



ADVANCING NEAR
FIELD COMMUNICATION
TECHNOLOGY

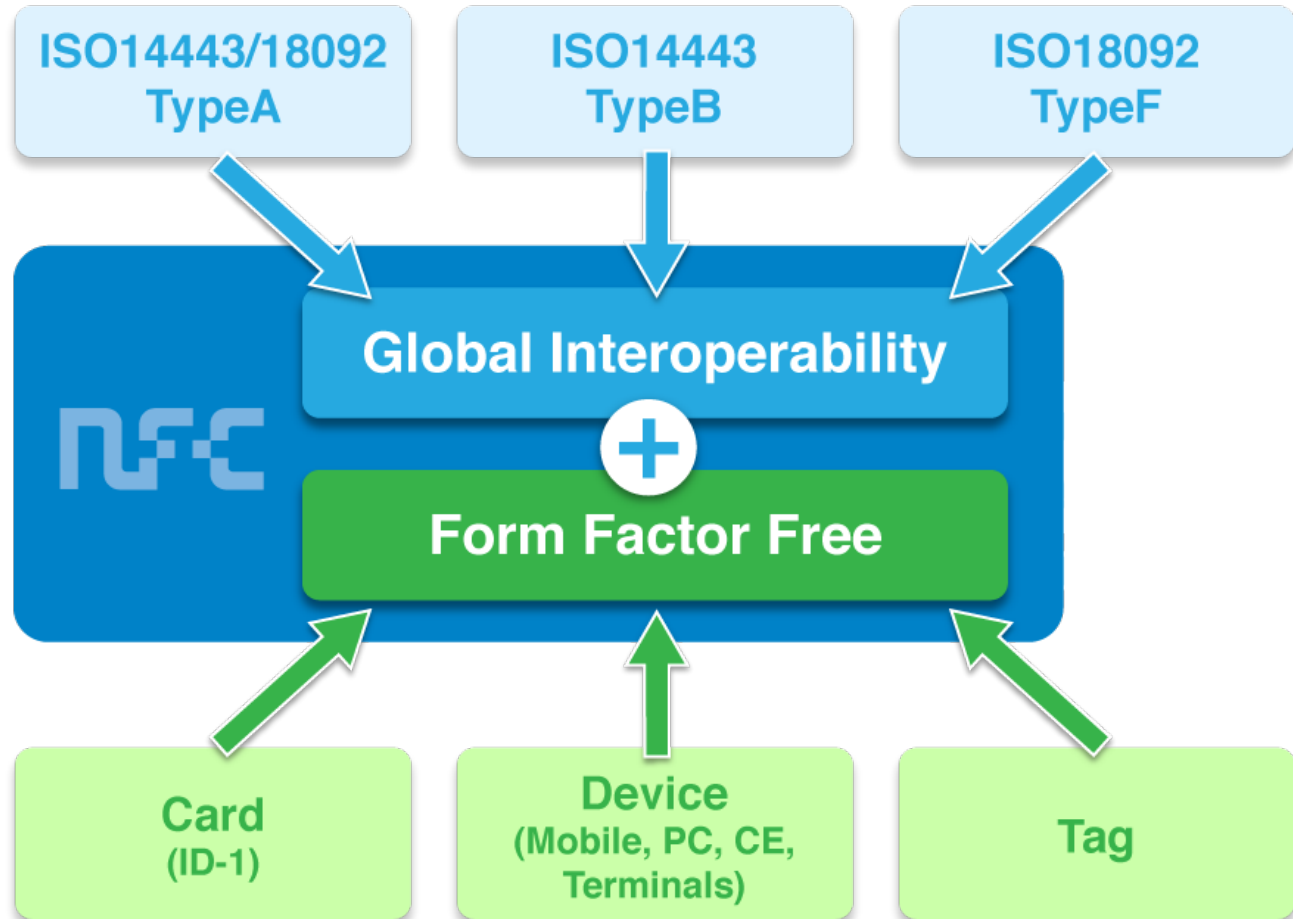


NFC Payment ... and Beyond

Koichi Tagawa
Sony Corporation
Chairman, NFC Forum

February 15, 2010

What is NFC?



NFC and Mobile Payment

- Popular use case
- Builds on contactless infrastructure



Adding NFC to Terminals Adds Value to Mobile Payments

**ISO 14443
Contactless Card**



NFC Phone



MAY RECEIVE
Basic
Acknowledgements
and Updates



ISO 14443 Terminal + NFC

RECEIVE
Coupons
Loyalty Points
Receipts
SMS links to websites

Payment can be Enhanced for the User with Mobile NFC

- Mobile NFC can be used for payment at kiosks, ticketing, internet, or person-to-person.
- Additional uses that enhance payments include:
 - Tickets can be purchased, stored, and redeemed.
 - Prepaid cards can be bought, stored, and accessed in the phone.
 - Coupons can be transferred to a friend, recommending products.
 - Product history and medical warnings can be read in the store.
 - Shopping lists can be collected from tags.
 - Electronic devices can be activated after purchase and warranties sent in.
 - And many more!

NFC Is More Than Payment and Mobile Phones

- NFC mobile phones are for more than payments:
 - Secure access to buildings and PCs
 - Inventory control with tags and readers
 - Security patrols
 - Patient monitoring
 - Information gathering with educational tags

- NFC brings value to many electronics in addition to phones



Getting to Market

Core Specs
Winter 2010

Compliance
Fall 2010

Ecosystem
Ongoing

We Are Well into the Journey

Phase One
Define and Stabilize Technology

Phase Two
Support Interoperability
Enhance Technology
Support Ecosystem

Phase Three
Refine Technology
Expand Ecosystem
Promote End User Usage

2007 2008 **2010** 2011 2012/13

14 Specifications Published as of February 2010

Specification	Milestone	Date
Data Exchange Format Technical Specification		
NFC Data Exchange Format (NDEF) Technical Specification	Adopted	24-JUL-2006
NFC Forum Tag Type Technical Specifications		
NFC Forum Type 1 Tag Operation Specification	Adopted	9-JUL-2007
NFC Forum Type 2 Tag Operation Specification	Adopted	9-JUL-2007
NFC Forum Type 3 Tag Operation Specification	Adopted	16-AUG-2007
NFC Forum Type 4 Tag Operation Specification	Adopted	13-MAR-2007
Record Type Definition Technical Specifications		
NFC Record Type Definition (RTD) Technical Specification	Adopted	24-JUL-2006
NFC Text Record Type Definition (RTD) Technical Specification	Adopted	24-JUL-2006
NFC URI Record Type Definition (RTD) Technical Specification	Adopted	24-JUL-2006
NFC Smart Poster Record Type Definition (RTD) Technical Specification	Adopted	24-JUL-2006
NFC Generic Control Record Type Definition (RTD) Technical Specification	Adopted	7-MAR-2008
Signature Record Type Definition (RTD) Technical Specification	Candidate Released	11-NOV-2009
Reference Application Technical Specifications		
NFC Forum Connection Handover Technical Specification	Adopted	6-NOV-2008
Protocol Technical Specifications		
NFC Logical Link Control Protocol (LLCP) Technical Specification	Adopted	11-DEC-2009
NFC Digital Protocol Candidate Technical Specification	Candidate Released	3-APR-2009

Plans for 2010 and Beyond

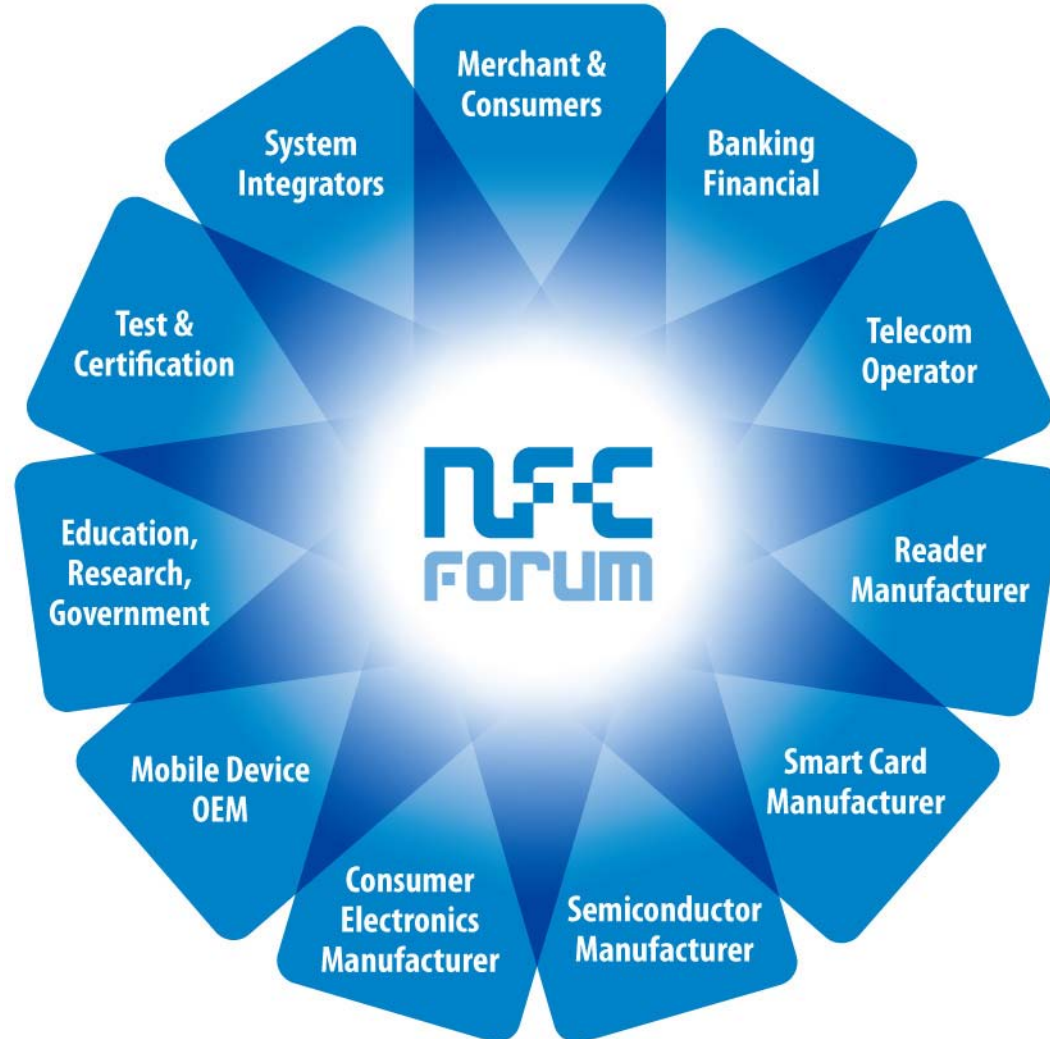
- **Certification Program launch** scheduled for late 2010, program will be expanded in 2011
- **Complete the core specifications** in 2010, then maintain and enhance them
 - Enable non-secure applications beyond payment and transport, address NFC in consumer electronics
- **Build frameworks to support implementations** such as transport or retail
 - Develop specifications, use cases, best practices, etc.
- **Work with industry groups**
 - Current liaisons with key ecosystem players like EMVCo, ETSI, GSMA, Mobey Forum, Smart Card Alliance
 - More liaisons planned

Major (Public) NFC Projects Globally



Over 100 NFC projects, trials, and commercial deployments worldwide have shown positive feedback from consumers regarding ease of use.

The NFC Ecosystem is Broad and Complex



The NFC Forum Is Working to Build the NFC Ecosystem

- New marketing alliances are driving targeted programs, such as Spotlight events for verticals
- Educational seminar in Shanghai in March
- Database on our website describing projects around the world should be announced this spring
- The annual NFC Forum Global Competition is underway
- Transport White Paper finalized early this year
- Various webcasts scheduled throughout the year

Join Us!



Advancing the use of Near Field
Communication technology

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Questions?

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