

EPC Evolved Packet Core

The evolution of 3G mobile networks is in full swing. Standardization and hardware development processes have been forced.

The main drivers are – besides other aspects – increased data rates with short latency for all mobile end users and end-to-end IP based services.

This training course will focus on the architecture and on signalling message flows of the evolved packet core. Furthermore system specialists will get an overview about the major improvements on the radio interface, interworking between radio and core network and a detailed end-to-end view of the solution. Another focus is on QoS which will play an important role in EPS architecture.

Target Group / Requirements

Technical staff of mobile operators working in the core area (planning, configuration and trace management team), who want to improve their knowledge to get a detailed understanding of SAE architecture and signalling message flows.

Course Content

EPS Overview

- All IP Networks
- PS based architecture in 2G/3G
- Evolution of 3gpp Standards

EPC Network Architecture and Protocols

- EPS Components (eNB, MME, S-GW, PDN-GW, PCRF, HSS)
- EPS Interfaces and Protocol Structure (all Interfaces of SAE, e.g. S1, X2, S11, S10, S6a)
- Architecture models (Roaming, Non-roaming)

EPC Procedures

- Identifiers and Numbers
- EPS Mobility Management (EMM) states
- Attach, Detach, Tracking Area Update
- Dedicated Bearer Activation/Deactivation

Handover Scenarios

- Intra E-UTRAN handover (S1 based, X2 based)
- Inter-RAT handover

QoS Aspects

- General IP QoS concept
- QoS concept of SAE

CS Service Integration

Course Duration:

3 days

Course Number:

NW1247

Requirements:

Good understanding of GSM/UMTS networks

- CS Service Integration Overview
- IP Multimedia Subsystem (IMS)
- Voice over LTE Generic Access (VoLGA)
- CS fallback to 2G/3G
- CS Services over EPS

Certification

- Certificates are given to all participants at the end of the course about the successful completion.

Course Registration:

Please contact us via

- phone: +49 89 1894354-405
- email: training@tfk-technologies.de or
- via our website <https://skilleap.com/courses>

You will receive a confirmation of your registration. We can also advise you concerning the best combination of course contents.

For clients with special requirements the optimal training concept can be customized. Modules from our training portfolio can be combined to meet your company-specific needs.