

# CAMEL IN in Mobile Networks Environment

#### Who Should Attend?

The course is intended for network engineers and network planning staff who need deep technical knowledge on functionality of CAMEL and IN services. It is strongly recommended for engineers testing, implementing and troubleshooting pre-paid and VPN roaming.

#### **Course Content**

- 1. Inteligent Network. Concept and Architecture.
- 2. CAMEL phase 1: GSM network nodes, call forwarding, IN nodes SSF/SSP, SCF/SCP, SDP; protocol overview, BCSM principles, cross PLMN boundary protocols.
- 3. CAMEL phase 2: full roaming, pre-paid charging, user interaction, SSIN, USSD, supported CAP operations, cross PLMN boundary protocols.
- 4. CAMEL Phase 3: new IN features, CAMEL inter-working with GPRS, MO SMS, mobility management and location services.
- 5. CAMEL Phase 4: Plans for the future...
- 6. Detailed description of CAP operations, parameters in each CAMEL phase.
- 7. Procedure examples.

#### **Course Objectives**

CAMEL Technology is an intermediate technical course covering all aspects of CAMEL architecture and functionality i.e. protocols, messages, signaling procedures, basic call state models, subscription information, inter-working between GSM/CAMEL entities, CAMEL based services and international roaming. It presents different phases of CAMEL, with the main focus on CAMEL Phase 1 and 2.

## **Pre-requisites**

The participants should have attended GSM Technology course or should have the equivalent knowledge.

### **Training Structure**

Two days training divided into logical sessions.

## Methodology

Lectures and theoretical exercises. Real CAMEL and MAP traces analyses.