Sprint – BART
Transport Trial Overview

Hans Reisgies
Director, NFC Business Development
Enabling 3rd Generation Payment Technology

- Market Leading Contactless Readers for Point of Sale
- NFC Software Solutions for All Ecosystem Participants
- Transaction Software: Prepaid/Gift, Smart Posters, eCoupons

Serving Customers Worldwide

- Over 120 Employees Worldwide
- Headquarters: Silicon Valley
- Design Centers: Silicon Valley, New Delhi
- Support Centers: London, Singapore,
  Tokyo, Frankfurt

Experienced Team with Strong Backing

- VC’s: Draper Fischer Jurvetson, Alloy Ventures
- Key Investors: Nokia, Motorola, First Data, NCR, Citiban
Sprint, BART, Jack-In-the-Box Trial Objectives

- Integrate with Existing Commercial Systems
- Multiple Issuers/Segments Possible?
- User Management via Phone Only?
- Top-Up of ePurse and Online Cards Possible via Phone?

Scope of Trial

- Launch January 2008 thru May 2008
- Any Existing Sprint and BART EZ-Rider Invited
- 250 Consumers Switched Their Primary Phone to NFC Phone

Supporting Partners

- ViVOtech: NFC Software Technology Provider
- Samsung: NFC Phone Providers
- First Data Corporation: JIB Card Issuance and Top-Up Processing
- SpeedPay: BART Top-Up Transaction Processing
Sprint - Bay Area Rapid Transit (BART) NFC Trial
Bay Area Rapid Transit (BART)
- BART System based on MiFare card (ePurse style)
- Reuse of Existing BART Readers in Fare Gate System
- Users Register for Auto-Top Up via Phone UI

Jack-In-the-Box
- Jack-in-the-Box Stored Value Card based on MiFare (Online style)
- Jack-in-the-Box readers deployed by Card Associations
- Users Register for Top-Up on Demand on Website

Samsung a920 CDMA Phone
- NFC is not just for GSM world
- No SIM, No Problem with Embedded NXP SmartMX Secure Chip
- Single Wallet, Multiple Applications from Different Issuers
- User Initiates the Download of Cards from the phone (not the web)

And…
Latest Trial: Sprint/BART/JIB Trial
Full OTA Provisioning or Transit and Merchant Cards

1. Tap your phone on “Find Your Burger” NFC Poster at the Powell BART Station in San Francisco

2. Get directions to the nearest Jack in the Box on your phone screen

3. Pay for your meal with your Jack CA$H prepaid card on ViVOpay readers

Click the link below to view coverage from local TV stations:
http://cbs5.com/video/?id=30620@kpix.dayport.com
ViVOtech ‘Firsts’ in Piloting NFC Globally

First Australian NFC Mobile Phone Payment Pilot - December, 2008
First in-the-Nation NFC Mobile Payment Trial for Transit & Food - January, 2008

First NFC Wallet Solution with Biometric Control - June, 2007
First e-Purse NFC Mobile Phone Solution with Top-Up using Branded Cards - Sept, 2007

First OTA Solution to Support Both Credit and Debit - January, 2007
First OTA Solution to Support Both Coupons and Payments - February, 2007

Only Supplier in Both Visa Wave and MSD NFC Pilots

Participating in Most NFC Payment Trials to Date
Commercialization Will Drive Huge Rewards
...But Will Not Come Easily

Four Commercialization Threshold Factors:

1. Mass deployment of Contactless Card Infrastructure
   - Issuance and Acceptance
   - Payments and/or Transportation

2. The merger of ecosystems with unrelated expertise

3. A collaborative business model based on compelling applications

4. Deployment and integration of the right technology architecture
Danke!

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Director, NFC Business Development
Illustration of A Service That Will drive the Business Model – Smart Poster

1. Customer Taps NFC Smart Poster at Retailer

2. Consumer and Tag ID info sent to Back-End

3. Marketing server issues personalized promotions to phone based on location, interest and personal profile.

Review all promotions
Solutions That Enable 3rd Generation Payment & Marketing Ecosystems
Recent ETSI Vote:
- Allows for all secure storage options
- Defines Standard HCI without Proprietary OEM Commands

Best UICC SIM + NFC Phone with:
- New ETSI HCI (*pending approval from NFC Forum*)
- MasterCard/Visa Certification
- MiFare (*licensing from NXP/Infineon*)
- MISD with Adjustable Memory Size (*GP 2.2, A/B/C/D*)
- Expected commercial availability: **Q3-2009**

Choose OTA Solution that Supports All Storage Options
- Embedded Chip: **Fall 2008** (*Launch Transit, Bus, Payment, Coupon*)
- Hybrid: **Spring 2009** (*HCI/SWP Phones will be ready before SIMs*)
- UICC: **Fall 2009** (*Full Support with Pricing Leverage*)