NFC Goes Vertical: Introducing NFC Forum Special Interest Groups

January 24, 2013
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Today’s Speakers

Debbie Arnold
Director, NFC Forum

James Anderson
NFC Forum Vice-Chairman
Sr. VP, Mobile Development, MasterCard

Koichi Tagawa
NFC Forum Chairman
GM, Global Standards and Industry Relations, Sony Corp.
Today’s Speakers

Cameron Green
Director, Mobile Commerce and B2C, GS1

Stephan Copart
Project Manager, Fast Travel Program
Passenger Experience, IATA

Chuck Parker
Executive Director, Continua Health Alliance
Moving the Market
NFC’s Momentum is Building

Berg Insight
- 100 million NFC-enabled phones sold in 2012

ABI Research
- 102 million NFC handsets shipped in 2012
- 285 million NFC handsets shipping in 2013

Deloitte
- 300+ million NFC devices will be sold in 2013

Frost & Sullivan
- NFC will be the most-used solution for mobile payment by 2015 ($151.7B)

Gartner Research
- 50% of smartphones will have NFC capability by 2015

Juniper Research
- One in 4 US consumers will use NFC-enabled devices to pay for goods in-store by 2017
The Time is Right

- The NFC Forum is a global standards body working to develop and promote NFC.
- We have met major milestones in specifications and certification.
- NFC is a horizontal technology with unlimited use cases and electronic devices -- from phones to TVs to washing machines!
- No other organization is positioned to support market implementation efforts.
NFC Enables 3 Different Actions

**Card in a Phone**
Moves payment, event or ticketing information into a mobile phone
Store and redeem with a touch.
Get information back at the same time (coupons, receipts, warranties, loyalty points, etc)

**Reading Tags**
Enables mobile phones to read inexpensive tags that hold pertinent information
Examples include product comparisons, coupons, health care instructions, transit timetables

**Making Connections**
Enables devices to communicate with one another just by touching
Examples include connecting laptops and printers, sharing photos between a camera and TV, simple set up of Bluetooth and WiFi
Announcing Special Interest Groups (SIGs)

- Major NFC market opportunities today
  - Payment
  - Retail
  - Transport
  - Health Care
  - Consumer Electronics

- We plan to assemble more groups as partners and industries dictate
Understand the business and technical needs of each area and develop programs to support them

- Educational outreach on use cases, implementation issues, lessons learned
- Gather business requirements to drive new or modified technical work
- Find ways to speed or ease certification
Payment Special Interest Group

James Anderson
Why Payment?

- Payment has visibility in the market and is at the core of many use cases in other verticals.
- Payment is complex due to the business arrangements that need to be made and the number of players involved.
Payment Players

- Payment networks
- Acquirers and issuers
- Reader manufacturers
- MNOs
- OEMs
- TSM providers
- Smart card providers
- Vending machine
- Wallet providers
- Regulating bodies
How the NFC Forum Can Help

- Leverage our liaisons in the payment field
  - Work underway with EMVCo, PTCRB and GCF to streamline certification
  - Plans to develop educational programs with GSMA, the Smart Card Alliance, GlobalPlatform and the Mobey Forum
Payment Issues to Address

- Making payment the core of other value-added services in markets
  - Retail, transport and health care
- Ensuring consumers feel secure and understand benefits in using NFC-enabled phones for payment
- Addressing questions about NFC phones when used as readers
Potential Payment SIG Programs

- Face-to-face meeting with banks next quarter to facilitate implementation
- Consumer education regarding NFC vs. contactless payment
- White papers and events in collaboration with our partners
- More technical work to ensure our specifications meet market needs
- Communications to clarify security issues and solutions
Retail Special Interest Group

Debbie Arnold
Why Retail?

- Payment is at the core of retail but there are many other use cases for NFC and many more benefits for all parties.
Retail Use Cases

- **Marketing benefits**
  - Marketing and promotion, including smart posters
  - Brand campaigns and consumer analytics
  - Post-purchase consumer engagement (reviews, product sharing, etc.)
  - Possible way to store selections for purchase at later date

- **Operating benefits**
  - NFC as an enabler of pick & pack (automatic product ordering)
  - Improve velocity of check out (after customer selections made)
  - Bridging between physical products and online ordering
  - Inventory control: return authorizations for high-value goods
  - Employee time and attendance
  - Employee access control
Retail Use Cases for Consumers and Manufacturers

- Consumers
  - Speed and ease of payment
  - Coupons and loyalty
  - Receipts

- Manufacturers
  - Shelf/item tagging
  - Authentication and brand protection
  - Packaging
    - Nutritional information, expiry information, recall notifications
Potential Retail SIG Programs

- “Deep dive” this spring for retailers and banks on implementation issues
- White papers and events in collaboration with our partners
- Outreach to advertisers in particular
Leverage our liaisons in the retail field
- Plans to develop educational programs with the National Retail Federation, GS1, the Smart Card Alliance
- Work underway with GS1 to ensure mutual technology is supported
- Discussions underway with AIPIA, Digital Screen Association and others
GS1/NFC Forum MOU

Business-to-Consumer (B2C) collaboration for an enhanced consumer experience
GS1: A global system of standards

GS1 designs and implements a global system of supply chain standards

GS1 standards provide a framework that allows products, services, and information about them to move efficiently and securely for the benefit of businesses and the improvement of people’s lives, everyday, everywhere.
GS1 Source: a standard system for brand authorized product information
Synergy for B2C applications

• **Digital Coupons:**
  • GS1 Digital Coupon Identification could be accessed/passed via NFC

• **Product Information**
  • GS1 Product Identification could be accessed (smart shelf or poster) via NFC

• **Special Interest Group**
  • Update NFC NDEF standard with guidance on carrying GS1 Identification Keys (Digital Coupon and Product)
The Value of the Retail SIG to GS1

- GS1 Standards for product and coupon information are valuable to retailers and applications when exploring new ways to interact with consumers

- The Retail SIG will help GS1:
  - Educate our members and the retail industry about use cases for NFC
  - Meet key players in the NFC industry and help enable the retail sector to develop and implement open global standards

- GS1 will help the Retail SIG:
  - Ensure NFC technology includes interaction with GS1 standards
  - Identify new opportunities and ensure that standards-based technology can meet them
Transport Special Interest Group

Debbie Arnold
Why Transport?

- Contactless ticketing in transport is well-established in many markets
- Easy to build mobile on top of transport infrastructure
- Many more use cases outside of ticketing
NFC Transport Examples

- Touch an NFC tag with an NFC-enabled phone to download:
  - Checkin/out of a system
  - Transport timetables
  - Links to an up-to-date weather report website
  - Location-relevant map
  - Special discounted travel offers
  - Next bus arrival time
  - Taxi services
  - Emergency calls
  - Bike rental services
Benefits of NFC in Transport

- For Travelers
  - More convenient ticketing
  - A better, faster experience
  - Access to more travel information via NFC tags in smart posters

- For Operators
  - Increased traveler satisfaction
  - Improved throughput and shorter boarding times
  - New revenue streams from promotional opportunities
  - Reduced operating/maintenance costs as paper tickets eliminated
  - Additional services such as language settings, advertising and promotional opportunities, tourism information, loyalty schemes, and direct marketing
  - Improved risk management and fraud prevention
How the NFC Forum Can Help

- Bring together disparate industries
  - Rail
  - Bus
  - Automotive
  - Airline

- Leverage our liaisons in the transport field
  - Work underway with IATA
Transport SIG Programs

- Held our first extensive dialogue with airlines this past fall to help explain and solve implementation issues
  - More meetings planned
  - High level of engagement with IATA and its members
- White papers and events in collaboration with our partners
IATA

Stephan Copart
International Air Transport Association

- Established in 1945
- Approximately 240 airline members
- 84% of total air traffic
- 63 offices in 60 countries

Our **Mission** is to represent, lead and serve the airline industry

Our **Vision** is to be the force for value creation and innovation driving a safe, secure and profitable air transport industry that sustainably connects and enriches our world
The StB program's mission is to change the way the air transport industry operates - resulting in better service for passengers and lower costs for the industry.

**Simplifying the Business**

- E-freight
- BIP (Baggage Improvement Program)
- Fast Travel
- IATA e-services
- Passenger Facilitation
- New Distribution Capability
Passenger Experience & Fast Travel

Fast Travel Program
80% of Global passengers will be offered a complete suite of self-service options
Where NFC can benefit the passenger journey
IATA’s NFC Initiative

- Special stream under Fast Travel to cover NFC and Mobile Services
- IATA / GSMSA White Paper early 2011
- Specific Working Group
- Business Requirements and Use Cases under development in 6 main areas
The Value of the Transport SIG to IATA

- NFC has many use cases beyond ticketing in airports and for airlines and IATA members looking for help
- Three meetings to date have been very helpful to understand the use cases
- Next steps with the Transport SIG:
  Meeting this month to share our top use cases and get help on options to implement from NFC experts
- Working with us will help the Transport SIG:
  Get a deeper understanding of our use cases
  Identify new opportunities and ensure the technology can meet them
Health Care Special Interest Group
Health Care Use Case

**Measurement**
Health device with NFC functionality measures dairy working count

**Touch & Go**
Touch the health device on the mobile phone and transfer measured data

**Data Transfer**
Send measured data to Wellness Support Server via mobile phone network

**Online Service**
- Corresponding healthcare service available
- Show graph on the mobile phone

**Offline Viewer**

NFC-Enabled Health Devices

- Pedometer/Active Monitor
- Thermometer
- Glucose Meter
- Heart Rate Monitor
- BPM
- Weight Scale/Body Composition Monitor
Benefits of NFC in Health Care

- Intuitive User Interface
- Global Open Standard
- Low Power Consumption
- Broad Device Availability
- User ID
- Application Convergence
Continua Health Alliance

Chuck Parker
About Continua Health Alliance

- International non-profit industry organization enabling end-to-end, plug-and-play connectivity of personal health devices and services
- Publish Design Guidelines that combine and apply existing standards to facilitate interoperability of devices and services in personal connected health
- Transitioning the personal connected health marketplace to interoperability
- More than 200 member companies around the world, including technology, medical device and healthcare industry leaders and service providers

www.continuaalliance.org
Continua and NFC Forum Health Care SIG

- NFC is key enabling technology for “connected health”
- NFC delivers ease-of-use for remote patient monitoring
- Collaboration with the Health Care SIG will help:
  - Educate Continua members and the health care industry about the use cases for NFC
  - Network with key players in the industry and promote products and solutions for the health care market
  - Ensure NFC technology meets the highest standards for connected health devices and systems
- Continua will help the Health Care SIG:
  - Learn about the needs of the health care market
  - Identify new opportunities and applications of NFC technology in the personal connected health market
Consumer Electronics
Special Interest Group

Koichi Tagawa
This is an NFC Forum video of Koichi Tagawa, NFC Forum Chairman, on Consumer Electronics, that was shown in the live webcast. Link to video coming soon.
QUESTIONS?
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Thank You for Joining Us!