



5G Essentials & USIM Evolutions for Next Generation Networks

A comprehensive insight into 5G evolutions for digital transformation

This training provides a comprehensive overview on next generation 5G Cellular network evolutions planned from today to 2020.

Including main focus of standards bodies on future needs such as:

Network Virtualization, Enhanced Broadband for Consumer devices, Emergency Services disaster requirements, low bandwidth high volume needs for industrial IoT..., with the challenges linked to securing these future services and subscriber data privacy.

At the end of the training you will:

- > Understand the drivers, service requirements, and main use cases targeted by network evolution towards 5G
- > Have a comprehensive overview of the key 5G concepts such as NFV, Slicing, Orchestration, Convergence...
- > Be able to describe the main 5G security considerations and possible solutions
- > Understand the 5G Standards 3GPP/ETSI organization, and their evolutions
- > Understand the 3GPP Release 15 USIM (& OTA) evolutions for 5G standards & coming products.

Who should attend?

All people involved in 5G projects:

- > Marketing Managers
- > Project Managers
- > Technical team
- > SIM Manager
- > VAS Manager
- > Operational Team
- > Security Managers
- > ...

Pre-requisites:

- > No specific pre-requisites for this course
This course is held in English



PROGRAM

5G Overview & Subscriber Security Essentials for Next Generation Networks

- > Drivers for a 5th Generation communication networks
- > Key use cases targeted by 5G (presentations & videos)
- > Enabling future Services & Solutions – 5G Concepts
 - Main requirements for segments:
 - Massive IoT
 - Critical Comms
 - Enhanced Mobile Broadband
 - Network Operation Optimization
 - Existing technos Convergence with 5G: IEEE Wi-Fi, 3GPP LTE, 3GPP NB-IoT, Roaming...
 - 5G Infrastructure: Network Function Virtualization – Slicing/Orchestration, Mobile Edge Computing, Service-Based Architecture, ...
- > Market impacts: New actors, roles, biz models
- > Security considerations & Possible Solutions: Privacy, integrity, ...
 - Solutions, legislation, Consumer impacts ...
- > Standardization
 - Overview on 3GPP & ETSI standards for 5G,
 - Current Status, Deployment Roadmaps, Network Migration options
- > USIM evolutions in 5G
 - Primary Network Authentication
 - 5G Key Hierarchy & Storage resulting from 5G Authentications
 - USIM Role (UST Services & files storing connectivity/security contexts)
 - Long Term Key Update procedure (New USIM mechanism)
 - Subscriber Privacy Protection
 - Subscriber identity confidentiality
 - SUCI, SUPI (New USIM services/files/command/API package)
 - Home Network Public Key storage (EF file)
 - Control plane-based Steering of Roaming (New USIM service)
 - Identity verification for Visited Networks (Lawful Interception...)
 - Toolkit Evolutions overview
 - 5G Phase 2 standards: Open discussion
- > OTA Evolutions for 5G-related services
- > IoT embedded UICC & 5G outlook

