



Mastering UICC Cards for LTE Networks

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

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

UICC for LTE

- > Introduction to UICC architecture (reminder)
- > Standards, existing & new ones
- > New features in the standard & what this can bring
 - o File systems & new files
 - o New keys & Handset interaction
 - o Authentication for EPS
 - o Additional Applications what for, how implemented
 - o New Toolkit features, and possible services
- > Migration path to LTE "SIM"
 - o 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