

Total GSM

A 2 day training course



Description

GSM is in widespread use today. This course gives a comprehensive overview of GSM.



Key outcomes

By the end of the course delegates will be able to:

- ✓ Explain what GSM is.
- ✓ Describe the architecture of the GSM network.
- ✓ Describe the GSM protocol stack.



Training approach

This structured course uses Instructor Led Training to provide the best possible learning experience. Small class sizes ensure students benefit from our engaging and interactive style of teaching with delegates encouraged to ask questions throughout the course. Quizzes follow each major section allowing checking of learning.



Details

Who will benefit?

Anyone who needs to know more about GSM.

Prerequisites

Telecommunications Introduction

Duration: 2 days

Overall rating:



Generic training



Generic training compliments product specific courses covering the complete picture of all relevant devices including the protocols "on the wire".

"Friendly environment with expert teaching that teaches the why before the how."

G.C. Fasthosts

Small class sizes



We limit our maximum class size to 8 delegates; often we have less than this. This ensures optimal interactivity between delegates and instructor.

"Excellent course. The small class size was a great benefit..."

M.B. IBM

Hands On training



The majority of our courses use hands on sessions to reinforce the theory.

"Not many courses have practice added to it. Normally just the theoretical stuff is covered."

J.W. Vodafone

Our courseware



We write our own courses; courseware does not just consist of slides and our slides are diagrams not bullet point text.

"Comprehensive materials that made the course easy to follow and will be used as a reference point."

V.B. Rockwell Collins

Customise your course



Please contact us if you would like a course to be customised to meet your specific requirements. Have the course your way.

"I was very impressed by the combination of practical and theory. Very informative. Friendly approachable environment, lots of hands on."

S.R. Qinetiq

Total GSM

Course content

Introduction

History of GSM, analogue networks, digital networks, PCS1900.

GSM services

Telephony, digital encoding, data rates, Group 3 fax, SMS, Supplementary services.

GSM architecture

Mobile station
Mobile Equipment (ME), Subscriber Identity Module (SIM).

Base Station Subsystem

Base Transceiver Station (BTS), Base Station Controller (BSC).

Network Subsystem

Mobile Services Switching Centre (MSC), Home Location Register (HLR), Visitor Location Register (VLR), Equipment Identity Register (EIR), Visitor Location register (VLR), Authentication Centre (AuC)

Radio Link Aspects

Bands, FDMA, TDMA, Traffic channels, Control channels, Speech coding, Channel coding and modulation, Multipath equalisation, Frequency hopping.

GSM signalling

SS7 overview, GSM SS7 nodes, Base Station Subsystem Application Part (BSSAP), Transaction Capabilities Application Part (TCAP), Mobile Application Part (MAP).

Interfaces

Um, Abis and A interfaces.

Mobility and call processing in GSM

Attach & location update process, mobile originate, mobile termination, handovers.

GSM services

Tele services, Bearer services, supplementary services, SMS, security.

GSM futures

GPRS, UMTS.

What our customers say

"Absolutely brilliant, very knowledgeable and helpful trainer would recommend to teach anyone. Kept me interested 100% of the time which is very impressive as this does not happen often, if at all!"

O. B. Network Rail

"The best technical course I've been on!."

L. W. Fujitsu Telecoms Europe

"Very well thought out and structured course. Would recommend 100%. Lots of equipment, good quality."

A.R. Unipart

"Course content is interesting. Relevant to current systems and presented well."

S.S-T. Arqiva

Step back

Telecommunications
Introduction

Total GSM

Step forward

4G demystified

3G demystified