

SIM, STK & OTA Basics

Everything you need to know about the SIM, related Services & Technologies



SIM cards play a larger role today, than simply securing access to a GSM network. They are also used as standard, secure and portable platforms for **Value added services**, remotely updateable in a **standard & secure** way “**Over-The-Air**”.

This training course will allow you to easily understand the **main technologies & features** of these products to optimize management & rapidly deploy your own SIM cards & Value-Added-Services Applications.



At the end of the training you will

- > Have a clear & comprehensive overview of the main GSM SIM-related standards.
- > Understand SIM card functionality to ease testing of new profiles.
- > Have a clear understanding of what VAS can be implemented & deployed with “SIM Toolkit” technology.
- > Understand the “Over-The-Air” (OTA) process, for optimizing remote management of your SIM card data & services

Who should attend

- > SIM Manager
- > VAS Manager
- > Handset Validation Team
- > Project Manager
- > Developer Staff
- > Roaming Manager
- > ...

Pre-requisites:

- > No specific pre-requisites for this course

This course is held in English

Key topics

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| <ul style="list-style-type: none"> > SIM > ISO 7816 > GSM 11.11/ 3GPP 51.011 > GSM 11.14 | <ul style="list-style-type: none"> > GSM 03.48 / 3GPP 23.048 > SIM Toolkit & Real examples of VAS > SMS & “OTA” & remote management use-cases > Network & Remote Authentication |
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Course Schedule



Day 1	Practice
<p>Introduction to SIM cards & related solutions</p> <ul style="list-style-type: none"> > Different cards for different needs > SIM-related software & solutions for VAS <p>Understanding SIM Cards & Interface with Mobile Equipment (GSM 11.11 standards)</p> <ul style="list-style-type: none"> > Card architecture > Card life phases > Memory organization & File System > Access conditions > Security features > Special features > Command set <p>Understanding SIM Application Toolkit</p> <ul style="list-style-type: none"> > GSM 11.14 Standards > SIM Toolkit definition > Real use-case benefits & examples of VAS implemented with STK technology 	<p>SIM Files browsing, for testing SIM profile PIN management (change, unlock...) Network Authentication simulation File creation Tools for troubleshooting & optimizing SIM testing phase</p>

Day 2	Practice
<ul style="list-style-type: none"> > SIM toolkit commands > SIM toolkit protocols – Interaction with Handset <p>Remote management of SIM cards & services</p> <ul style="list-style-type: none"> > Introduction to SMS for “Over-The-Air” SIM management > Real-life use cases for OTA > Analysis of different steps of message “journey” > Understand OTA platform security parameters & their interaction with the SIM (following GSM 23.048 Standard) > Proof of Receipt: Message acknowledgement & troubleshooting 	<p>STK application loading & testing with SIM ADMIN & Mobile SIMULATION software</p> <p>OTA testing using SIMu tools: Downloading securely GSM data Over-The-Air Analysing proof of receipt acknowledgements</p>

