



# Telecommunication training

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. Rabi3n Consultancy offers a range of telecommunication training for network operators, service providers and telecom regulatory authorities.

## Who we Are

Rabi3n Consultancy BV is an independent consultancy firm in Information and Communications Technology, based in the Netherlands. Rabi3n Consultancy has no ties or relations to system developers or software companies. Therefore, we can be fully committed to the needs and requirements of our clients. We focus at the Telecommunication industry. Our clients are Telecom Operators, Service Providers, Telecom Regulators, Telecom solution/equipment suppliers. The company is founded in 1999 and privately held. Rabi3n Consultancy offers up-to-date training courses based on knowledge and expertise that is gained by our trainers in working with the latest developments in the telecommunication market.

The main areas of expertise that we work on are: Mobile Communication, International Roaming, Wholesale (MVNO, MNVE etc.), Broadband, Telecom and Data Infrastructure (xDSL, IP), VoIP, Telecom Business Processes, Number Portability and Numbering Management, Network Interconnection, and information security and data protection (GDPR).

Rabi3n Consultancy has a wide international experience in providing telecommunication training as well as in providing consultancy.

## Training programs

- International Roaming - 3 days
- Mobile Virtual network Operators – 2 day
- Mobile School: Mobile Communication networks and architecture – 4 days
- Numbering management and Number Portability – 2 day
- LTE and 5G awareness training – 2 days
- General Data Protection Regulation for providers of electronic communication – 1 day
- Introduction in telecommunication networks and technology – 3 day
- Introduction to 5G mobile communication – 0,5 day

### International Roaming

Extensive 3-day training on International Roaming for mobile communication networks, which contains all aspects of roaming services and processes, the technical backgrounds, the implementation and the commercials. Specific focus is given to roaming steering and diameter implementation, and revenue assurance. On the one hand the training provides extensive knowledge on technology and the business of roaming and on the other hand practical cases and examples. This



course is ideal for those who want to get up-to-date fast and want to become expert in roaming. The training is for multidisciplinary groups, mostly with mobile network operators.

#### **Mobile Virtual Network Operators - MVNO and Wholesale**

In this 2-day course all the aspects of the implementation of mobile wholesale are presented. The various wholesale models are explained: Mobile Virtual Network Operators (MVNO), Mobile Virtual Network Enablers (MVNE), Enhanced Service Providers (ESP), and resellers. The program covers: Overview of MVNO wholesale models and implementations, Provisioning and activation process, retail and wholesale billing Process, Network Solutions, Network Interconnection, Number Portability, and International Roaming.

#### **Mobile School: Mobile Communication networks and architecture**

The Mobile School is 4-day training about mobile communication and covers all technical aspects of mobile communication technologies such as GSM, UMTS, HSDPA, LTE and 5G. The participants will learn in detail the functions of the radio networks, core networks, and service implementations. Topics such as security, international roaming, interconnection, wholesale/MVNO, Numbering, SIM card management are presented in how these are implemented in mobile communication network solutions. The training consists of theory and of practical cases. The training is provided to groups of maximum 12 persons and is intended for mobile network operators that need to improve the knowledge level of their technical staff. It also provides overview and introduction in the new 5G technology, as well as developments in M2M and in IoT. Rabion Consultancy has provided (in-house) Mobile School training for more than 10 years. The training is in Dutch language or in english language.

#### **Numbering Management and Number Portability**

The workshop is a 1-day program that covers all technical, business, and legal aspects of mobile and fixed number portability. In addition, several country cases will be presented. The content of the workshop is as follows: The business model for Number Portability, Porting procedures, Service levels and Key Performance Indicators, Technical network solutions and challenges (Onward routing, Call query on release, All call Query), Trends: VOIP, ENUM and Fixed-Mobile Substitution, Impact of business processes (billing, interconnection, customer activation, network routing etc.), Inter-operator solutions (central solutions, decentralized solutions), central reference database solutions, clearing house functions) and inter-operator procedures, Regulatory trends and issues, Cost modelling and economic considerations. The workshop is aiming at telecom regulators as well as at network operators. In addition to the Number Portability workshop three expert sessions (half day each) are offered: Central NP Solutions and processes, Regulatory and Economics, Network Routing and Charging.

#### **LTE and 5G awareness training – 2 days**

This training is much like the mobile school but focusses on LTE technology, without taking account preceding 2G and 3G technology.

#### **Introduction to 5G mobile communication**

The 5G awareness training is a 0,5-day training in which the new 5G technology is presented. The program contains the latest developments in mobile communication and gives insight in this technology for the Fifth Generation Mobile Communication (5G) network. The key differences and



improvements will be highlighted, and a status of 5G worldwide will be presented. The training will present the 5G network architecture, the various services cases, and spectrum management and spectrum allocation will be investigated. The LTE awareness training is aiming at professionals with technical, legal, or economic/commercial backgrounds who are familiar with mobile communication but need latest and actual updates of their knowledge.

**General Data Protection Regulation for telecom operators – 1 day**

This 1-day training provides overview of the General Data Protection Regulation as is in force since May 2018 in the EU, and the impact this has specifically on telecommunication business operation and on the controlling and processing of personal data. Attention will be given to provisioning, billing, interconnection and international roaming and the impacts for storage and exchanged of personal data.

Insight will be provided in what this means for business operation and the measures to be taken : implementing Data Mapping, the role of a Data Processing Officer, Breach register and reach notification. In addition, the relations with information security and telecom law compliance will be further looked into.

**Introduction in telecommunication networks and technology**

This 3-day training presents overview of key telecommunication networks and technology such a mobile communication, Broadband communication, Broadcast technology, the Internet and internet protocols, transmission, cable networks and satellite communication. The training emphasizes on the technological aspects and its relevance for telecommunication regulation e.g. for international roaming, local loop unbundling, addressing, number management and number portability, spectrum management, safety and health issues, and international standardization. The course is suited for staff with various backgrounds: technical, legal and economical.

For further information or for a proposal please contact us:

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