

VoWiFi Basics

“Voice over Wi-Fi” course focuses on Wi-Fi introducing in telecom network. During the course Wi-Fi radio network is described. Signalling protocols with procedures and parameters are presented in details. IMS/RCS network nodes and nodes for sms and emergency call delivery.

Training method	Duration	Level
Lecture	1 day	Basic

Target audience

The course is intended for access network engineers, network tuning staff, WiFi services responsible, and anyone, who needs deep technical knowledge on functionality of WiFi services.

Training contents

- **Introduction**
(VoWiFi advantages, circuit and packet switching, LTE services, IMS basics, IP access to WLAN, I-WLAN, VoLTE networks),
- **Wi-Fi**
(WLAN network model, access to the network, BSSID identification, QoS, roaming, network traffic routing, PDG/TTG, E2E, GTP, WMM specifications),
- **Core Network**
(IMS standardization, IMS network access, GSM/UMTS networks, IMS evolution, EPS, I-WLAN architecture),
- **IP-CANs**
(GPRS, PDP, QoS profiles, network traffic classes, EPS, TFT, parameter mapping, connection procedure, IMSI, identities, WLAN access point, encapsulation, PCC),
- **Procedures**
(initial network selection, authentication and authorization in WLAN, WLAN registration, subscriber disconnection, OCS, charging, SLF, Wi-Fi untrusted access, PGW, session initiation, handover to LTE, Non-SIMCard authorization),
- **SMS**
(SMSoIP, registration),
- **IMS/RCS network architecture and security**
(basic IMS architecture, RCS R1-R5 architecture, IPX network architecture, numbering and addressing, ENUM in IMS, DNS and ENUM in RCS/IPX, IMS authentication, SIP signaling encryption and integrity control, GIBA, GAA),
- **Emergency Call**
(categories, numbers, URN, Emergency call setup, domain selection, architecture).

Prerequisites

General mobile network technology knowledge.