



# IP Applications & Billing

## Billing Platforms - Today and Tomorrow

This section introduces to the students IP, networks, and the billing environment. A discussion of IP and the impact IP is having on the carriers and on the billing systems will be held.

- PSTN
- Signaling Systems and IN Services
- IP Impact on Billing

## The Internet Building Blocks

Familiarize the student with how the internet works. IP terminology and concepts discussed form the basis for future discussions.

- Networks
- Client-Server Interaction
- Packet Switching
- IP Addresses and Domains
- Firewalls
- ISP and NSP

## IP and Data Networks

This section introduces the students to the OSI model as background for discussion of network architecture, network elements and data services.

- OSI Model
- Network Access
- Routers and Switches
- Circuits and Packets
- LAN and WAN
- X.25/Frame Relay/ATM
- IP Internetworking

## Voice Over IP

This section describes why VoIP is so popular, the components of a VoIP call and the challenges that remain for VoIP.

- Turning Voice into Packets
- Digital Signal Processors
- Gateways/Gatekeepers
- IP Telephony Protocols
- Quality of Service (QoS)
- Pricing and Billing for VoIP

## IP Applications & Services

This section explores the different applications that the IP networks have developed and the unlimited opportunities remaining for the industry.

- Internet Fax
- Mobile IP and Wireless Internet
- Unified Messaging
- Multimedia IP Applications, Video Conferencing
- E-Commerce
- Voice-Enabled Web Sites
- Telemarketing and Call Centers
- Virtual Private Networks (VPN)
- Applications Service Providers (ASP)
- Billing Implications

## IP Mediation

This section explores content and content collection. What is needed, where the data resides and for how long are a few questions to be answered when addressing your companies mediation needs. We will explore the challenges in collection, enrichment, and provisioning in the IP environment.

- Key Role of Mediation
- Data Collection
- Collection Points
- Data Enrichment
- Real-Time Mediation

## IP Rating and Billing

This section explains the billable elements required for billing, the complexities involved with measuring QoS, the role of the clearinghouses, taxation issues, and convergent billing.

- Traditional Billing
- ISP Billing
- IP Pricing Models
- QoS/SLA
- Rating Engine
- Real Time and Prepaid Service

## Wireless IP

This section will explore the merging of wireless and IP. A discussion will follow with the services available currently, how the services work, and how the industry is handling the billing of such services.

- Wireless Technologies Review
- Wireless Data Services

## Trends, Opportunities, and Predictions

The students will discuss the new technologies and equipment that are opening up new possibilities along with the new applications and services for new revenue streams.