

## Cisco Voice Over IP (CVOICE)

**Course Length:** 5 days

**Course Content:** Cisco Voice over IP (CVOICE) v6.0 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.

### Prerequisites:

- Working knowledge of fundamental terms and concepts of computer networking to include LANs, WANs, and IP switching and routing.
- Basic internetworking skills taught in Interconnecting Cisco Network Devices (ICND), or equivalent knowledge.
- Ability to configure and operate Cisco routers and switches and to enable VLANs and DHCP.
- Knowledge of traditional public switched telephone network (PSTN) operations and technologies.

**Course Objectives:** Upon completion of this course, the student should be able to:

- Describe VoIP, components of a VoIP network, VoIP protocols, special requirements for VoIP calls, and Codecs.
- Configure gateway interconnections to support VoIP and PSTN calls.
- Describe the basic signaling protocols used on voice gateways and configure a gateway to support calls using the various signaling protocols.
- Define a dial plan, describing the purpose of each dial plan component, and implement a dial plan on a voice gateway..
- Describe gatekeeper functions, protocols, and operation and implement an H.323 gatekeeper to provide dial plan resolution and call admission control.
- Implement a Cisco Unified Border Element gateway to connect to an Internet Telephony Service Provider

### Course Outline:

- Introducing Voice over IP
- Configuring Voice Ports
- Implementing VoIP Gateways
- Implementing Dial Plans on Voice Gateways
- Implementing H.323 Gatekeepers
- Connecting to an ITSP

