



## IP Multimedia Subsystems

### PROGRAM OVERVIEW

It is often said that what the Internet touches it consumes. Now that IP has moved into the wireless realm we can be sure that IP will be a major part of wireless strategies in the future. The first of these is the IP multimedia subsystem (IMS) network architecture, which has its roots in the wireless world but appears ready to enter the converged wired/wireless world. Moreover, IMS looks at the convergence of voice, data, and video in either a wired or wireless setting.

IMS has support from the Third Generation Partnership Project (3GPP) and its follow-on 3GPP2. From these perspectives, IMS provides an all packet-switched core network that creates an access-agnostic environment. The IMS architecture will be used to deliver a wide range of multimedia services to users who access the infrastructure via any device or network connection. Some have quipped that this is the “eBay model” for networks in that it “connects buyers with content suppliers” anytime, anywhere.

This course examines the history of IMS and the structure of the IMS architecture. In fact, the majority of class time is spent on the IMS architecture. Protocols, interfaces, and operational scenarios will also be described as they relate to IMS registration and sessions. Several applications will be discussed.

The program has five primary objectives.

- Discuss the basic philosophy behind the development of the IMS
- Describe the architectural requirements and functional entities of the IMS, including the protocols between the IMS functional entities
- Discuss some of the major concepts behind the operation of the IMS
- Explain the roles of presence, messaging, conferencing, and push-to-talk over cellular in the IMS
- Speculate on the future of the IMS and its required critical success factors

Hill Associates can customize this program to address your specific Sales Engineering talent development program goals. We will work with you to identify the specific technologies and solutions you wish to discuss, to understand your particular competitive market, and develop case studies that focus on unique challenges facing your customers.

#### About Hill Associates, Inc.

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: IMS Architecture

- An introduction to IMS
- IMS architectural concepts and requirements, including IP connectivity, access independence, quality of service, policy control, cost to deliver, internetworking
- IMS-related entities and functions (CSCF, HSS, SLF, MRFC, MRFP, application servers, and gateways)
- IMS reference points (G, M, C, D, S, U and service control reference)

#### Lesson 2: IMS Protocols

- Explore in detail the protocols used in support of IMS, including SIP, SDP, RTP, DNS, GPRS, TLS, MEGACO, COPS, IPSec, DHCPv6, XCAP, and CSCP

#### Lesson 3: IMS Services

- Explore in detail the types of services supported by IMS, including presence, messaging, conferencing, and Push-to-Talk over cellular