



ExperTech 2.0: VoIP and IP Telephony

PROGRAM OVERVIEW

The ExperTech 2.0 series is a library of CD-ROM or intranet-based products covering key communications topics. Seminar style presentations provide telecom professionals with easy access to the information they need. Topics are presented by Hill Associates instructors renowned for their technical expertise, industry experience, and outstanding presentation style.

When one thinks about convergence concepts, what often comes to mind is VoIP. This course provides you with an understanding of voice over Internet Protocol (VoIP) and Internet Protocol telephony (IPT). It defines VoIP/IPT, explains why voice over packet is feasible, and gives some issues surrounding VoIP. It continues with a discussion of the three major protocols used in VoIP: Session Initiation Protocol, H.323, and Media Gateway Control. The course concludes with a discussion of the network assessment process, VoIP deployment options, and differentiation of premises and hosted IPT.

VoIP and IP Telephony runs 2.6 hours and includes audio, interactive elements, review slides, section knowledge checks, and a final exam. The participant can expect to spend about twice this amount of time to complete the course.

This program has seven primary objectives:

- Describe voice over Internet Protocol (VoIP) and IP telephony (IPT)
- Discuss why voice over packet is feasible
- Explain the impact of VoIP on carriers and consumers
- Describe the functions of H.323, Session Initiation Protocol (SIP), and the Media Gateway Controller (MEGACO) protocol
- Discuss the VoIP network assessment process
- Discuss four models of VoIP deployment
- Differentiate between premises-based and host-based IPT

Specific topics can be developed, or packaged together to create a unique and customizable curriculum. All of our standard titles are available for preview at our store (www.hill.com/store).

About Hill Associates

At Hill Associates, we excel at creating custom talent development programs. Our experts help identify and assess your needs, and create training and educational programs that exactly meet those needs. Though we specialize in information technology, we've strengthened companies and organizations in a wide range of industries for over 25 years. Let us help you create a world-class talent development program that moves your business forward.

PROGRAM OUTLINE

Lesson 1: Introduction to Voice over IP

- What is VoIP?
- Differentiate between VoIP and IP telephony
- Why packetize voice
- The new voice "stack"
- Building an IPT network
- VoIP acceptability factors
- Key VoIP standards

Lesson 2: IP Telephony Using H.323

- IP telephony standards
- Gateways and gatekeepers
- H.323 operational components and concepts

Lesson 3: IP Telephony Using SIP

- The Session Initiation Protocol
- SIP server types
- SIP signaling and operational overview
- Real-Time Protocol

Lesson 4: MEGACO: Gateway to the PSTN

- Overview of MEGACO
- Gateway control operations
- UDP transport of MEGACO
- MEGACO call flow

Lesson 5: Planning for IPT

- Assessing the technology
- Data network baseline
- Security vulnerabilities
- Power requirements
- IPT migration strategies
- Deployment models
- On-premises vs. hosted IPT solutions