

# ***NFC and Open Application Development***

## ***MIT Enterprise Forum***

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# *The Emergence of NFC in 2011*

- **Recent Announcements by ISIS, Apple, RIM, Google..**
- **Prediction of >40M commercial devices in market by end 2011**
- **Rapid Acceleration of NFC Ecosystem Development in 2011**
- **Importance of true open standards for NFC software stack**
- **Authentication critical to broad, scalable application roll-out**
- **INSIDE at the forefront of ‘Open’...**

## Who We Are....

- Fabless Semiconductor Company
- Private – Venture and Strategic Investors
- Markets – Payments, Transit, ID, and NFC
- Headquarters – Aix-en-Provence (325 persons globally)
- Recent Acquisition – Atmel Secure Microcontroller Solutions

## What We are Known For...

- #1 Provider – PayPass, payWave Chips for US Contactless Payments
- #2 Market Share Provider – Payment Chips Globally
- Inventor, Market Leader – NFC Chip Solutions
- Leader in ‘Open’ – Payment, ID, Transit, and NFC Solutions
- Security – – Focused 100% on Secure Transactions

*Our DNA... Agile, Innovative, Security Focused, Customer Oriented, Solid*

# ***INSIDE's Best in Class NFC Enablement***

- **NFC Forum Patent Pool 'Essential' Status - Clear IP, Inclusive Price**
- **Comprehensive Roadmap, Multiple Architectures**
- **Best of Breed, Mature NFC Solution**
  - MicroRead™: Standalone NFC Controller
  - SecurRead™: NFC Controller with Secure Element in single package
  - Exclusive Support for iClass (HID access control)
- **Open NFC™ Software Stack: 'True' Open, No Cost**
- **Unique Integration & Support Team**
- **Global Market Leader in Contactless Payments**



# ***What is Open NFC™***

***Open NFC™ is a portable software stack for NFC functions on top of an NFC hardware layer. Implementation is hardware neutral for use with a Hardware Abstraction Layer (HAL).***

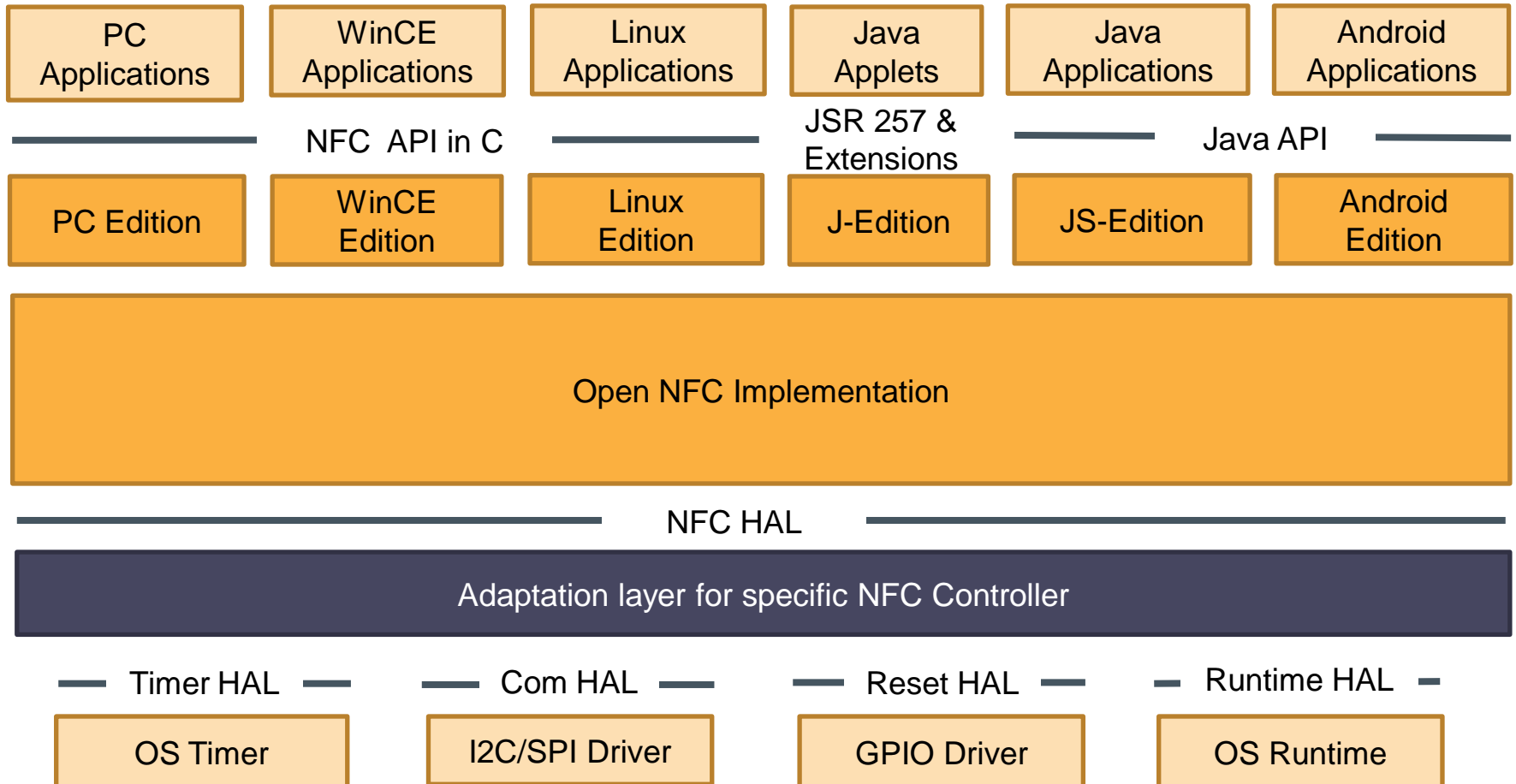
***Developed and launched by INSIDE Secure***

# *What is Open NFC™ (cont.)*

- **Open NFC supports several levels of functionality**
  - Low-level RF control; NFC Forum-specified tag handling
  - Peer-to-peer communications; Bluetooth and Wi-Fi pairing
  - Interactions with single-wire protocol SIMs and other secure elements
  - Compatible with smart cards, RFID tags (Felica, MIFARE, and ISO 14443)
- **Open NFC offers a consistent API across all NFC HW, simplifies and accelerates development. Available for:**
  - WinCE 6.0 (compatible w/ Windows™ Mobile 7),
  - Linux 2.6, MeeGo, and Android platforms.
- **NFC Evaluation Kit and Integration Services**

# Open NFC™ Software Stack

- Under Apache License
- Under INSIDE HAL License
- Customer Development



# *Open NFC™ Open Source Project*

- **Source Forge Project Sponsored by INSIDE**
  - Mission to develop open source resource for multiple device ecosystems
  - Android today; other ecosystems in development
  - See [www.open-nfc.org](http://www.open-nfc.org)
- **Contributions: Source, Patches, Documentation...**
  - Provided under Apache 2.0 open source license
  - Anyone open to provide contributions
  - Submit to [opennfc@insidefr.com](mailto:opennfc@insidefr.com)
- **NFC Hardware Abstraction Layer (HAL) Implementations**
  - Support included for INSIDE's MicroRead™ and SecuRead™ hardware
  - Project supports contributions for other NFC HAL implementations

- **Android Developer Resources**

- Functional Specification

[http://open-nfc.org/opennfc\\_library/overview-summary.html](http://open-nfc.org/opennfc_library/overview-summary.html)

- Reference API's

[http://open-nfc.org/opennfc\\_library/reference/packages.html](http://open-nfc.org/opennfc_library/reference/packages.html)

- **Open NFC for Android Download (v4.0.0)**

<http://sourceforge.net/projects/open-nfc/>



# *Join The Open NFC™ Movement*

- **Download Open NFC**
- **Call INSIDE for details on the program.**
- **Provide feedback/comments on the software stack**
- **Apache license**
- **INSIDE has available kit's for compatible hardware**

# *Questions & Discussion*

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