

# Contactless & NFC Basics

## Objectives:

At the end of this course you will:

- ✦ Have an overview of NFC (Near Field Communication) use cases, architectures, requirements.
- ✦ Learn the various contactless technologies (mifare, type A, type B, felica) and RFID (ISO 15693)
- ✦ Have a clear vision of the security requirements
- ✦ Understand the Over The Air personalization

## Key Topics:

- ✦ Contactless technologies
- ✦ NFC (Near Field Communication)
- ✦ OTA
- ✦ RFID
- ✦ Co-operation between mobile operators, transport and banks.
- ✦ Global platform
- ✦ Security
- ✦ Standardization

## Who should attend:

Bank, Telecom, transport staff:

- ✦ Marketing Managers
- ✦ Project Managers
- ✦ Technical team just assigned to NFC and want an introduction



Mobile Contactless offers new opportunities to mobile operators, banks, transport companies and other service providers.

This training will help mobile operators and service providers to better understand the ecosystem and solutions available for proper deployment.

## Each training session consists of:

- ✦ A complete course manual

## Pre-requisites:

- ✦ This course requires participants to have a basic knowledge on telecommunications, banking or transport applications.
- ✦ This course is held in English

**Duration:** 1 Day

## Course fee:

Please refer to regional schedules on [www.gemalto.com/training](http://www.gemalto.com/training) or contact us: <http://www.gemalto.com/training/contact.html>

## Location:

Gemalto Training Centers. For on-site training, please contact us.

**Course Schedule:**

| Day 1   |
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| <p>Introduction to NFC</p> <p>NFC use cases</p> <ul style="list-style-type: none"> <li>+ card emulation mode</li> <li>+ reader mode</li> <li>+ P2P mode</li> </ul> <p>Overview of the contactless market in transportation, payment, identity, access control</p> <p>Contactless technologies</p> <ul style="list-style-type: none"> <li>+ ISO 14443 type A, mifare®</li> <li>+ ISO 14443 type B, B'</li> <li>+ Felica</li> </ul> <p>RFID: difference between NFC and ISO 15693?</p> <p>Possible architectures for Mobile contactless</p> <ul style="list-style-type: none"> <li>+ Embedded secured element</li> <li>+ SIM card</li> <li>+ Removable secured element</li> <li>+ Role of HCI (host controller interface)</li> </ul> <p>Multi application architecture</p> <ul style="list-style-type: none"> <li>+ Global Platform</li> <li>+ OTA management: requirements, challenges, roles and responsibilities</li> </ul> <p>Security requirements</p> <ul style="list-style-type: none"> <li>+ transport</li> <li>+ payment</li> <li>+ other applications</li> </ul> <p>Standardization status</p> <ul style="list-style-type: none"> <li>+ NFC forum</li> <li>+ ETSI</li> <li>+ GP</li> </ul> <p>Outlook of the NFC deployments</p> <ul style="list-style-type: none"> <li>+ Overview of the current NFC pilots</li> <li>+ Examples of Japan and France</li> </ul> <p>On Request, the training can be customized for banking, transport or telecom sector.</p> |

**Related Courses:**

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| <b>Global Platform<br/>2.1.1 (T1004I)</b> | <b>Contactless &amp;<br/>NFC Basics<br/>(T1005I)</b> | <b>Understanding<br/>Smart Card Web<br/>Server Technology<br/>(T1016S)</b> |
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