

# Cisco Voice over IP (CVOICE)

**Cisco Exam: 642-436**  
**5 Day Course**  
**Locations: Mex, D.F.**  
**Date:**

## Who Needs to Attend

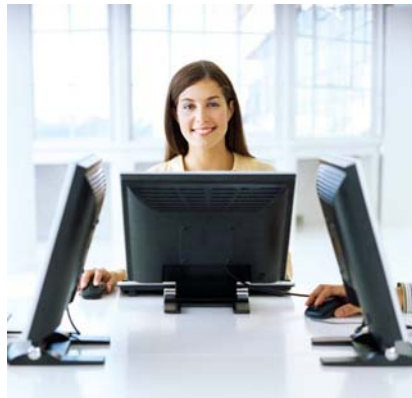
Students completing the CCVP certification track  
Network engineers,  
architects, and support  
staff who:

- Maintain and configure voice and data network devices
- Are considering various methodologies to implement Voice over IP (VoIP)
- Require a fundamental understanding of the issues and solutions related to implementation
- Require a fundamental understanding of packet telephony technologies that are common for both enterprise and service provider applications

## Certification Programs and Certificate Tracks

This course is part of the following programs or tracks:

[CCVP - Cisco Certified Voice Professional](#)  
[Cisco Rich Media Communications Specialist](#)  
[CCNA Voice](#)



In this course, you'll gain an understanding of converged voice and data networks and the challenges faced by the various network technologies. This course provides network administrators and network engineers with the knowledge and skills required to integrate gateways and gatekeepers into an enterprise VoIP network.

## Table of Contents

### 1. Voice over IP (VoIP)

- Introducing VoIP
- Introducing Voice Gateways
- Specifying Requirements for VoIP Calls
- Understanding Codecs, Codec Complexity, and DSP Functionality
- VoIP Signaling Protocols
- Comparing VoIP Signaling Protocols
- VoIP Service Considerations
- Media Transmission Protocols

### 2. Configuring Voice Ports

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

### 3. Implementing VoIP Gateways

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

### 4. Implementing Dial Plans on Voice Gateways

- Understanding Dial Plans
- Implementing Numbering plans
- Configuring Digit Manipulation
- Configuring Path Selection
- Implementing Calling Privileges on Cisco IOS Gateways
- ITSP Connectivity
- Understanding Special Requirements for External VoIP Connections

### 5. Implementing H.323 Gatekeepers

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

### 6. Connecting to an ITSP

- Understanding Special Requirements for External VoIP Connections
- Implementing CUBEs

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