TELECOMMUNICATIONS & 5G · 4G & 5G NETWORKS

Mobile Core Networks: 2G to 4G and IMS

الشبكات الأساسية الخلوية: من 2G إلى 4G وIMS

5 days | Intermediate | In person · Live online | Arabic & English

Understand the core network that connects every call, message and data session. You will follow the circuit-switched core of 2G and 3G, signalling and SS7, the packet core and PDP contexts, the 4G evolved packet core, and IMS with VoLTE, using real call and session flows.

WHO IT'S FOR

Core network, operations and support engineers, and radio engineers who want to understand the full network.

BEFORE YOU START

Telecommunications Fundamentals or equivalent knowledge

WHAT YOU'LL LEARN

- Describe circuit-switched and packet-switched core architectures.
- Explain subscriber identities, mobility and signalling.
- Follow call, SMS and data session flows.
- Describe the EPC and its interfaces.
- Explain IMS, SIP and VoLTE call flows.

Training a team?
We run this course privately for organizations, on your dates, at your site or ours, and adapt the examples to your network and equipment.

COURSE OUTLINE

5 modules, 5 days

MODULE 01

Circuit-switched core

- MSC, HLR, VLR and other nodes
- Subscriber identities
- Call flows and SMS

MODULE 02

Signalling

- SS7 and its protocol stack
- Signalling in mobile networks

MODULE 03

Packet core for 2G and 3G

- SGSN and GGSN
- Attach and PDP contexts

MODULE 04

4G evolved packet core

- MME, SGW, PGW and HSS
- Bearers and QoS
- Mobility procedures

MODULE 05

IMS and VoLTE

- IMS architecture
- SIP basics
- VoLTE registration and call flow

ALSO IN 4G & 5G NETWORKS

4G LTE Fundamentals, **5G Fundamentals**, **End-to-End Mobile Networks: from the Handset to the Core**, **5G Core & Network Architecture**, **Wireless Engineering: 2G to 5G, End to End**

Enrol or ask a question

In person in Damascus · Live online · Private training for teams. Tell us your goals and we will send the dates, the fees and the right level for you.

+963 991 099 555

info@alalamia-sy.com

alalamia-sy.com