



**TELECOMMUNICATIONS BILLING
MASTERCLASS**

May 17th – 21st, 2009

Hosted @

Regus Training Centre

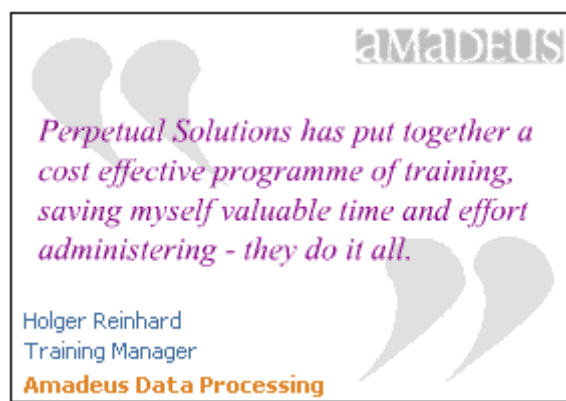
1st Floor, Trust Tower, Diplomatic Area

Manama, Bahrain

Perpetual Solutions are a global provider of onsite training solutions across a wide range of technical and non-technical topics. We provide both onsite training and scheduled training courses across UK, EMEA, US and Asia/Pac. Perpetual Solutions has proven experience in delivering learning solutions to Telecoms organisations across multiple territories, countries and continents.

In conjunction with [2Connect](#), a licensed operator in the Kingdom of Bahrain, Perpetual Solutions are pleased to deliver a five-day Telecommunications Billing Masterclass course, to be held in Manama, Bahrain from May 17th to 21st, 2009.

The Perpetual Solutions philosophy is that learning enables knowledge, knowledge enables progression, and progression enables companies and individuals to be more effective and add measurable business value.



This five-day Billing Masterclass is a select grouping of our most popular Billing courses. This will provide both new and experienced Billing Professionals with in-depth knowledge of Billing processes and architectures ensuring Operators have skilled professionals working in this critical area of the Telecoms industry.

Telecommunications Billing This 2-day course, encompasses the entire billing process, end-to-end, providing a comprehensive overview and basis for further training. A soundly implemented billing system is critical to the competitive success of the modern carrier.

Interconnect Billing This 1-day course looks at Interconnect billing, the charges to and from other carriers. This is increasingly becoming the major part of the revenue of many non-incumbent operators in EMEA and elsewhere. This course looks at this area and exposes some problems and potential pitfalls.

IP Billing This 1-day training course looks at the process of billing for IP and Applications and examines how this goal can be achieved. The course examines both fixed and mobile IP Billing as well as a major IP application (from the carriers' viewpoint) – Voice over IP.

Billing for GSM, GPRS and 3.x Mobile Systems

A 1-day training course covering billing systems and architectures for GSM, GPRS and 3G UMTS. This course looks at the whole area of GSM billing, including basic GSM billing, billing whilst roaming and carrier interconnect. This is extended to GPRS and ends by introducing the charging architectures for 3.x mobile systems and beyond.

Course Details

Day One – Telecommunications Billing	4
Introduction	4
Boundaries and Interfaces	4
The Service Order Process	4
Mediation and Event Processing	4
Rating and Pricing	4
Day Two – Telecommunications Billing (cont'd)	5
Billing and Collection – Invoicing the Customer	5
Interconnect Introduction	5
Fraud Management	5
Calling Cards.....	5
Premium Rate Dialing	5
Day Three – Interconnect Accounting and Revenue Assurance	5
Introduction	5
The Evolution of Interconnect	5
The Fundamental Interconnect Components.....	6
Implementing an Interconnect Billing Solution	6
The Future of Interconnect.....	6
Day Four – IP Billing	7
The IP Billing Chain.....	7
IP Architecture	7
Voice over IP	7
IP Billing Components	7
Mobile IP Billing	7
Day Five – Billing for Mobile GSM, GPRS & 3.x Mobile Systems	8
GSM Operations.....	8
Basic GSM Billing.....	8
Transfer Accounting Procedure (TAP)	8
Prepay Billing	8
GPRS Billing.....	8
3.x Mobile Charging Architecture	8
Trainers' Profile	9
Course Booking Form	10
Recommended Hotels and Course Location Map	11

Day One – Telecommunication Billing

Introduction

- The Principle of Billing
- CDRs
- What about data?
- Billing can be for:
 - Volume Billing
 - Always on
 - IP Billing
 - Mediation
 - Rating
- Interconnect/Interadministration Billing
- What makes a good Billing System?

Boundaries and Interfaces

- Defining the major areas of Billing Support Systems (BSS)
- The end-to-end generic billing process flow
- Interfacing and co-dependent critical systems - marketing, finance, OSS, network management
- Making a call and the key billing system information at the service provider, customer and account levels
- How the levels are linked to support billing processes

The Service Order Process

- Acquiring customers and gathering their information
- Credit checking options
- Data structures
- Information security issues

Mediation and Event Processing

- What is Mediation?
- Carrier Challenges
- Mediation Requirements and Features
- Collection, Filtering and Consolidation
- Presentation and Distribution
- Return on Investment

Rating and Pricing

- A Huge range of Options
- Least Cost Routing
- Tariffing Tables
- CDR Formats
 - - Options
 - - Some CDR Record Formats
- Different Rates for Different Customers
- Guiding

Day Two – Telecommunication Billing

Billing and Collection - Invoicing the customer

- The Bill and the Engines
- Convergent Billing
- Convergence Models

Interconnect Introduction

- What is interconnect?
- Why interconnect matters

Fraud Management

- How Big a Problem is this?
- Criminals are Lazy
- Types of Fraud and Fixes
- Don't Spend too Much
- Checklist

Calling Cards

- Calling Cards and Accounts
- Cards and Batches
- Life Cycles of Batches and Cards
- Charging for Calling Cards
- ASRs, Redial Causes and Least Cost Routing

Premium Rate Dialing

- Cheap International Calls
- Ranges of Access Numbers
- Example Operators, websites and charges

Day Three – Interconnect Accounting & Revenue Assurance

Introduction

- What is interconnect?
- Why interconnect matters
- Declaration
- The interconnect agreement
- Settlement variations
- The interconnect business process
- Concepts and Terminology
- Interconnect call scenarios

The Evolution of Interconnect

- Accounting Rate
- Sender keeps all
- Element Based Conveyance (EBC)
- Number Translation Services
- Interconnect for ISPs
 - - Web Hosting
 - - Revenue share models
 - - Interconnect and Number Portability
 - - Call forwarding
 - - Centralised database
- How retail differs from interconnect

The fundamental Interconnect components

- Scope
- Management of reference data
- CDR mapping, completion, repair and enhancement
- Pricing
 - - The rating process
 - - Interconnect rating styles
 - - CDR and bulk rating
 - - Distance and destination based
 - - Volume and Commitment levels
 - - Revenue sharing
 - - Content
- Post pricing
 - - Adjustments
 - - Re-pricing
 - - Discounting
 - - Invoicing and Taxation
- Summaries and Reports
- Reconciliation processes and standards
- Least Cost Routing

Implementing an Interconnect Billing Solution

- Roles and resources
- Outline implementation plan
- Scalability and resilience

The Future of interconnect

- Competitive pressures
- Voice and data trends
- The impact of technology on interconnect
- 3G services
- IP interconnect
 - - IP event records
 - - QoS issues
- Billing for IP services
- The IP billing value chain
- The total business solution for interconnect
 - - Interconnect churn
 - - Fraud and interconnect
 - - "Operator Care"
 - - Interconnect for the Board
- Extending the boundaries of interconnect

Day Four – IP Billing

The IP Billing Chain

- The Food Chain
- Volume Billing and its Limitations

IP Architecture

- Data Traffic
- Connection Types
- Layered Systems
- IP Features
- TCP
- IP Routing
- The Internet

Voice over IP

- Why Voice over IP?
- Patterns of Use
- Voice and Data are Different
- All the Protocols Needed
- Billing Implications

IP Billing Components

- Content or just Bytes
- Example from ADSL
- Problems and Mediation
- Viewpoints
- Online Trading Example
- What could we charge for?
- IP Security
- IPDR
- TOM
- JAIN Initiative
- Parlay

Mobile IP Billing

- GSM & GPRS
- The Basis of 3G
- Tariffs
- Roaming
- Location-Based Services
- Prepay
- Charging Principles
- Quality
- CDRs
- Conclusions to Ponder

Day Five – Billing for GSM, GPRS & 3.x Mobile Systems

GSM Operations

- Mobile Systems
- Basic Roaming Operation
- Billing Implications

Basic GSM billing

- Billing Processes
- Mediation

Transfer Accounting Procedure (TAP)

- For voice
- For data – TAP3
- Interadministration Accounting

Prepay Billing

- Different Models
- CAMEL

GPRS billing

- What is GPRS?
- GPRS Billing Models
- Charging Principles
- The IP Billing Chain
- Location-Based Services
- Prepay

3.x Mobile Charging Architecture

- Charging mechanisms
- Offline and Online charging
- Overall Architecture
- Charging Functions
- CDR



Trainers' Profile

A qualified electronics engineer with many years experience in the telecoms and IT industries, he has demonstrable skills in directing and managing projects in countries around the world and has written a number of training manuals and publications and is an accomplished conference presenter and speaker.

- 30 year experience from within the Telecommunications and IT Industries.
- Specialist in Billing, Strategic Network Planning and Administrative systems.
- Extensive International Business Experience.
- Strong Understanding of Electronic Trading and Internet Based Transactions.

Consulting and Training 1997 – present day – various consultancy and training assignments in telecommunications particularly billing specialization.

Previous customers: AT&T, BT, Deutsche Telecom, Ericsson, European Commission, France Telecom, IBM, Microsoft, Motorola, NTT, SITA, SWIFT, Telecom Australia.

Chorleywood Consulting Ltd 1984 – 1997. Chorleywood Consulting Ltd, was focused on Customer Care and Billing in the global telecommunications industry. Chorleywood Consulting grew very rapidly, producing a library of publications around its core subject areas and conducting face to face consultancy with many telecommunications operators from around the world. The company was perceived as a global authority on the CCB subject having been established in the UK market where early deregulation had been adopted and considerable practical experience amassed. Chorleywood Consulting consulted to major operators as well as new start-up companies during a period of exciting growth and development in telecommunications worldwide in countries as diverse as Kazakhstan, Brazil and Japan – Company was sold to Informa in 1997.

Prior to 1984 – Held positions within the Telecommunications Industry with British Telecom, Tektronix, and Cablesare.



COURSE BOOKING FORM

Complete the Course Booking Form in BLOCK CAPITALS and fax back to Sara Pettigrew on +973 1750 0109 or scan and email this form to info@2connectbahrain.com

Course Title: Telecommunications Billing Masterclass

Date: May 17th to 21st, 2009

Location: Regus Training Centre, 1st Floor Trust Tower, Diplomatic Area, Manama, Bahrain

Cost: BD1195 / SAR11,950 / QR11,950 / KD950 / AED11,950 / OR1195 (Delete as appropriate)

Delegate Name: _____

Job Title: _____

Email Address: _____

Telephone Number: _____

Company Name: _____

Address: _____

I certify I am authorised by the company named above to book course places for the delegate named above.

Signed:

Date:

By signing this form you agree to 2Connect Terms & Conditions for Course Bookings.

Cancellation Terms & Conditions:

Cancellation within 15 - 30 Days of Course Commencement – 50% Refundable

Cancellation within 0 – 15 Days of Course Commencement – No refund provided

Delegate Transfer – You may change the name of the delegate at any time for no extra fee.

List of Recommended Hotels

Golden Tulip Hotel (4*) – Contact Reservations on +973 1753 5000

<http://www.goldentulipbahrain.com> - 200yds from Training Centre

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Sheraton Hotel (5*) – Contact Reservations on +973 1753 3533

<http://www.starwoodhotels.com> – 250yds from Training Centre

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City Centre Hotel (3*) – Contact Reservations on +973 1722 9979

<http://www.mashtanhotels.com/about.citycenter.html> - Short taxi ride from Training Centre

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