



Learning
Partner



CCIE Voice Preparation Workshop 1.0 (CCIE V)

Description

This bootcamp is designed to prepare students for the CCIE Voice exam. Over the 10 days candidates refresh their existing knowledge, gather detailed aspects of advanced technology they need to practice and gain vital test taking strategies. The course focuses entirely on practical experience. The students are exposed to full-scale labs that resemble the complexity of the CCIE Voice practical lab.

The course is of utmost importance for all experienced network engineers who are planning to take the CCIE Voice Exam and would like to quickly refresh their theoretical knowledge and to gain an additional practical experience in deploying advanced voice network solutions.

The bootcamp is delivered by an experienced CCIE instructor. The instructor is grading and commenting the lab work of the students, provides hints and explains the issues in wrap-up discussions.

Course Objectives

After finishing this course, students will be able to:

- Take the CCIE Voice Lab Exam
- Configure and troubleshoot advanced voice network solutions

Student Prerequisites

The students should possess an expert level knowledge in the field of Voice and IP Telephony. The class does not cover introductory material and candidates are expected to have a solid level of knowledge of the topics covered in order to receive the full benefit of the class. Taking the following courses is highly recommended:

- CVOICE (Cisco Voice over IP)
- CIPT (Cisco IP Telephony)
- IPTT (IP Telephony Troubleshooting)
- EVODD (Enterprise Voice over Data Design)
- QOS (Implementing Cisco QOS)
- IPT Bootcamp
- UCSE (Cisco Unified Communications System Engineers)
- CRSD (IPCC Express and IP-IVR Deployment)
- AEVAP (Advanced Enterprise Voice Accelerate Program)

Who Should Attend

CCIE Voice candidates

Length of Course

10 days

Maximum Class Size

8 Students

Class Locations

Sydney, Singapore, Beijing, Mumbai,
Other locations by arrangement

Course Outline

Day 1-7: Over the first seven days the course covers all practical skills and knowledge required for the CCIE Voice Lab Exam.

Day 8: Students develop an individual test taking strategy and improve their speed.

Day 9-10: The candidates are exposed to two full-scale labs.

The following lab exercises and technologies are covered:

Basic Campus Design

- DHCP, TFTP
- Catalyst voice and data VLAN configuration

Cisco CallManager Configuration

- Cisco CallManager groups, redundancies
- Device pools
- Phone registration
- Phone configuration
- Partitions and calling search spaces
- Pickup, Meetme and adhoc conference

Call Manager Express / SRST

- Basic configuration
- Interaction with Cisco CallManager
- Single-line, Dual-line, Shared-line and Overlay-line
- Call-Blocking, Call-Restrictions
- Configuring directories
- Caller ID blocking
- Paging
- Voicemail integration
- Auto attendant

Voice Gateway and Signaling

- Analog and digital voice protocols: analog FXS, E1, PRI, R2
- VoIP protocols: H323, MGCP, SCCP, RAS
- IOS gateway with NM-HDV
- Catalyst 6500 Gateway with WS-X6608-E1
- OS Gateways with voice translation rules

Call Routing

- CCM route patterns
- CCM route preference and redundancy
- CCM translation patterns
- Cisco CallManager and Gatekeeper configuration
- OS dial peers
- Digit manipulation and translation

Voice CODEC

- Regions
- G711ulaw, G729



Presented in conjunction with



Learning
Partner



Call Admission Control

- Location-based
- RAS-based

High Availability Features

- SRST
- AAR

Media Resource Management

- Media Resource Groups and Lists
- Conference bridge software and hardware (NM-HDV and WS-X6608-E1)
- Transcoder (NM-HDV and WS-X6608-E1)
- MTP
- MOH

QoS and WAN Considerations

- L2/L3 classifications and policing
- Queuing mechanisms
- LFI
- Catalyst switch QoS
- Multilink over Frame Relay-ATM

Unified Messaging

- Unity voicemail integration
- Unity administration

CRS/IPCC Express Application

- Default script configuration and integration
- Custom script configuration and integration

Call Manager Voice Applications

- Any native applications to Call Manager, examples are extension mobility, attendant console, IPMA

Fax

- Fax pass-through
- Fax relay

Further Information

Housley Communications

100 Walker Street
North Sydney NSW 2060
Australia
Tel: +61 2 9954 4055
Fax: +61 2 9959 5570
Email: learning@housley.com.au

www.housley.com.au



Presented in conjunction with