

Cisco Certified Voice Professional (CCVP) Passport V6.0 release

- **£6,100 for all five CCVP courses saving £3,150**
- **Labs use CUCM v6.0 with revised CIPT and CVoice courseware**
- **25 days training over a 12 month period**
- **Choice of training centres**

CUCM v6.0 CCVP Courses LINUX Platform

Course	Duration
Cisco Voice over IP (CVOICE) v6.0	5 days
Quality of Service (QoS) v2.1	5 days
Cisco IP Telephony Part 1 (CIPT1) v6.0	5 days
Cisco IP Telephony Part 2 (CIPT2) v6.0	5 days
Troubleshooting Cisco Unified Communications Systems (TUC) v1.0	5 days

CCVP Track exams (Based on CUCM v6.0)

Code	Course Title	Exam
CVOICE	Cisco Voice over IP	642-436
QoS	Quality of Service	642-642
CIPT 1	Cisco IP Telephony Part 1	642-446
CIPT 2	Cisco IP Telephony Part 2	642-456
TUC	Troubleshooting Cisco Unified Communications Systems	642-426

Changes announced in March 2007 for the new v6 CCVP

1. The GWGK exam is no longer required
2. CIPT part 2 has changed from a 3-5 day course
3. There are separate CIPT part 1 and 2 exams in place of a combined exam
4. The CVoice course is revised for the v6.0 CCVP track



Course Title: Cisco Voice over IP (CVOICE) v6.0
Duration: 5 days

This five-day course provides an understanding of converged voice and data networks and also the challenges faced by the various network technologies. The course also provides network administrators and network engineers with the knowledge and skills required to integrate gateways and gatekeepers into an enterprise VoIP network. This course is one of several courses in the Cisco CCVP™ track that addresses design, planning, and deployment practices and provides comprehensive hands-on experience in configuration and deployment of VoIP networks.

Certification

This course forms a part of the CCVP and completes course material for the new **642-436 CVOICE** exam announced in March 2008.

Objectives

After completing this course the delegate will be able to:

- Describe VoIP, voice gateways, special requirements for VoIP calls, codecs and codec complexity, and how DSPs are used as media resources on a voice gateway
- Configure gateway interconnections to support VoIP and PSTN calls and to integrate with a PSTN and PBX
- Describe the basic signalling protocols that are used on voice gateways and configure a gateway to support calls using the various signalling protocols
- Define a dial plan, describe the purpose of each dial plan component, and implement a dial plan on a voice gateway
- Implement gatekeepers and directory gatekeepers, and identify redundancy options for gatekeepers
- Implement a Cisco UBE gateway to connect to an Internet telephony service provider

Pre-Requisites

Cisco Certified Networking Associate (CCNA) level of knowledge

Content

Introduction to VoIP

- Introducing VoIP
- Introducing Voice Gateways
- Specifying Requirements for VoIP Calls
- Understanding Codecs, Codec Complexity and DSP Functionality

Voice Port Configuration

- Understanding Call Types
- Configuring Analog Voice Ports
- Understanding Dial Peers
- Configuring Digital Voice Ports
- Understanding QSIG

VoIP Gateway Implementation

- Implementing H.323 Gateways
- Implementing MGCP Gateways
- Implementing SIP Gateways

Content (continued)

Dial Plan Implementation on Voice Gateways

- Understanding Dial Plans
- Implementing Numbering Plans Configuring Digit Manipulation
- Configuring Path Selection
- Implementing Calling Privileges on Cisco IOS Gateways

H.323 Gatekeepers

- Introducing Gatekeepers
- Configuring Basic Gatekeeper Functionality
- Implementing Gatekeeper-Based CAC

ITSP Connectivity

- VoIP Signaling and Call Control
- Understanding Special Requirements for External VoIP Connections
- Implementing a Cisco UBE

Course Title: Cisco IP Telephony Part 1 (CIPT1) v6.0
Duration: 5 days

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.

Certification

This course forms a part of the CCVP and completes course material for the exam **642-446 CIPT1**

Objectives

After completing this course the delegate 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

Pre-Requisites

- CCNA
- CVOICE

Content

Introduction to Cisco Unified Communications Manager

- Understanding Cisco Unified Communication Manager Architecture
- Understanding Cisco Unified Communications Manager Deployment and Redundancy Options
- Installing and Upgrading Cisco Unified Communications Manager

Administration of Cisco Unified Communications Manager

- Understanding Cisco Unified Communications Manager Administration Options
- Managing Services and Initial Configuration of Cisco Unified Communications
- Managing User Accounts in Cisco Unified Communications Manager
- Configuring Cisco Unified CallManager Release 5.0 Basic Settings
- Implementing Disaster Recovery

Content (continued)

Single-Site On-Net Calling

- Understanding Endpoints in Cisco Unified Communications Manager
- Configuring Cisco Catalyst Switches for Endpoints
- Implementing and Hardening IP Phones

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

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 Configuring Cisco Unified SRST

Course Title: Cisco IP Telephony Part 2 (CIPT2) v6.0
Duration: 5 days

Implementing Cisco Unified Communications IP Telephony Part 2 (CIPT2) v6.0 prepares you for installing and configuring, a Cisco Unified Communications Manager solution in a Multi-site environment. This course focuses on Cisco Unified CallManager Release 6.0, the call routing and signaling component for the Cisco Unified Communications solution. It also includes H.323 and Media Gateway Control Protocol (MGCP) gateway implementation, the use of a Cisco Unified Border Element, and configuration of Survivable Remote Site Telephony (SRST), different mobility features, and voice security. This course includes lab activities in which you will apply a dial plan for a Multi-site environment, configure survivability for remote sites during WAN failure and implement solutions to reduce bandwidth requirements in the IP WAN. You will also enable call admission control (CAC) and automated alternate routing (AAR), a feature that allows rerouting of calls over the public switched telephone network (PSTN) in case of no available bandwidth. There are labs for implementing Cisco Unified Communications Manager Device Mobility, Cisco Unified Communications Manager Extension Mobility, Cisco Unified Mobility, and voice security.

Certification

This course forms a part of the CCVP and completes course material for the exam **642-456 CIPT2**

Objectives

After completing this course the delegate will be able to:

- Describe the issues in multi-site deployments and their solutions, and describe and configure required dial plan elements
- Implement call-processing resiliency in remote sites using SRST, MGCP fallback, and Cisco Unified Communications Manager Express
- Implement CAC to prevent oversubscription of the IP WAN
- Implement Cisco IOS Tcl and VoiceXML applications, along with mobility features such as Cisco Unified Communications Manager Device Mobility, Cisco Unified Communications Manager Extension Mobility, and Cisco Unified Mobility, so that users are reachable via their office phone numbers, regardless of their physical location and the various devices they may use
- Secure a Cisco Unified Communications IP telephony deployment

Pre-Requisites

- CCNA
- CVOICE
- CIPT Part 1

Content

Multi-site deployment

- Identifying Issues in a Multi-site Deployment
- Identifying Solutions for a Multi-site Deployment
- Implementing Multi-site Connections Hardening the IP Phone
- Implementing a Dial Plan for Multi-site Deployments

Content (continued)

Centralized Call-Processing Redundancy

- Examining Remote Site Redundancy Options
- Implementing SRST and MGCP Fallback
- Implementing Cisco Unified Communications Manager Express in SRST Mode

Bandwidth Management and Call Admission Control

- Implementing Bandwidth Management
- Implementing Call Admission Control

Features and Applications for Multi-site Deployments

- Implementing Call Applications on Cisco IOS Gateways
- Implementing Device Mobility
- Implementing Extension Mobility
- Implementing Cisco Unified Mobility

Multi-site Deployments

- Understanding Cryptographic Fundamentals and PKI
- Understanding Native Cisco Unified Communications Manager Security Features and Cisco Unified Communications Manager PKI
- Implementing Security in Cisco Unified Communications Manager

Duration: 5 days
Course Title: Implementing Cisco Quality of Service (QoS) v2.1

Certification

This course forms a part of the CCVP and completes course material for exam **642-642 QOS**

Objectives

After completing this course the delegate will be able to:

- Explain the need to implement Quality of Service (QoS) and explain methods for implementing and managing QoS
- Identify and describe different models used for ensuring QoS in a network and explain key IP QoS mechanisms used to implement the models
- Explain the use of MQC and AutoQoS to implement QoS on the network
- Use Cisco QoS queuing mechanisms to manage network congestion
- Use Cisco QoS congestion avoidance mechanisms to reduce the effects of congestion on the network
- Use Cisco QoS traffic policing and traffic shaping mechanisms to effectively limit the rate of network traffic
- Successfully use Cisco link efficiency mechanisms to improve the bandwidth efficiency of the link
- Correctly select the most appropriate QoS mechanisms for providing QoS using Cisco best practices

Pre-Requisites

- Cisco Certified Networking Associate (CCNA)

Content

The Implementing Cisco Quality of Service (QoS) v2.2 course provides delegates with in-depth knowledge of IP QoS requirements, conceptual models using Differentiated Services (DiffServ), Integrated Services (IntServ) and Best Effort (over provisioning), and the implementation of IP QoS on Cisco IOS switch and router platforms.

- Introduction to IP QoS
- The Building Blocks of IP QoS
- Introduction to Modular QoS CLI and AutoQoS
- Classification and Marking
- Congestion Management
- Congestion Avoidance
- Traffic Policing and Shaping
- Link Efficiency Mechanisms
- QoS Best Practices



Course Title: Troubleshooting Unified Communications (TUC) v1.0
Duration: 5 days

This five-day course equips network professionals with the knowledge and skills required to troubleshoot Cisco Unified Communications Systems and solutions in differing deployments. TUC teaches troubleshooting methodology, triage, resources, tools, and fixes at the integrated system or solution level and for components such as Cisco Unified CallManager, Cisco Unity, video-conferencing, and infrastructure.

Certification

This course forms a part of the CCVP completing course material for exam **642-426 TUC**

Objectives

After completing this course the delegate will be able to:

- Troubleshoot unified Communications Systems
- Troubleshoot solutions and components
- Troubleshoot products by identifying and isolating problems,
- Recommend solutions and implement fixes

Pre-Requisites

- Cisco Certified Network Associate (CCNA)
- Implementing Cisco QoS (QoS)
- Cisco Voice over IP (CVoice)
- Cisco IP Telephony (CIPT)

Content

Troubleshooting Cisco Unified Communications Systems (TUC) v1.0 equips network professionals with the knowledge and skills required to troubleshoot Unified Communications Systems / solutions in Enterprise, Mid-Market, and Commercial deployments. TUC teaches troubleshooting methodology, triage, resources, tools and fixes at the integrated System / Solution level, and for components (such as Cisco Unified Call Manager, Cisco Unity, videoconferencing, and infrastructure).

- Troubleshooting Methodology
- Analyzing and Isolating Problems
- Common Unified Communications Problems Symptoms
- Fixing Problems
- Services, Resources and Tools for Troubleshooting