

Cisco® Implementing Cisco® IP Telephony & Video, Part 1 v1.0 (CIPTV1)

Course Overview

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This is a 5-day class

Implementing Cisco IP Telephony & Video, Part 1 (CIPTV1) v1.0 is a five-day course that prepares the learner for implementing a Cisco Collaboration solution at a single-site environment. This course focuses primarily on Cisco Unified Communications Manager Version 10.x, which is the call-routing and signaling component for the Cisco Collaboration solution.

Who Should Attend

The primary target audiences for the course are:

Network administrators and network engineers
CCNP Collaboration candidates
Secondary audiences are:

Systems engineers

Course Objectives

Upon completing this course, the learner will be able to meet these overall objectives:

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 and explains how to implement on-cluster calling.

Describe how to configure MGCP, H.323, and SIP gateways. The module also describes 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 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 Outline

1 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

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2 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

3 Implementation of Single-Site Off-Cluster Calling

Analyzing 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 Cisco Unified Border Element for URI Dialing
Describing Dial Plan Interworking

4 Media Resources

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

5 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

6 Quality of Service

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