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Signalling in GPRS/EGPRS

"Signalling in GPRS/EGPRS" course focuses on signalling between GPRS nodes. During the course all protocols and signalling procedures on all interfaces within Base Station System and Core Network are presented in details. The organisations of channels of air interface and cell parameters are also widely covered in the course.

Target audience

The course is intended for experienced network engineers and network tuning staff and anyone with network experience, who needs deep technical knowledge on functionality of GPRS.

Training contents

- **Introduction**
  (network architecture - components and interfaces, basic signalling procedures, GPRS mobility management),
- **Um interface – channels**
  (GSM channels, PDCH, GPRS logical channels, mapping of logical channels, TA control procedures, logical channels priorities),
- **Um interface - user plane**
  (protocols: PDP, SNDCP, LLC, RLC/MAC, GSM RF),
- **Um interface - control plane**
  (GMM and SM procedures, cell update),
- **Um interface - MS activities**
  (cell reselection, MS power control, measurement reporting, paging and DRX),
- **Um interface - System Information**
  (Packet System Information and System Information type 13),
- **Gb interface**
  (Gb over Frame Relay, Gb over IP, Network Service, BSSGP, flow control),
- **Gn and Gp interfaces**
  (GTP header, GTP messages, PDP context activation, tunnelling, inter SGSN routeing update, international roaming),
- **SS7 interfaces**
  (MAP, Gs interface and BSSAP+),
- **Quality of Service**
  (service attributes, packet flow management),
- **GPRS and EGPRS – comparison**
  (EDGE technical description, standard and protocol improvements),
- **Dual Transfer Mode – DTM**
- **SGSNs in Pool**
  (Network Resource Identifier, node selection, load redistribution, GMM procedures, combined MM/GMM procedures).

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Prerequisites

The participants should have attended **"**GPRS/EGPRS Technology**"** course or should have the equivalent knowledge.

"Signalling in GSM BSS**"** or equivalent knowledge is useful but not compulsory. Practical experience in GPRS would be recommended.

Training method

Lectures and theoretical exercises.

Duration

4 days

Level

Advanced