Mobile Connect training program
Fundamentals & Technology

Mobile Digital Identity Ecosystem
Everything you are looking for a trusted digital identity Ecosystem

**Mobile ID** offers a set of multi-layered authentication and identity management services, enabling any MN0 to easily become universal digital identity provider.

This course will allow you to easily understand the main standards, stakeholders, technologies, features & security around this **Mobile Digital ID** ecosystem, including **Secure Elements, Authenticated Applications and Solutions** compliant with GSMA Mobile Connect.

**Mobile Digital Identity** requirements for co-operation between these different stakeholders, and **Global Platform** concepts for security and confidentiality will also be explained.

**At the end of the training you will**

- Be able to understand Mobile ID Ecosystem
- Have an overview on UICC (SIM) Secure Element functionalities
- Know how the different actors can manage several applications on the same card via Global Platform (GP) specifications

**Who should attend?**

All people involved in Mobile Identity project:

- 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

**KEY TOPICS**

- GSMA
- Mobile Connect
- Secure Elements (eSE, μSD, UICC)
- ETSI
- Security Domain / ISD
- Global Platform 2.2
- LoA
- OPEN ID
Introduction to Mobile Connect

What is Mobile Connect?

> What is Mobile ID?
> Use Cases
  * Online Bank Auth
  * Mobile Money Transfer
  * E-government services
  * VPN access
  * SSO & Identity
  * ...
> Mobile ID users (employees, partners, customers, consumers, citizens)
> Ecosystem evolution
> Digital Identity standards (ETSI, OPEN ID Connect)
> Identity organizations (GSMA, OPEN ID, FIDO)
> Trust frameworks (OIX)

Focus on Security

> Types of attacks
> Risks involved
> Consequences for User/Service Provider

> Basic principles of Securing User identity & online transactions (Identity, Authenticity, confidentiality, non-repudiation)
> PIN solution (advantages & limitations)
> Symmetric cryptography solutions (idem)
> PKI principles
> Mobile Connect key Authenticators (LoA, Usage & Security)
> Authentication methods (OTP, Password, PIN, Mobile, PKI, biometrics...)
> OpenID, SAML

Focus on Secure Element

> JavaCard-based SIM Cards
  * Introduction
  * Architecture
  * Applet management
  * INSTALL(Load), LOAD, INSTALL(Install) Commands
> STK and JavaCard-based SIM Card
  * STK reminder
  * Event management
  * Toolkit Installation parameters
  * Proactive commands structure

Global Platform Basics

> What is GlobalPlatform?
> How actors can manage their applications on the same card
> What is a Security Domain & how can it be used?
  * Privileges, market trends...
> Secure Channel Protocol
> Card Content Management basics (INSTALL, LOAD, PERSO, EXTRADITION....)
> Global Platform Commands summary
> GP Access Control
  * Mechanism to access applications installed in the secure elements

Focus on Solutions for Mobile Identity Security

> Market solutions overview
> Comparison of benefits & limitations of different solutions
> Best Practices for Deployment via Case Studies
  * Technical & Business considerations
> Architecture of mobile PKI end-to-end solution
> Role of each brick in the solution & interfaces with existing infrastructure
> Actors: who is responsible for what
> Mobile Network operators: Role & opportunities
> ETSI 102 204 standard overview and how it is actually implemented in real deployments
> Demos