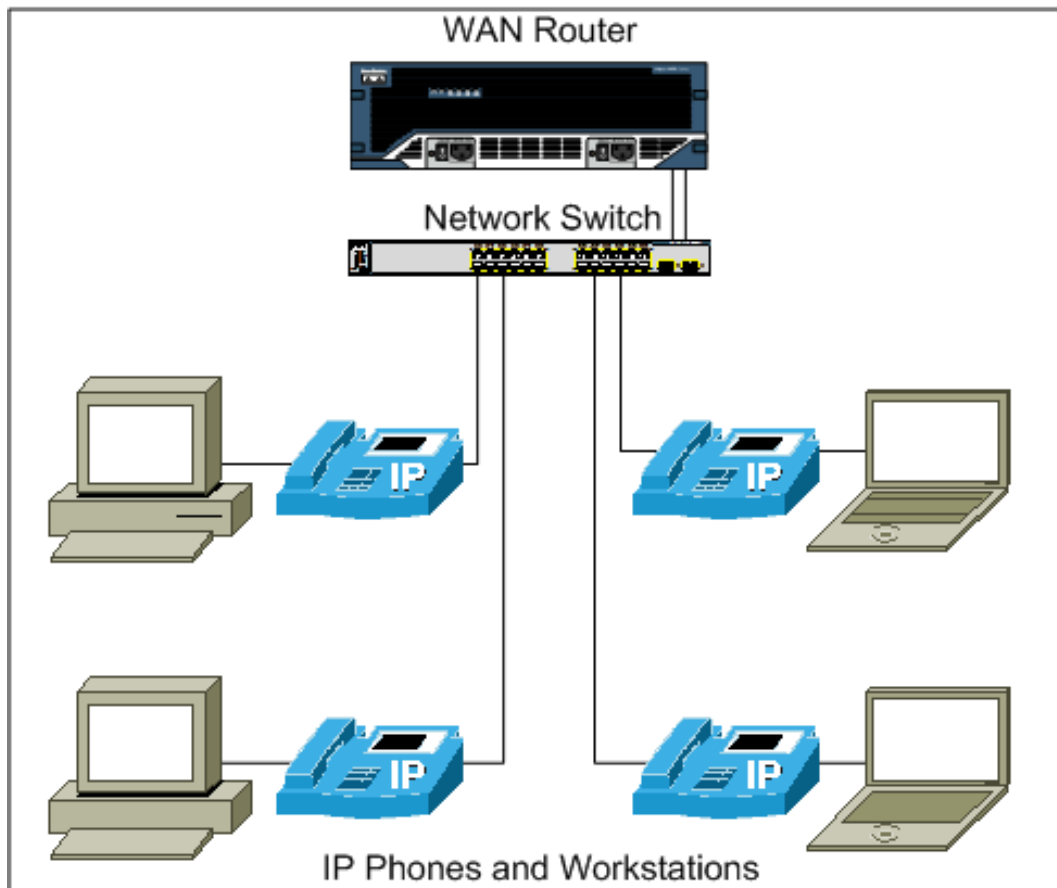




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## Cisco IPT & Video

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# Implementing Cisco IP Telephony & Video v1.0 (300-070)

## Course Overview:

The Implementing Cisco IP Telephony & Video, Part 1 (CIPTV1) v1.0 exam is a 75 minute 65-75 question assessment that tests learners for implementing a Cisco Unified Collaboration solution in a single-site environment. The exam focuses primarily on Cisco Unified Communications Manager. Candidates will need to show they can configure Cisco Unified Communications Manager, implement gateways and Cisco Unified Border Element, and build dial plans to place on-net and off-net voice and video calls using traditional numbered dial plans and Uniform Resource Identifiers (URIs). Candidates will also implement media resources, including voice and video conferences, and be able to describe how quality of service ensures that the network provides the required quality to voice and video calls.

## Course Outline

### Dial Plan

- Describe the components of a dial plan
- Describe path selection (inbound, outbound, on-net and off-net)
- Describe the concept of digit manipulation (regular expressions, translations and transformations)
- Describe CUCM calling privileges, rules, and class of services (such as CSS and partitions)
- Describe VCS calling privileges, rules, class of services (transforms, search rules, and zones)
- Create and document a dial plan
- Modify, analyze, and document a dial plan
- Identify the different types of dial plans (E.164, H323, URI, and DNS, etc) and when to use them
- Describe the interworking between the different types of dial plans
- Test and verify the dial plan
- Configure SIP route patterns

## **Describe the Basic Operation and Components Involved in a Call**

- Identify and analyze voice/video call flows
- Choose the appropriate codec for a given scenario (G.711, H.264, etc.)

## **Configure an IOS Gateway**

- Configure digital voice ports
- Configure dial-peers
- Configure digit manipulation
- Configure calling privileges
- Verify dial-plan implementation
- Identify possible functions of the CUBE
- Configure the CUBE relevant to video

## **Configure Conferencing Device**

- Select the optimal device (single screen MCUs, IOS gateways, TelePresence server)
- Configure the conferencing devices (single screen MCUs, IOS gateways, TelePresence server)
- Configure Cisco TelePresence Conductor
- Describe global conference settings
- Configure MSE 8000 chassis, supervisor blade and media blade

## **QoS Model**

- Describe the DiffServ QoS mode
- Describe marking based on CoS, DSCP, and IP precedence
- Distinguish where to configure Layer 2 to Layer 3 QoS mapping
- Describe policing and shaping
- Justify the requirement for QoS when implementing video

## **Describe and Configure Cisco Unified Communications Manager to Support On-Cluster Calling**

- Configure a Cisco Unified Communications Manager group
- Configure Cisco Unified Communications Manager profiles and device pools
- Configure Cisco Unified Communications Manager templates

- Describe and configure a route plan for Cisco Unified Communications Manager to support off-net calling
- Describe Cisco Unified Communications Manager digit analysis
- Configure route patterns (including SIP route patterns)
- Configure route lists and route groups
- Configure digit manipulation

### **Configure Media Resources**

- Describe and configure the Cisco Unified Communications Manager to support features and applications (such as conference bridges, music on hold, RSVP, transcoders, etc.)
- Configure IP phone services
- Describe and configure Cisco Unified Communications Manager media resources

### **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

### **Who Can attend:**

- 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.

### **Number of Hours: 50hrs**

### **Certification: 300-070 CIPTV1**

### **Key Features:**

- One to One Training
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