

Training: Compendium CE
IP in Mobile Networks

FORM OF TRAINING	MATERIALS	PRICE	DURATION
Traditional	Hardcopy	1500 EUR	5 days
Traditional	Digital materials	1500 EUR	5 days
Traditional	CTAB Tablet	1600 EUR	5 days

LOCATIONS

Krakow - 5 Tatarska Street, II floor, hours: 9:00 am - 4:00 pm

Warsaw - 17 Bielska Street, hours: 9:00 am - 4:00 pm

TRAINING GOALS:

This course presents Internet Protocol with underlying transmission technologies as well as higher level protocols and services. Extensive generic IP knowledge is covered and put into the perspective of mobile networks, in particular specific usage of IP-based services (such as .gprs domain or SIGTRAN) is included.

Target Audience - Who Should Attend and Benefit

This course is designed for technical staff of mobile networks' operators. It gives in-depth view on IP and related protocols so it will be beneficial to maintenance staff as well as network and service designers.

CONSPECT:

- Technology overview
 - Standardisation
 - GSM/GPRS
 - UMTS
- Internet protocol
 - IPv4 packet and addressing
 - IPv6 new features and addressing
 - QoS in IP
- Main IP L4 protocols
 - Internet Control Message Protocol

- Transmission Control Protocol
- User Datagram Protocol
- Stream Control Transmission Protocol
- IP routing
 - Routing principles
 - Autonomous systems
 - Routing Information Protocol
 - Open Shortest Path First
 - Border Gateway Protocol
- Domain Name System
 - Domain structure
 - DNS resolution
 - DNS in mobile networks
- IP tunnelling
 - IP Encapsulation in IP
 - Generic Routing Encapsulation
 - IPSec introduction
 - Virtual IP for tunnelling
 - GPRS Tunnelling Protocol
- IP security
 - Reasons for security in IP
 - Firewall concepts
 - Public Key Infrastructure
 - IPSec
 - DNSSec
 - Transport Layer Security
 - Mobile backbone perspective
- Management of IP hosts and networks
 - Point-to-Point Protocol
 - Dynamic Host Configuration Protocol
 - Remote Authentication Dial-In User Service
 - DIAMETER
 - Simple Network Management Protocol
 - Telecommunication Management Network
- Transmission technologies
 - Ethernet

- WLAN
- ATM
- MPLS and GMPLS
- IP services supporting protocols
 - Real-time Transmission Protocol
 - Hyper-Text Transmission Protocol
 - Wireless Application Protocol
 - Session Initiation Protocol
- Mobile IP-based services
 - Mobile vs IP QoS
 - MMS Architecture
 - SIGTRAN
 - IP Multimedia Subsystem
 - Mobile IP

REQUIREMENTS:

- The participants are expected to have generic technical (telecommunication or computer science) background, and ability to understand technical topics.
- No specific knowledge is required, but familiarity with GSM or UMTS architecture and services would be beneficial.

Difficulty level



CERTIFICATE:

The participants will obtain certificates signed by Compendium CE.

TRAINER:

Authorized Compendium CE Trainer.