[3 Days]

the Billing College℠

Billing – Customer Care – OSS
Fixed Line, Mobile, IP Services

Telecommunications & Billing Overview

Introduce the student to the critical role played by the Billing system in the Telecommunications industry. Review some factors that point to the tremendous growth in the mobile industry. Statistics show convincingly that subscription to mobile services is wildly exceeding all projections. As billing cannot operate "in a vacuum", we define the major business processes that are inter-dependent on billing. Define and explain many of the terms and acronyms used within the industry. Rounding out the section is a high level overview of a typical billing system.

- Criticality Of Billing
- The Fixed Line Network
- The Mobile Network
- The Billing System
- Billing Terminology
- Billing and the Enterprise
- The Telephony Invoice: What's in it?

The Marketing Interface

Familiarize the student with the different types of services on the market today, and ways in which they can be billed. This includes a discussion of deregulation in the fixed line sector, pricing models for both Fixed Line and Mobile, "free minute" contracts, mobile data services, and the increasingly popular Value Added Services (VAS). Special attention is given to the growth potential of mobile data services.

- Market Segmentation
- Services vs. Products
- Promotions
- Modeling The Product Structure
- PSTN Services
- Mobile & VAS Services
- Product Types & Rules
- Charging for Services
- Marketing Interface To Billing

The Customer Care Interface

This module examines the major functions performed by Customer Care. Special attention is paid to the systems requirements supported by these functions, and to the human factors necessary to satisfy the customer's needs. Some of the topics covered: Call Center requirements, Supporting Customer Hierarchies, the Service Order process, Interface to provisioning, and more.

- Modeling the customer hierarchy
- Customer Care Interfaces
- Customer Care Processes
- Customer Care Interface to Billing

The Network Interface & Roaming

This section introduces the students to the various networks operating currently around the world. The anatomy of a call/transaction is described in detail from event initiation (mobile handset or fixed line telephone) to termination, through the switches/MSCs, tandems, IXC PoPs, and backbones. Included in this discussion is the role of the Signaling System in supporting the underlying network, and in enabling Intelligent Network services.

The student is also introduced to the issues of roaming between networks. A detailed explanation is given of the complexities in processing roaming records received from clearing houses. We will also review the CIBER and TAP standards used to process the roaming records.

- Network Components – Fixed Line, Mobile, Signaling
- Subscriber Identification

- The Air Interface
- Network Interface to Billing
- Number Portability
- Roaming
  - Roaming Agreements
  - Network Setup
  - Roaming – A Customer's View
  - Billing for Roaming

The Rating Engine

Comprehensive study of the role of the Rating Engine in processing fixed line and mobile DRs (Detail Records). This module describes in detail the activities performed by the rating engine from the time the event is generated by the network, through mediation devices, through each of the rating steps, to inclusion into the bill pool in preparation for the billing run.

- Mediation
- Reformatting The Input
- The Guiding Process
- The Rating Engine
- Exception Processing

Operations Support Systems (OSS)

In this module, we define OSS and review its role within the enterprise. An important factor in the success of any Operational Support System is its ability to interface effectively with the Customer Care and Billing processes; this makes for a heavy dependence, requiring tight interfaces with each of them. Here we discuss each of the components that make up an OSS platform:

- Workflow Management
- Order Management
- Inventory Management
- Provisioning and Activation
- Network Management

3G, IN, and Data Services

This section will explore the various types of data services and the methods employed to send data over the mobile networks. Additional topics: IP-based applications, 2G, 2.5G, and 3G standards and services, and the impacts on billing.

- Intelligent Network (In) Services
- Data Services
- Packet Switched Services
- IP-Based Services
- 2G, 2.5G, And 3G Services (SMS, GPRS, W@P, EDGE)
- Billing For Data Services

Mobile Prepaid

Flexibility without all the incumbency of contracts/rate plans/etc is accomplished through the purchase of prepaid service. The mobile industry has discovered that this market can be very lucrative. We will examine the growth of this market and contrast it with the growth in postpaid; we will also discuss its characteristics, benefits, and current implementation methods.

- Comparing Pre and Post-Paid
- Characteristics of Prepaid
- Target Markets
- Implementation Methods

Post-Paid Invoicing

A comprehensive study of all functions related to charges and credits calculations, quality control, and invoice production. Current issues such as real time "hot" billing and convergence are discussed. Billing methods for product/discounts are discussed in great detail, as well as: processing tiered/tapered discounting, taxation for multiple jurisdictions, adjustments, payments, and all data which finds

its way into the invoice. Bill presentment on different media including Internet is addressed.

- Bill Activities
  - Customer Selection and Product Setup
  - Usage Aggregation
  - Discount Assessment
  - Fixed Charges Calculation – RC & NRC
  - Adjustments Aggregation
  - Taxation
  - Payments and Financial Journalization
- Invoice Review
- Billing Challenges

The Financial Interface and Revenue Assurance Concepts

The student is introduced to the internal and external support functions and interfaces to the billing platform. The inputs and outputs of these functions, especially those relating to Finance, have a great impact on the entire enterprise, which depend on billing data to be successful. The student is also exposed to Revenue Assurance concepts; terms are defined, and areas of (and reason for) revenue leakage throughout the enterprise are identified.

- Billing: A Specialized A/R System
- Open Invoice Vs. Balance Forward Invoicing
- Payment Methods & Processing
- Other Cash Transactions
- Financial Management Reporting
- General Ledger Interface
- Interfacing With The Outside World
- Revenue Assurance Concepts

Criteria for Selecting a B&CC Solution

During this round table forum, the students have an opportunity to explore the criteria that Service Providers use to develop an RFP (Request For Proposal) for a B&CC solution. We also explore some of the tools available for automating the RFP development process.