



3G & UMTS: A non-technical overview

1 – INTRODUCTION TO THIS COURSE-SERIES

Ask 10 people what 3G and UMTS means and you'll most likely get 10 different definitions. Even the ITU, almost a decade ago, could not clearly define what 3G meant. It only created a framework for a sort of "turbo"-mobile network that would bring about a spate of advanced communication services. The task is no easier today, after many years of turbulence in the telecommunications industry.

3G does not exist in a vacuum as its successful predecessor, GSM, did. As the border between wireless and fixed networks blurs, and the distinction between telephony and data-communications disappears, 3G is best observed within the wider context of the modern telecommunications industry. The simplistic value-chain of incumbent telecom vendors and network-operators are giving way to very complex business-models which include non-traditional players (like the entertainment and internet giants), coupled with an ever-increasing number of competing technologies that are changing this industry-sector as we've known it.

This course-series is intended to explain these current trends to all those interested in a non-technical, high-level view.

2 - OBJECTIVES

- To understand the 3G/UMTS technologies and business in a simple, enlightening and entertaining way.

3 - TARGET GROUP AND ENTRY REQUIREMENTS

Tailor-made for non-technical staff as well as those who want to see the big picture of the latest trends and strategies in the telecom industry as of 2006 in a non-heady, relaxed manner.

4 - CONTENT

The course is broken up into the following 3 modules. The intent is to help you better understand what drives, what hinders and even what competes with UMTS.

- Telephony Basics, Circuit-switching & Global System for Mobile Communications**
You will start by learning how the telephony network works. You'll see how circuit-switches are built, what signalling is, how voice is digitized and how signals are transported. You'll then see how a wireless network works and how it fits into the larger global telephony network. Concepts such as Cells, Location Areas, Roaming and Handover will be explained in a simple and understandable way that draws from your own experience with mobile phones. This module will also show you how a 2nd generation GSM network is built. This module closes with a number of market data on GSM that best illustrate the need for development. You will see what is squeezing the industry and why it was imperative to develop early strategies for the successor 3G technologies.
- The Internet, Packet-switching & General Packet Radio Service**
This module will show you how the Internet is built and how GPRS was developed as an enhancement to GSM to provide access to data services. Why didn't the revolution of the mobile-Internet happen back then as it was being predicted? And why is everybody still talking about IP and packet-switching?
- 3G & Universal Mobile Telecommunications System**
The previous 2 modules are meant to lead into our main subject: UMTS. You will learn all you need to know about broadband, what is meant by all-IP, what is UTRAN, Softswitching, and IMS. How does WLAN, EDGE and HSPA fit in the picture? Plus, you will get a lot of insider information on other trends in the telecom industry -like WiMAX and Fixed Mobile Convergence- that are radically changing the "mobile market" as we speak.

5 - PRESENTATION

This course is designed to accommodate a lot of discussion where all your questions will be answered and the most important information will be given in an easy to understand way. A Powerpoint presentation will accompany us to help illustrate all the topics. All slides will be provided in handouts.

6 - DURATION

1 Day

7 – NUMBER OF PARTICIPANTS

No restrictions.