



ADVANCING NEAR
FIELD COMMUNICATION
TECHNOLOGY

The Foundation for Progress with NFC

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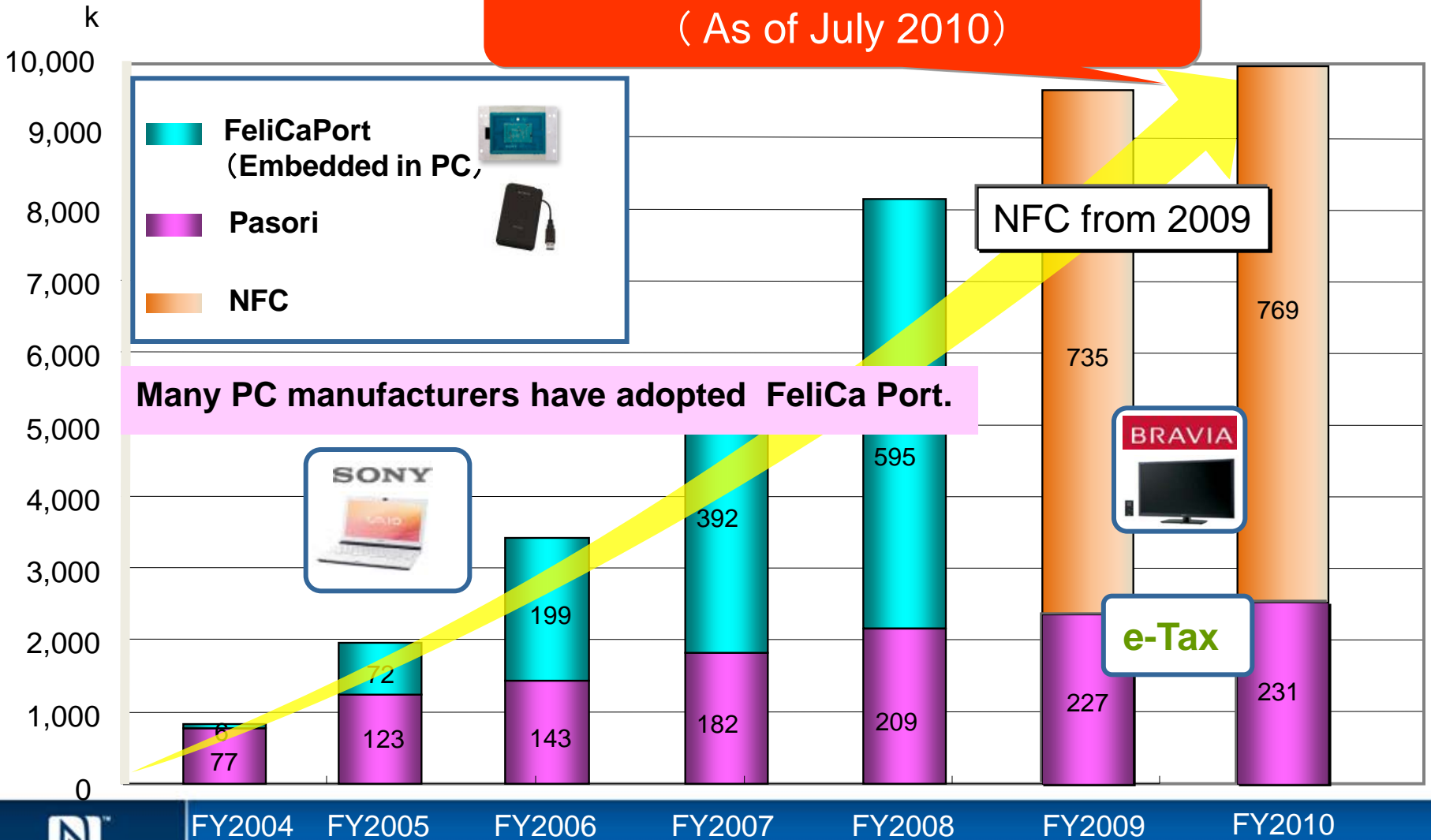
- We keep hearing “next year” about NFC...
- But major developments are occurring, especially in Asia
 - Large markets with just a few strong telcos may be the first to have major deployments
 - They have the size and clout to push handset manufacturers
 - Trials and projects in the region have resulted in proven consumer excitement about the technology and its uses

NFC is Now Being Added to Devices

- NFC is included in all Dell laptops being shipped to enterprise customers
- Nokia is adding NFC to smartphones starting next year
- Bridging solutions like microSD cards, sleeves, and stickers are testing user take-up and business cases
- SONY has shipped 10 million reader/writers, including NFC for PC's and TV's

Cumulative Shipments of FeliCa Port and Pasori

Accumulated total: 10 Million
(As of July 2010)



Projects Worldwide

**Trials – and now commercial rollouts –
are finding success and growing
in over 100 countries**

- France
- Holland
- UK
- Germany
- South Korea
- Turkey
- US
- Thailand
- Russia
- Singapore
- Poland
- China
- Spain
- And more!

The Foundation is Working

- We are learning that one size does not fit all!
 - Different markets have different needs
 - Different combinations of players lead to different solutions and vice versa

The good news...

NFC Forum specifications are flexible enough to support all programs to date

Specifications are Stable and Flexible

- The NFC Forum has finalized 13 specifications, with 3 candidate specifications pending.
- Our core specifications enable a basic level of interoperability.
- Our standards are flexible, global, universal, and device independent – a solid base of technology that will work no matter what approach each implementation takes.
- Our specifications are building blocks – applicable to many verticals and use cases

16 Specifications Published as of September 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
NFC Signature Record Type Definition (RTD) Technical Specification	Candidate Release	11-NOV-2009
Reference Application Technical Specifications		
NFC Forum Connection Handover Technical Specification	Adopted	6-NOV-2008
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 Candidate Technical Specification	Candidate Release	3-APR-2009
NFC Activity Candidate Technical Specification	Candidate Release	12-MAR-2010

Certification is a Key Next Step

- “First Wave Certification Program” will be launched in late 2010
- Certification Program formally tests devices for compliance to specifications
- 30+ member companies worked together to:
 - Define high level conformance requirements
 - Develop certification policy and procedures
 - Define and develop test cases, test procedures, validated test tools, and test laboratory relationships

Certification Plans for 2011-2012

- Increase Plugfest activities for interoperability testing
- Update test specifications, test cases, and test tools
- Introduce the 2nd wave of the certification program in 2011-2012
- Pursue consolidating testing activities with other groups

Certification will further support a variety of programs and implementations

- Likely to focus on enhancements with characteristics that overlap significantly with 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
- Closer alignment with other organizations that are related to NFC

Focus on Implementers

- NFC Forum is ready for market input
- Established new lower-priced Implementer Membership to allow companies to:
 - 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 used to evangelize

Promoting the Marks

N-Mark



- Consumer-facing mark
- Shows where to touch another N-Mark to use NFC
- No cost to use, free license, available to everyone
- For use TODAY on smart posters, cards, labels, etc. using NFC Forum tags
- For use in 4Q 2010 as a touchpoint on devices certified by our members

NFC Forum Certification Mark



- Industry-facing mark
- Granted to products that complete NFC Forum certification
- For NFC Forum members only at this time
- Available 4Q 2010

Joining the NFC Forum Helps Move the Market

- Levels of membership

- Sponsor (Board of Directors)
- Principal (Voter)
- Associate
- Implementer
- Non-Profit



- Benefits

- Influence new technical work
- Get devices certified
- Ensure your business requirements are incorporated
- Interact with major global players for new business opportunities
- Be the first to hear about new developments, both technical and market
- Publicize your company and its products and services

Real Progress!

**NFC is on solid
ground...**

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

**Join us to invent the
future!**



NFC Forum

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

Questions?

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