

GPRS & EGPRS Made Simple

Web Based Training Duration:

- app. 2 hours

Web Based Training Description:

- This Web Based Training provides a fast track to the essential aspects of both, GPRS and EGPRS.
- The Web Based Training starts with a description of the principles of packet-switched operation compared to circuit-switched operation. We consider this part very important especially for beginners.
- The next part is dedicated to the description of the new network architecture with GPRS, pointing out the tasks and functions of PCU, SGSN, GGSN and BG.
- This chapter concludes with the provision of the presentation of the performance figures of GPRS and EGPRS in terms of bandwidth and latency.
- Focus of the Web Based Training is on the following chapter that discusses the air interface related aspects of GPRS and EGPRS. This relates particularly to multislot operation and the modulation and coding schemes CS-1 – CS-4 and MCS-1 – MCS-9 that are used in GPRS and EGPRS.
- The final chapter is dedicated to operational aspects of GPRS and EGPRS. This part explains how users get their IP-addresses from the network and how data is actually transmitted over the air interface in uplink and downlink direction.

Some of your questions that will be answered during this Web Based Training:

- What is specific to GPRS compared to plain GSM?
- How does multislot operation work in GPRS and EGPRS?
- Which enhancements like 8-PSK modulation does EGPRS provide compared to regular GPRS?
- What are the performance figures of GPRS and EGPRS?
- How is packet-switched GPRS-operation coordinated with circuit-switched GSM-operation that uses the same resources?
- How does a user obtain his/her IP-address and what do I need to configure on my laptop to achieve this?

Table of Content:

Part 1: Overview of GPRS and EGPRS

- **Packet-switched vs circuit-switched**
 - **Network Architecture, Protocol Stack and Mobile Station Types**
 - **Performance Figures of GPRS and EGPRS**
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Part 2: The Air-Interface

- **Multislot Operation and Mobile Station Classes**
 - **Radio Blocks, 52-Multiframe and Packet Data Channels**
 - **Adaptive Modulation and Coding: CS-1 – CS-4 and MCS-1 – MCS-9**
 - **Differences between GPRS and EGPRS / Enhancements through EDGE**
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Part 3: Operational Details

- **Obtaining an IP-address: Attachment and PDP-Context Activation**
- **Resource Allocation & Release in Uplink Direction**
- **Resource Allocation & Release in Downlink Direction**