

## Advanced Services' Deploying Cisco Unified Communications Manager (CMBC) Version 7.0



The Deploying Cisco® Unified Communications Manager 7 (CMBC7) course teaches students how to integrate Cisco Unified Communications Manager into a network to meet voice and data requirements. Extensive practical labs offer additional opportunities to learn by providing exercises to select, configure, and troubleshoot Cisco Unified Communications products such as Communications Manager Version 7 (formerly named CallManager), Cisco Analog Phone Gateways, digital signal processor (DSP) resources, Cisco IOS® Software gatekeeper, and Media Gateway Control Protocol (MGCP) and H.323 gateways.

### Duration

Five Days

### Target Audience

This course is for field and channel systems engineers and network engineers who deploy IP telephony solutions based on the Cisco Unified Communications architecture and Cisco Unified Communications Manager.

### Course Objectives

Upon completion of this course, you should be able to:

- Identify installation options for Cisco Unified Communications Manager
- Implement Cisco IP Phones and features
- Describe and implement advanced user features available in a Cisco Unified Communications Manager solution
- Implement voice gateways, using SCCP, MGCP, and H.323 protocols
- Configure dial plans to enable routing calls, accessing features, and controlling access
- Explain gatekeeper functions, configure a gatekeeper-controlled intercluster trunk (ICT), and establish gatekeeper resiliency using Gatekeeper Update Protocol (GUP)
- Implement advanced call routing features, including Call Admission Control, Automatic Alternate Routing, and Gatekeeper CAC

- Configure Survivable Remote Site Telephony (SRST) with both basic commands and Cisco Unified Communications Manager and monitor and troubleshoot its operation
- Utilize media resources for Music on Hold, transcoding, and other features
- Identify and use common Cisco Unified Communications Manager troubleshooting and network management tools

### Course Prerequisites

Following are the prerequisites for this course.

- CCNA® or CCNP® certification or equivalent experience
- CCNA Voice® (IIUC course) or CVOICE® or equivalent experience

To locate Cisco courses that cover the listed prerequisites, go to the Cisco Training & Events web page found at <http://www.cisco.com/web/learning/index.html>.

### Course Outline

The course outline is as follows:

- Course Overview
- Module 1: Configuring Cisco Unified Communications Manager
  - Lesson 1: Examining Cisco Unified Communications Solutions
  - Lesson 2: Installing, Upgrading, Backing-Up, and Restoring Cisco Unified Communications Manager
  - Lesson 3: Configuring Unified Communications Manager System-Wide Functions
  - Lesson 4: Provisioning Cisco IP Phones and User Features
- Module 2: Gateways
  - Lesson 1: Understanding Gateways
  - Lesson 2: Implementing Analog Voice Gateways with SCCP
  - Lesson 3: Implementing MGCP Gateways
  - Lesson 4: Implementing H.323 Gateways
- Module 3: Dial Plans and Advanced Call Routing
  - Lesson 1: Understanding and Implementing Dial Plans
  - Lesson 2: Implementing Intercluster Trunks and Gatekeepers
  - Lesson 3: Implementing Class of Service
  - Lesson 4: Implementing Call Admission Control
  - Lesson 5: Implementing Survivable Remote Site Telephony
- Module 4: Media Resources and Advanced Unified Communications
  - Lesson 1: Understanding and Implementing Media Resources
  - Lesson 2: Configuring Advanced User Features and Administration
- Module 5: Managing and Troubleshooting Unified Communications
  - Lesson 1: Troubleshooting Cisco Unified Communications Manager
  - Lesson 2: Implementing Call Detail Records

## Lab Outline

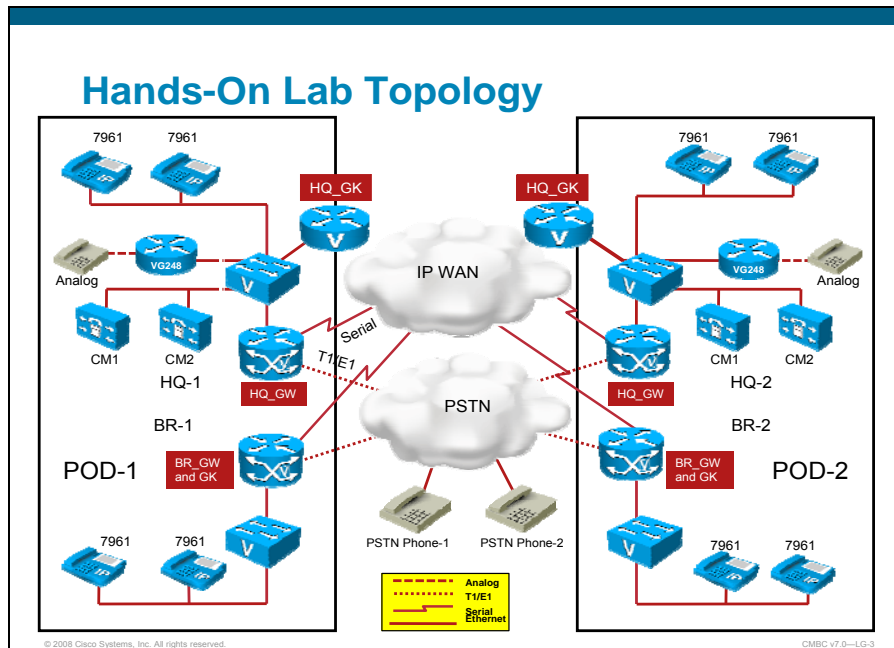
The hands-on labs are a vital part of this course. The lab exercises include the following:

- Lab 1-1: Exploring the Hands-on Lab Topology
- Lab 1-2: Basic Unified Communications Manager Setup
- Lab 1-3: Configuring Unified Communications Manager System-wide Parameters
- Lab 1-4: Provisioning Cisco IP Phones
- Lab 1-5: Verifying Cisco Unified Communications Manager Redundancy
- Lab 1-6: Implementing Advanced User Features
- Lab 2-1: Implementing SCCP Gateways
- Lab 2-2: Implementing MGCP Gateways
- Lab 2-3: Implementing H.323 Gateways
- Lab 3-1: Adding Route Patterns to Dial Plans
- Lab 3-2: Configuring a Non-Gatekeeper Intercluster Trunk
- Lab 3-3: Configuring a Gatekeeper-Controlled Intercluster Trunk
- Lab 3-4: Configuring Gatekeeper Redundancy
- Lab 3-5: Configuring Class of Service
- Lab 3-6: Configuring PLAR
- Lab 3-7: Configuring Intercom Features
- Lab 3-8: Configuring Route Plan Reports
- Lab 3-9: Configuring Call Admission Control and AAR
- Lab 3-10: Configuring Gatekeeper-based CAC
- Lab 3-11: Configuring SRST on a Branch Office Router
- Lab 4-1: Configuring Meet Me Conferencing and Enabling Media Resources
- Lab 4-2: Configuring IOS-Based Transcoder Resources
- Lab 4-3: Configuring Music on Hold
- Lab 4-4: Configuring Media Resource Groups and Lists
- Lab 4-5: Creating User Profiles
- Lab 4-6: Configuring Extension Mobility
- Lab 5-1: Troubleshooting Cisco Unified Communications Manager

## Lab Topology

The following diagram illustrates the lab topology that is used in this course.

**Figure 1.** Lab Topology of Deploying Cisco Unified Communications Manager 7



## Registration Information

For more information about schedules and registration for this course, please contact [aeskt\\_registration@cisco.com](mailto:aeskt_registration@cisco.com).

## For More Information

For more information about Advanced Services Education course offerings, including custom training options, as well as Advanced Services Curriculum Planning Services and Advanced Services Technical Knowledge Library (TKL), refer to the Advanced Services Education Website at [www.cisco.com/go/ase](http://www.cisco.com/go/ase).



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