



ET 2.0: Telecommunications Technical Curriculum (TTC)

Program 3: Voice Knowledge

Course 3: PSTN Design and Services

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.

The *Telecommunications Technical Curriculum (TTC)* has a total of five programs, each of which consists of one or more courses. TTC is a modular, yet comprehensive program designed around the needs of those who want the details but cannot attend a more traditional classroom-based, leader-led program.

Program 3: Voice Knowledge is a four course series that deals with concepts and terminology related to the transmission of voice services. In this third course of the series, *PSTN Design and Services*, we explore issues related to the design and deployment of circuit-based and packet-based voice networks. You will learn about the differences between queuing and blocking networks, how the PSTN is engineered for quality of service, how Erlang tables are used, and how trunk groups and the law of large numbers applies. You will also examine quality issues in packet networks and explore a number of service aspects including Centrex and CLASS services.

Program 3, Course 3: PSTN Design and Services runs 65 minutes, and includes three lessons of 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 three primary objectives:

- Explore the design concepts and challenges of deploying voice networks, including the elements required for quality of service
- Identify and discuss the principles of traffic engineering
- Explain Centrex, CLASS services, and ISDN concepts

Specific topics can be developed, or packaged together to create 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: Traffic Engineering

- Define the term *traffic engineering*
- Discuss the differences between queuing and blocking networks
- Describe Erlang tables and the Law of Large Numbers and the strategies for determining call volumes

Lesson 2: Engineering in Action

- Describe where traffic engineering principles are needed and applied in the circuit-based PSTN
- Explore the elements required to provide quality of service (QoS) in a packet-based voice network

Lesson 3: Voice Services

- Identifies several voice-related services including Centrex, CLASS services, and ISDN