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


- 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
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
• 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

PC Applications
WinCE Applications
Linux Applications
Java Applets
Java Applications
Android Applications

PC Edition
WinCE Edition
Linux Edition
J-Edition
JS-Edition
Android Edition

Open NFC Implementation

NFC HAL
Adaptation layer for specific NFC Controller

- Timer HAL
  - OS Timer
- Com HAL
  - I2C/SPI Driver
- Reset HAL
  - GPIO Driver
- Runtime HAL
  - OS Runtime
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

• Contributions: Source, Patches, Documentation…
  – Provided under Apache 2.0 open source license
  – Anyone open to provide contributions
  – Submit to 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
  – Reference API’s
    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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