

**Course Description:** Implementing Cisco Unified Communications IP Telephony Part 1 (CIPT1) v6.0 prepares you for installing and configuring a Cisco Unified Communications Manager solution in a single site. This course focuses primarily on Cisco Unified Communications Manager Release 6.0, the call routing and signaling component for the Cisco Unified Communications solution.

This course includes lab activities in which you will perform post-installation tasks, configure Cisco Unified Communications Manager and switches, implement Media Gateway Control Protocol (MGCP) gateways, and build dial plans to place on-net and off-net phone calls. You will also implement media resources, Lightweight Directory Access Protocol (LDAP), voice-mail integration, and numerous user telephone features.

**Who Should Attend:** The primary audiences for this course are Network designers, Network administrators, Network engineers, Network managers, and Systems engineers.

**Prerequisites:** The knowledge and skills that a learner must have before attending this course include working knowledge of fundamental terms and concepts of computer networking, to include LANs, WANs, and IP switching and routing, ability to configure and operate Cisco routers and switches and to enable VLANs and DHCP, fundamental knowledge of converged voice and data networks, and working knowledge of the MGCP and its implementation on Cisco IOS gateways.

**Benefits of Attendance:** Upon completion of this course, students 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 platform and general administration, initial configuration, and user management
- Configure Cisco Unified Communications Manager to support on-cluster calling in a single-site deployment
- Implement a dial plan in Cisco Unified Communications Manager to make internal calls and place calls within the public switched telephone network (PSTN)
- Configure Cisco Unified Communications Manager media resources, features, and voice-mail integration

## Course Outline:

### Course Introduction

Overview  
Course Goal and Objectives  
Course Flow  
Additional References  
Your Training Curriculum

### Module 1: Introduction to Cisco Unified Communications Manager

Understanding Cisco Unified Communications Manager Architecture  
Understanding Cisco Unified Communications Manager Deployment and Redundancy Options  
Installing and Upgrading Cisco Unified Communications Manager  
Lab 1-1: Cisco Unified Communications Manager Installation and Upgrade Discovery

### Module 2: Administration of Cisco Unified Communications Manager

Understanding Cisco Unified Communications Manager Administration Options  
Managing Services and Initial Configuration of Cisco Unified Communications Manager  
Managing User Accounts in Cisco Unified Communications Manager  
Lab 2-1: Exploring Cisco Unified Communications Manager Administration Options  
Lab 2-2: Configuring Cisco Unified Communications Manager Initial Settings  
Lab 2-3: Managing User Accounts in Cisco Unified Communications Manager

### Module 3: Single-Site On-Net Calling

Understanding Endpoints in Cisco Unified Communications Manager  
Configuring Cisco Catalyst Switches for Endpoints  
Implementing and Hardening IP Phones  
Lab 3-1: Configuring Voice VLANs  
Lab 3-2: Implementing IP Phones  
Lab 3-3: Hardening IP Phones

### Module 4: Single-Site, Off-Net Calling

Implementing MGCP Gateways in Cisco Unified Communications Manager  
Configuring Cisco Unified Communications Manager Call-Routing Components  
Implementing Cisco Unified Communications Manager Digit Manipulation  
Implementing Calling Privileges in Cisco Unified Communications Manager  
Implementing Call Coverage in Cisco Unified Communications Manager  
Lab 4-1: Implementing MGCP Gateways  
Lab 4-2: Configuring Cisco Unified Communications Manager Call-Routing Components  
Lab 4-3: Implementing Digit Manipulation  
Lab 4-4: Implementing Calling Privileges in Cisco Unified Communications Manager  
Lab 4-5: Implementing Call Coverage in Cisco Unified Communications Manager

### Module 5: Implementation of Media Resources, Features, and Applications

Implementing Media Resources

Configuring Cisco Unified Communications Manager User Features  
Configuring Presence-Enabled Speed Dials and Lists  
Integrating Cisco Unified Communications Manager with Voice-Mail Systems  
Implementing Cisco Unified Video Advantage  
Lab 5-1: Implementing Media Resources  
Lab 5-2: Configuring Cisco Unified Communications Manager User Features  
Lab 5-3: Configuring Presence-Enabled Speed Dials and Lists  
Lab 5-4: Integrating Cisco Unified Communications Manager to Voice-Mail Systems  
Lab 5-5: Enabling Cisco Unified Video Advantage