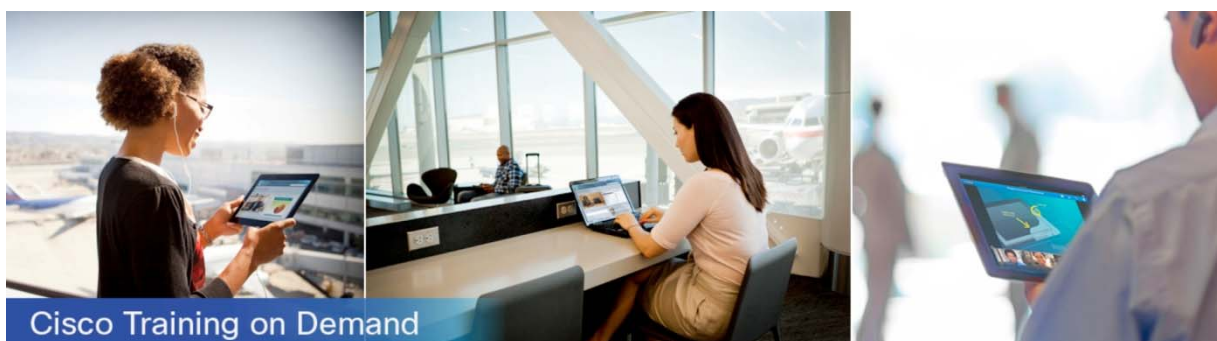


Learning Services

Cisco Training on Demand

Implementing Cisco IP Telephony & Video, Part 1 (CIPTV1)



Overview

Implementing Cisco® IP Telephony & Video, Part 1 (CIPTV1) Version 1.0 is a Cisco Training on Demand course. It prepares you with the knowledge and the capabilities to implement a Cisco Collaboration solution at a single-site environment. You focus primarily on Cisco Unified Communications Manager Version 10, and later, which is the call-routing and signaling component for the Cisco Collaboration solution.

Interested in purchasing this course in volume at discounts for your company? Contact ctod-sales@cisco.com.

Duration

The CIPTV1 Training on Demand course is a self-paced course based on the 5-day instructor-led training. It consists of 24 sections of instructor video and text, totaling more than 7 hours of instruction along with interactive activities, 9 hands-on lab exercises, content review questions, and challenge questions.

Target Audience

The primary audiences for this course are those preparing for the 300-070 CIPTV1 exam, network administrators and network engineers who are CCNP® Collaboration candidates. Secondary audiences are systems engineers who are interested in broadening their learning and experience in the Cisco Collaboration environment.

Objectives

After completing this course, you should be able to:

- Describe the role of Cisco Unified Communications Manager in a Cisco Collaboration solution, including its functions, architecture, deployment, and redundancy options, and how to deploy endpoints, users, and Cisco IP Phone services
- Describe the functions and the purpose of a dial plan, explain how to implement on-cluster calling, and how to configure Media Gateway Control Protocol (MGCP), H.323, and Session Initiation Protocol (SIP) gateways; also, how to create a dial plan that supports inbound and outbound off-cluster calling for numbers and URIs
- Describe the types of media resources that Cisco Unified Communications Manager supports, how to configure Cisco Unified Communications Manager server software-based media resources, and how to implement Cisco hardware-based media resources
- Describe how to implement audio and video conferencing devices that can be used with Cisco Unified Communications Manager, built-in Cisco Unified Communications Manager software audio bridge, Cisco IOS® based audio and video conference bridges, and Cisco TelePresence® conferencing products, including Cisco TelePresence MSE 8000, Cisco TelePresence Server, Cisco TelePresence MCU, and Cisco TelePresence Conductor
- Provide an introduction to quality of service (QoS) with emphasis on the QoS components, often referred to as the QoS toolkit, that are used to provide services for various business applications

Course Prerequisites

The knowledge and skills recommended before attending this course are:

- Working knowledge of fundamental terms and concepts of computer networking, including LANs, WANs, switching, and routing
- Ability to configure and operate Cisco routers and switches and to implement VLANs and Dynamic Host Configuration Protocol (DHCP)
- Basics of digital interfaces, public switched telephone networks (PSTNs), and voice over IP (VoIP)
- Fundamental knowledge of converged voice and data networks

Course Outline

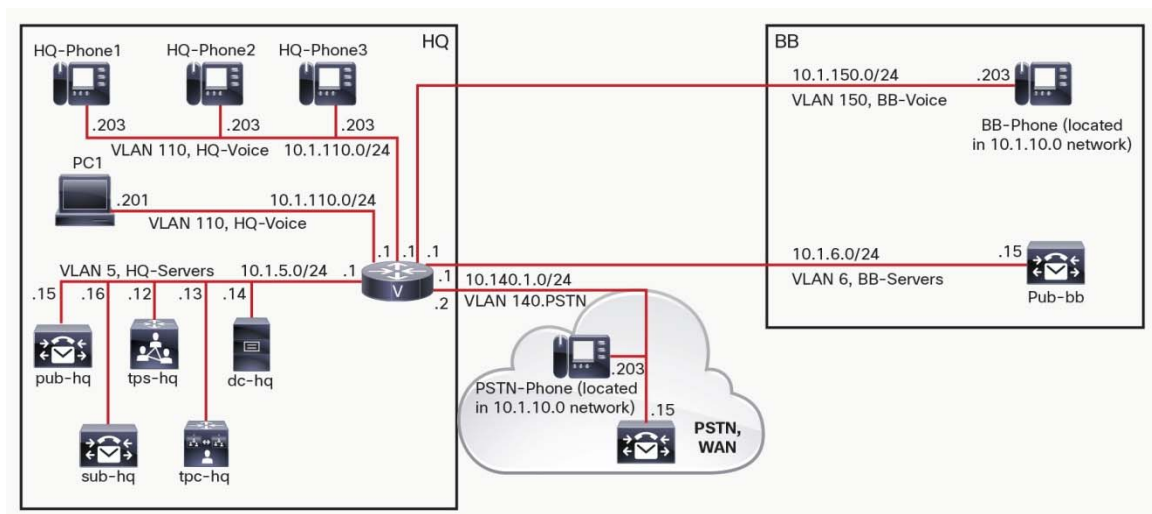
- Course Introduction
- Section 1: Describing the Role of Cisco Unified Communications Manager, Its Architecture, and Its Deployment and Redundancy Options
- Section 2: Performing Initial Cisco Unified Communications Manager Configuration
- Section 3: Deploying Endpoints, Users, and IP Phone Services
- Section 4: Describing Dial Plan Components
- Section 5: Implementing Endpoint Addressing and Call Routing
- Section 6: Implementing Calling Privileges
- Section 7: Implementing Call Coverage in Cisco Unified Communications Manager
- Section 8: Analyzing Single-Site Off-Cluster Calling Requirements

- Section 9: Implementing PSTN Access Using MGCP Gateways
- Section 10: Describing Cisco IOS H.323 and SIP Gateways and implementing PSTN Access Using H.323 Gateways
- Section 11: Describing the Cisco Unified Border Element
- Section 12: Using the Cisco Unified Border Element for URI Dialing and Describing Dial Plan Interworking
- Section 13: Describing Media Resources in Cisco Unified Communications Manager
- Section 14: Implementing Annunciators and MOH
- Section 15: Implementing MTPs
- Section 16: Describing Conferencing Devices and Their Functions
- Section 17: Implementing Conference Bridges
- Section 18: Describing Cisco TelePresence MSE 8000
- Section 19: Implementing Cisco TelePresence Server
- Section 20: Implementing Cisco TelePresence Conductor
- Section 21: Analyzing Quality of Service Requirements
- Section 22: Describing QoS Components and Their Functions
- Section 23: Implementing Marking
- Section 24: Implementing Policing and Shaping

Labs Outline

This course contains six hands-on lab exercises.

Figure 1. Topology for All Labs in Implementing Cisco IP Telephony & Video, Part 1



The labs included in this course are:

- Discovery Lab 2.6: Configure Cisco Unified Communications Manager Initial Settings
- Discovery Lab 3.11: Deploy Endpoints and Users
- Discovery Lab 5.8: Implement Endpoint Addressing and Call Routing

- Discovery Lab 6.6: Implement Calling Privileges
- Discovery Lab 57.8: Implement Call Coverage
- Discovery Lab10.6: Exploring Cisco IOS Gateway Inbound Dial Peer Functions
- Discovery Lab 10.13: Implement PSTN Calling Using H.323 Gateways
- Discovery Lab 12.5: Implement PSTN Calling Using SIP Trunks Through Cisco Unified Border Element
- Discovery Lab 12.7: Use Cisco Unified Border Element for URI Dialing

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