



ADVANCING NEAR
FIELD COMMUNICATION
TECHNOLOGY

The Foundation for Progress with NFC

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The Promise of NFC

NFC technology makes life easier and more convenient for consumers around the world by making it simpler to:

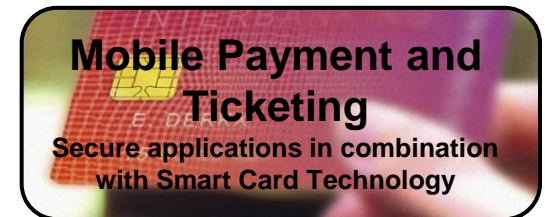
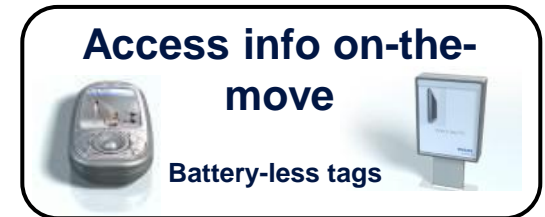
- Perform transactions
- Exchange digital content
- Connect electronic devices

... with just a touch.



The Harmonization of NFC And Contactless

- NFC harmonizes today's diverse contactless technologies, enabling current and future solutions including:
 - Access control
 - Consumer electronics
 - Check in
 - Healthcare
 - Information collection and exchange
 - Loyalty and coupons
 - Payments
 - Transport



Mission and Goals

- The mission of the NFC Forum is to advance the use of NFC technology by:
 - Developing standards-based specifications that ensure interoperability among devices and services
 - Encouraging the development of products using NFC Forum specifications
 - Educating the market globally about NFC technology
 - Ensuring that products claiming NFC capabilities comply with NFC Forum specifications

We're Well Into The Journey

Define and Stabilize
Technology

Support Interoperability
Enhance Technology
Support Ecosystem

Refine Technology
Expand Ecosystem
Promote End User Usage

2008

2009

2010

2011

2012/13

Marketplace Situation

- Business models are coming together to launch major NFC initiatives
 - MNOs and financial service providers are collaborating
 - Handset manufacturers, governments, financial service providers, universities, and retail companies are joining forces
- Transport operators are mandating use of NFC
- Stadiums are implementing NFC for ticketing
- NFC enables quick and secure connection handover, which is useful for Bluetooth pairing, WiFi set up, and more
- Consumer acceptance and excitement are high with approval ratings up to 85%

Finding success and growing in many countries

- Austria
- China
- Czech Republic
- Finland
- Germany
- India
- Ireland
- Italy
- Japan
- Malaysia
- Netherlands
- South Korea
- Sweden
- Taiwan
- United Kingdom
- United States

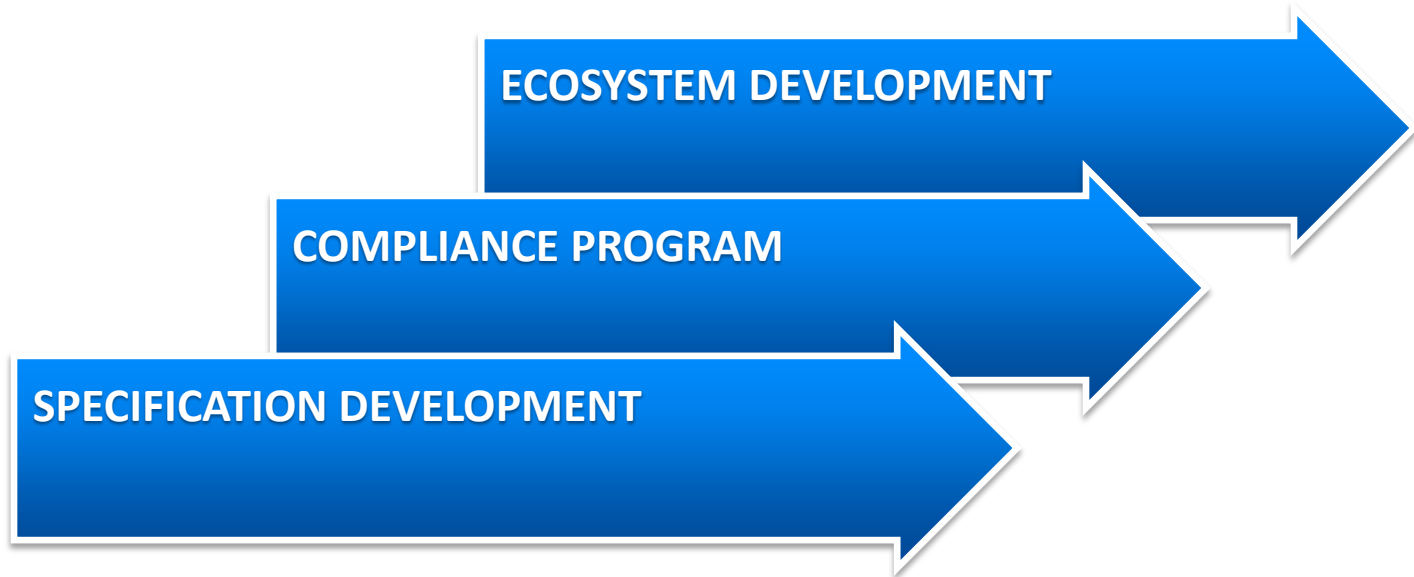
Growing NFC Device Support

- Leading US PC maker now including NFC in all laptops shipped to enterprise customers
- Leading global handset/platform companies adding NFC to smart phones starting in 2011
- A global leader in consumer electronics has shipped 10 million reader/writers, including NFC for PCs and TVs
- Juniper Research forecasts that one in every six mobile users worldwide will have an NFC-enabled phone by 2014
- NFC-like solutions are testing business cases and user uptake



NFC Forum Activities

Steps to Success



Flexible and Stable Specifications

- NFC Forum specifications form a solid base that supports all implementations and approaches
 - Global
 - Universal
 - Device independent
 - Building blocks applicable to many verticals and use cases
- The specifications enable basic interoperability
- Ecosystem players are implementing them today
- Can be downloaded free of charge

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SPECIFICATION DEVELOPMENT

2010

15 Specifications Published

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 2.0	Adopted	18-NOV-2010
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
NFC Signature Record Type Definition (RTD) Technical Specification	Adopted	18-NOV-2010
Reference Application Technical Specifications		
NFC Forum Connection Handover 1.2 Technical Specification	Adopted	7-JUL-2010
Protocol Technical Specifications		
NFC Logical Link Control Protocol (LLCP) Technical Specification	Adopted	11-DEC-2009
NFC Digital Protocol Technical Specification	Adopted	17-NOV-2010
NFC Activity Technical Specification	Adopted	18-NOV-2010

- Focused on enhancements that build on existing NFC Forum specifications
 - Support a significant business need
 - Include features relevant to some part of the overall solution architecture
 - May reference external specifications (existing or in development)
 - May include support for verticals (e.g., application profiles)
 - Many possibilities, such as new protocols, improved coexistence with other wireless technologies, improved integration with supporting technologies
- Likely to focus on other organizations that are related to NFC

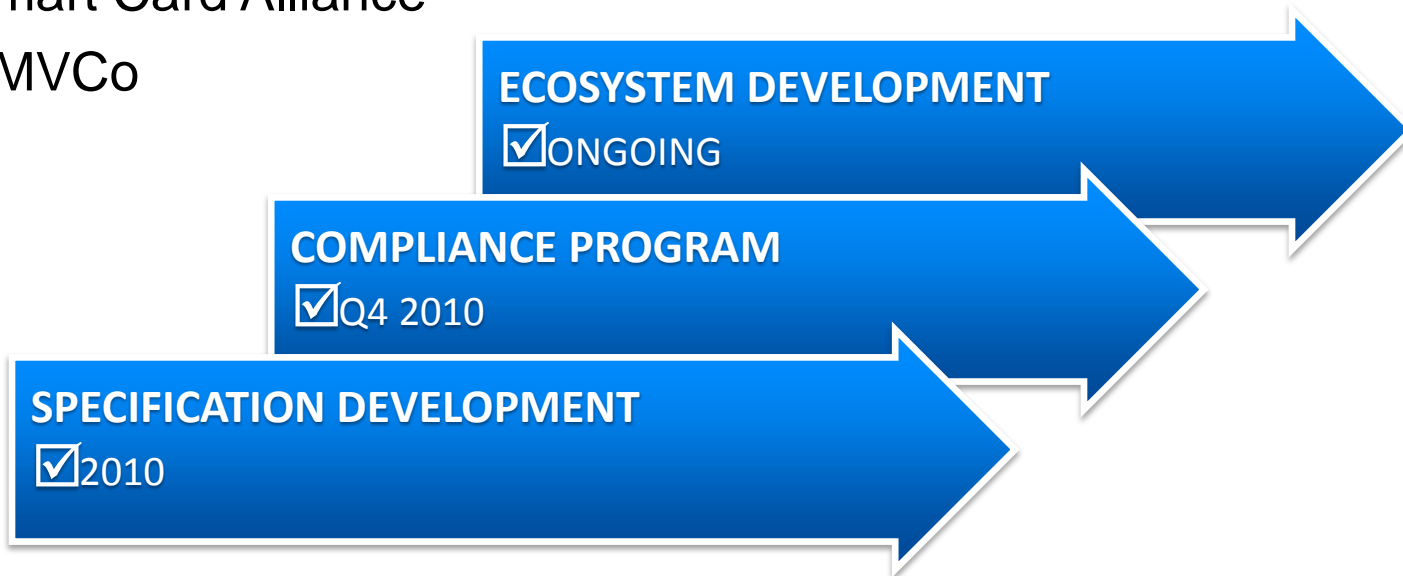
Step #2: Certification Program

- First Wave launching today
- Tests devices for compliance with NFC Forum specifications
- Culmination of years of member work



Step #3: Build the Ecosystem

- Liaisons formed
 - GSMA
 - Mobey Forum
 - ETSI
 - Smart Card Alliance
 - EMVCo
- Key to building out the ecosystem and ensuring interoperability



- Established new lower-priced Implementer Membership to allow companies to:
 - Join and certify their products
 - Get real-world feedback
 - Share experiences
 - Help drive new business requirements for future technical work
 - Create networking opportunities
- Events, webcasts, and white papers will be developed and used to evangelize

NFC is on solid ground...

**The foundation has been
laid for enormous
growth...**

**We are inventing the
future!**



NFC Forum

<http://www.nfc-forum.org>

Questions?

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