CIPT1 - Implementing Cisco Unified Communications IP Telephony Part 1 v8.0

Cisco Course v8.0 | Cisco Unified Communications Manager Software v8.0 | Prepares you for Cisco Exam 642-447 CIPT1 v8.0.

This hands-on course prepares you for configuring a Cisco Unified Communications Manager (CUCM) solution in a multisite environment.

Focusing primarily on CUCM v7.x/8.x, you will learn basic administrative tasks, such as configuring users and associating them with phones, as well as more advanced topics, such as unified mobility, Media Gateway Control Protocol (MGCP), H.323 gateways, and media resources.

In today's business world, globalization is key, so you will build dial plans to place on-net and off-net phone calls in North American and European sites. You'll learn how to globalize your dial plan using E.164 addressing and how to implement routing and calling privileges based on location.

What You'll Learn

- How the CUCM administrative and service GUIs work
- Activate, start, and stop CUCM services
- Configure base CUCM components, such as date time groups, device pools, Call Manager groups, and other common elements
- Add and delete phones manually and using auto registration
- Use the BAT tool to add phones and users and to change configurations
- Add users, assign them capabilities, and associate them with phones
- Configure phone features: Music on Hold and phone services
- Set up media resources to use for MOH and conferencing
- The NANP
- Build a dial plan including route patterns, route lists, and route groups supporting both the NANP and dialing in Europe
- Deploy line/device Class of Service using partitions and calling search spaces and translation patterns for call blocking
- Investigate globalization using E.164 addressing
- Configure advanced Class of Service capabilities, such as time of day routing, client matter codes, and forced access codes
- Call coverage (hunt lists) and configuration
- Unified mobility (single number reach)
- Configure Presence and Busy Lamp Fields (BLFs)
- Configure DSP resources

Who Needs to Attend

Network professionals who install, configure, and manage Cisco Unified Communications solutions

Prerequisites

- CVOICE - Implementing Cisco Unified Communications Voice over IP and QoS v8.0

Follow-On Courses

- CIPT2 - Implementing Cisco Unified Communications IP Telephony Part 2 v8.0
- TVOICE - Troubleshooting UC Systems v8.0
- CAPPS - Integrating Cisco Unified Communications Applications v8.0

Certification Programs and Certificate Tracks

This course is part of the following programs or tracks:

- CCNP Voice - Cisco Certified Network Professional Voice

Why Global Knowledge?

Our lab environment has been customized to ensure that you learn the skills you need for multisite deployment and globalization in North America. Other training partners provide a more simplistic topology with a HQ site in North America and minimal implementation of the North American Numbering Plan (NANP). Our enhanced labs include:

- A focus on the NANP
- HQ in North America with multiple branches in North America with overlapping extensions
- A branch in Frankfurt
- Implement a variable-length on-net dial plan without globalization supporting multiple sites with overlapping extensions
- Transition to a globalized E.164 dial plan.

Our sophisticated telephony simulation lets you configure PRI and FXO connections to the PSTN, T1-CAS DS0-Groups to a channel bank connected to two PBXs, and FXS ports connected to analog phones. Each 2811 router is provisioned with a PVDM2-64 providing DSP resources and a serial card for WAN connectivity.

Course Outline

1. Cisco Unified Communications Manager (CUCM)

- Architecture
- Deployment and Redundancy Options

2. CUCM Administration

- Managing Services and Initial Configuration
- Managing User Accounts

3. Single-Site On-Net Calling

- Endpoints in CUCM
- Implementing IP Phones

4. Single-Site Off-Net Calling

- PSTN Gateways in CUCM
- CUCM Call Routing Components
- CUCM Digit Manipulation
- Calling Privileges and Restrictions
- Gateway Selection and PSTN Access Features
- Call Coverage

5. Implementing Media Resources, Features, and Applications

- Configuring CUCM IP Phone Services
- Presence-Enabled Speed Dials and Lists

6. Features and Applications for Multisite Deployments

- Cisco Unified Mobility

Labs

Global Knowledge Unified Communications CIPT1 Lab Topology

Our investment in enhanced and exclusive labs means you get the experience you need using current software and hardware in North America.

Cisco Unified Communications labs are based on pods. Two students form a team and have control of one pod, referred to by the letter N. The logical topology for a Global Knowledge Unified Communications pod is illustrated in the lab topology diagram for this course. A central Call Manager cluster deployed by your instructor is used to provide an IP telephony test environment that includes a simulated PSTN complete with 3-digit service codes, overlapping 7- and 10-digit patterns, and 11-digit and international patterns. Each pod also contains 2811 Integrated Services Routers running IOS 15.0(1)M2. The PSTN is accessible via a PRI, FXO ports, and SIP trunks. Global Knowledge lab topologies include Headquarters, Branch A, Branch B (with extensions that

overlap with Branch A), and a Frankfurt branch. CIPT1 uses Headquarters and a Frankfurt branch.

Each pod has three IP phones. Two of the phones are internal and the third is a test phone used to simulate outside callers. Cisco IP Communicator is used for phones at the HQ and Branch sites. Each pod has a CUCM Publisher.

Lab 1: Topology and Deployment
Lab 2: CUCM Initial Setup
Lab 3: Users: End Users
Lab 4: Enhanced - Users: Application Users
Lab 5: User Management: Bulk Administration Tool (BAT)
Lab 6: Exclusive - HQ Common Device Configuration
Lab 7: Enhanced - Basic Cisco IP Phone and IP Communicator Configuration
Lab 8: IP Phone Hardening
Lab 9: BAT: Phones
Lab 10: Configuring SIP Endpoints (Optional)
Lab 11: MGCP Gateway Lab: Global Protocol Configuration
Lab 12: MGCP Gateway Lab: PRI Incoming
Lab 13: Enhanced - H.323 Gateway Lab: Global Protocol Configuration
Lab 14: Exclusive - H.323 Gateway Lab: FXO Incoming
Lab 15: Enhanced - Dial Plan Lab: PRI Outgoing to PSTN
Lab 16: Exclusive - Dial Plan Lab: FXO Backup for 911
Lab 17: Enhanced - Dial Plan Lab: Line/Device - Geographic Routing
Lab 18: Exclusive - Dial Plan Lab: European Branch Deployment
Lab 19: Exclusive - Dial Plan Lab: European Branch Dial Plan
Lab 20: Enhanced - Dial Plan Lab: E.164 and Globalization
Lab 21: Enhanced - Dial Plan Lab: Line/Device Class of Service
Lab 22: Enhanced - Class of Service Lab: Additional Applications
Lab 23: Hunt Lists and Call Coverage (Optional)
Lab 24: Music on Hold and Software Conference Resources
Lab 25: DSP Resources
Lab 26: Users Features: IP Phone Services
Lab 27: Presence and BLF
Lab 28: Unified Mobility

Optional Feature Labs:
Lab 29: Exclusive - Platform Administration
Lab 30: Exclusive - Users Features 1: Softkeys and DND
Lab 31: Exclusive - Users Features 2: Call Park and Pickup
Lab 32: Exclusive - Users Features 3: Shared Lines and Barge
Lab 33: Exclusive - Users: Managing Users via LDAP Integration

Optional Legacy Port Labs:
Lab 34: Exclusive - MGCP Gateway Lab 4: FXS Endpoints (Optional)
Lab 35: Exclusive - MGCP Gateway Lab 5: T1-CAS Endpoints (Optional)
Lab 36: Exclusive - Dial Plan Lab 4: MGCP T1-CAS (Optional)

Classroom

Course Code: 5737

Enhanced Course

$3495 USD
5 Day Course
GSA Eligible
35 Cisco Learning Credits

Other Delivery Methods

Virtual Classroom
On-Site
Self-Paced

Not Just One Small Step.
Cisco students rate us top quality.

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Classroom Dates and Locations			
Jul 8 - 12, 2013	Sacramento, CA	Oct 7 - 11, 2013	Boston, MA
Jul 15 - 19, 2013	Morristown, NJ	Oct 14 - 18, 2013	Atlanta, GA
Jul 22 - 26, 2013	Orlando, FL	Oct 21 - 25, 2013	Morristown, NJ
Aug 5 - 9, 2013	Dallas, TX	Oct 21 - 25, 2013	Los Angeles, CA
Aug 19 - 23, 2013	Columbia, MD	Nov 4 - 8, 2013	Dallas, TX
Aug 26 - 30, 2013	Chicago (Schaumburg), IL	Nov 11 - 15, 2013	San Jose, CA
Aug 26 - 30, 2013	New York, NY	Dec 2 - 6, 2013	Chicago (Schaumburg), IL
Sep 9 - 13, 2013	San Jose, CA	Dec 9 - 13, 2013	New York, NY
Sep 16 - 20, 2013	Washington, DC	Dec 9 - 13, 2013	Dulles, VA
Sep 16 - 20, 2013	Houston, TX	Dec 16 - 20, 2013	Washington, DC
Sep 23 - 27, 2013	Raleigh, NC		
Sep 30 - Oct 4, 2013	Columbus, OH		

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