Training and Workshop

LTE and 5G Awareness

The world of telecommunication is constantly in motion. New technologies become available for implementations that spark new possibilities for services and applications. As a result, businesses and markets are searching ways to adapt to these developments. Getting to know the recent and future developments in telecommunication is essential. Rabión Consultancy offers a range of telecommunication training for network operators, service providers and telecom regulatory authorities.

Our approach to training

The training programs that we provide cover business as well as technical subjects. The trainers for the training courses that we provide are experts in their fields. The trainers are actively involved in the telecommunications industry and are up to speed with new business developments and new technologies. Their knowledge is far more than just textbook knowledge; they gained hands-on expertise in carrying out projects and assignments for customers. The trainers will discuss cases in the training and will explore the theory of telecommunications using examples from daily practice. Depending on the objectives of our clients we offer a broad range of subjects in the training program. Trainings can be tailor-made to meet the specific needs and requirements of our clients. Most of our training program are delivered in-house of clients.

LTE and 5G Awareness

Objective
The objective of the LTE and 5G awareness training is to give insight in the developments in Fourth (4G) and Fifth (5G) Generation Networks. The key radio and core network technologies will be presented, as well as the difference between legacy GSM and UMTS networks and LTE and 5G networks.

TRAINING EXECUTION
De training is executed as class instruction. The trainers use PowerPoint presentation.

PROGRAMME LTE and 5G Awareness
The programme for the LTE awareness training is as follows:

Introduction and overview of LTE and 5G
- The evolution in Mobile Communication
- What is 4G, what is LTE, LTE-Advanced
- What is 5G
- Overview architecture
- Overview services
- Overview developments and improvements
- Overview Use Cases in 5G

LTE and 5G technology in the radio network:

- The architecture of the radio network
- Improvements compared to GSM/UMTS/HSPA
- New and improved technology in LTE and (Access, modulation). OFDMA and QAM explained
- FDD and TDD mode
- Spectrum, Use of Channels, Capacity management.
- mmW spectrum
- Beamforming and MIMO

LTE and 5G technology in the Core network
- The architecture of the core network in 4G and 5G
- Improvements compared to GSM/UMTS/HSPA
- The network elements in LTE, Enhanced Packet Core
- Diameter as the signalling protocol
- SAE, Service Architecture Environment
- The integration of VoIP
- IP Multimedia Subsystem (IMS)
- Network Slicing, Software Defined Networks

The services in LTE and 5G
- Network services data and voice
- Data speed for LTE and 5G (uplink, downlink)
- M2M/IOT scenarios
- Sectors for deployment: automotive, health, utilities

The Impact of LTE and 5G at business processes
- International roaming
- Interconnection
- Billing and Provisioning
- Numbering
- Security in the network

Implementation: the scenarios
- LTE for data-only, or data and voice?
- OTT providers, VOIP/VOLTE/IMS integration
- Will GSM and UMTS be phased out soon?

Status LTE worldwide
- Where is LTE available, network coverage
- Terminal Developments
- Spectrum Developments

The business Case 5G
- Market for 5G
- 5G drivers
- 5G cost components
- Threats and Risk for 5G roll out

The time schedule for the training:

DAY 1

Time	duration	Subject
9.00-9.15	15 min	Introduction
9.15-10.30	75 min	Introduction and overview of LTE and 5G
10.30-10.45	15 min	Break
10.45-12.30	105 min	LTE and 5G technology in het radio network
12.30-13.30	60 min	Lunch break
13.30-15.15	105 min	LTE and 5G technology in het Core network
15.15-15.30	15 min	Break
15.30-16.30	60 min	The services in LTE and 5G
16.30-16.45	15 min	Summary and Wrap up

DAY 2

Time	duration	Subject
9.00-10.30	90 min	The Impact of LTE and 5G at business processes
10.30-10.45	15 min	Break
10.45-12.30	105 min	Implementation: the scenarios
12.30-13.30	60 min	Lunch break
13.30-15.15	105 min	Status LTE worldwide
15.15-15.30	15 min	Break
15.30-16.30	60 min	The business Case 5G
16.30-16.45	15 min	Summary and Closing

For further information or for a proposal please contact us:

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