

Mastering UICC Cards for LTE Networks

Everything you need to know about UICC Cards, Technologies, Security & Services

Mobile Connectivity Solutions



UICC cards play a larger role today, than simply securing access to advanced mobile networks. They are also used as standard, secure & portable platforms for personal data & value added services (VAS); remotely updateable in a standard & secure way "Over-The-Air" (OTA).

This course will allow you to understand the main standards, technos, features & security of these products for LTE networks. Questions on UICC deployment choices, configuration & optimization for network services will be presented.

It will also allow you to analyze & manage UICC card content using state-of-the-art tools.

At the end of the training you will:

- Understand UICC card functionality for LTE, to ease analysis & management of cards using admin. tools
- Have a clear overview on security mechanisms, and what subscriber-related information is stored in such cards
- Understand the concepts & mechanisms around VAS toolkit technology & new service opportunities with latest standards
- Have a clear overview on the process & security around OTA, for remote management of UICC cards on LTE networks
- Benefit from real field feedback on what USIM – ISIM cards & services are currently deployed on LTE & IMS networks

Who should attend?

- MNO SIM & Device Management Teams
- VAS Innovation & Project Management Staff
- Network Infrastructure & Handset Manufacturer Testing Teams
- Roaming Staff
- Security Teams...

Pre-requisites:

- Good knowledge on SIM & USIM cards (See "Learning Paths" at end of document)
- This course is held in English





PROGRAM

Introduction

- Why LTE (drivers)
- What additional services will it bring (IMS, RCS...)
- Architecture of network, Voice, data, IMS, interconnection

SIM & USIM Cards

- Introduction to UICC architecture (reminder)
- Standards, existing & new ones
- New features in the standard & what this can bring
 - File systems & new files
 - New keys & Handset interaction
 - Authentication for EPS
 - Additional Applications what for, how implemented
 - New Toolkit features, and possible services
- Migration path to LTE "SIM"
 - SIM alliance recommendations
- Inter-standard Roaming, balancing (3GPP / 3GPP2), new roaming files
- Femtocells (Home (e)Node B) overview, features & UICC file(s)

Understanding ISIM for Identification & Authentication on IMS

- Introduction to ISIM & Voice (VoIP) - SMS in LTE
- ISIM authentication and Implementation
- ISIM basic files, additional files & functionality
- Logical channel application selection
- Other features: OTA provisioning of IMS User identities; RCS overview, GBA...

OTA for LTE (Remote Management over https) Overview

- Introduction to move from SMS, BIP to https
- Standards
- Basic Architecture
- Security concepts
- Use cases: Remote Management of UICC

Practicals

- UICC Files browsing
- Activation of LTE file services in UST
- Roaming file wAcT settings
- Access Conditions for User/Operator Femtocell files
- Demo: Analyse boot phase with channel management & UST service activation
- ISIM Files browsing
- Activation of ISIM additional services in IST
- Connection parameter settings
- Demo: Analyse boot phase with channel management
- Demo of OTA sending APDU scripts over HTTPS