

Guiding Principles for Next Generation Mobile Payments

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Federal Reserve Perspective on Mobile Payments

- Fed objective is to ensure safety and soundness of U.S. payment system
- Mobile phone is a payment and banking channel and interacts with other payment channels
- Non-banks are involved in mobile payments, but are unfamiliar with bank/payment regulations
- Fed involvement in mobile industry dialogue helps us understand impact of mobile initiatives to the payment system and to consumers
- Also helps identify potential gaps in regulatory oversight

Drivers of Growth in U.S. for NFC Mobile Payments

- Increase in smartphone adoption
 - Increase in mobile purchases (even if not NFC) that build consumer experience and create demand
 - PayPal mobile transactions increased 500% in 2011 over 2010
 - Google mobile shopping searches increased 220% in 2011 over 2010
 - Convergence of online, mobile and POS channels creates opportunity to use NFC with other mobile technologies
 - Google and Isis NFC wallets
 - Visa/MasterCard mandate for EMV/Chip+Pin in U.S.
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Mobile Payments Industry Workgroup (MPIW) Update

- Objective to determine what is needed to implement a successful retail mobile platform in the U.S.; what the impacts on other payment options (cash, debit, credit card, ACH) will be, and what potential risks might need to be addressed
- MPIW represents mobile carriers, large banks, credit card networks, merchants, payment processors, online payment providers, mobile solution vendors, handset and chip makers, bank, merchant and telecom trade groups, U.S. Treasury and the Fed

MPIW Update

- Discussion of opportunities, barriers and challenges to mobile payments adoption at retail POS led to identifying several key principles that the group collectively agreed were needed to ensure a successful implementation of retail mobile payments in the U.S.
- Since publishing the white paper in March of 2011, these **seven** principles have, for the most part, remained consistent, even with changes in technology and business approaches

Open mobile wallet that supports multiple payment options

- True open wallet doesn't exist yet but if it did it would:
 - Be ubiquitous, allowing complete access by everyone and usable at most merchant locations, in transit, etc.
 - Allow customers to load all payment cards, other payment methods (ACH, prepaid), and loyalty products
 - Current wallet partnerships (Google, Isis) testing business models and collaboration but not really open yet
 - Planned availability of more NFC enabled phones in 2012 will help
 - Challenges
 - How to handle multiple wallet offerings, wallets within wallets
 - Movement of data securely between wallets
 - How many mobile wallets will consumers and merchants accept?
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Support NFC for POS Contactless Mobile Payments

- NFC is still the focus
 - But recognize other mobile technologies may co-exist with NFC
 - Merchant specific – some merchants looking at alternatives such as Cloud, 2D/QR barcode applications
 - Some providers are hedging bets with both NFC and Cloud
 - Challenges
 - Multiple NFC approaches – will one win out or can all survive?
 - Which NFC platform (embedded NFC chip, SIM card, microSD chip) will succeed?
 - Which is safer, less costly, more convenient to consumer?
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Build on existing clearing and settlement channels

- Credit, debit, ACH, and prepaid channels are well-protected
- Good foundation to start with, but not intended to exclude new channels
- So far, wallets evolving are using some of these channels
- Direct carrier billing to wireless phone is new channel
- Retail merchant mobile payment network under development also new – uncertain how it will work

Dynamic Data Authentication to Enhance Security

- Will prevent mobile fraud at POS and deter counterfeiting and skimming, making capture of ID information useless to fraudster
- Generates unique payment identifier or cryptogram for each card-based transaction, unique to that transaction's mobile phone
- Goes hand in hand with recent EMV (chip + Pin or chip only) mandate by credit card networks for U.S.
- Expect other security tools and controls to be implemented as well

Based on Global Standards and an Industry Certification Process

- Standards must be developed to ensure domestic & global interoperability of technology, processes and security
- Several mobile, NFC and payments standards groups are looking at mobile payments for U.S., but efforts are fragmented
- This needs to be coordinated, sooner rather than later
- Opportunity to let industry set direction
- Fed/MPIW can help to coordinate the mobile standards and best practices initiatives

Regulatory Clarity to Avoid Gaps in Oversight and Protection between Agencies

- MPIW met with bank regulators, FTC, and FCC on April 24, 2012 to discuss **regulatory clarity**, not specific regulation
 - Primary concerns were consumer protection, privacy and data security
 - Emphasized consumer ‘awareness before engagement’
 - Important for non-banks and new companies offering mobile services to understand how to protect consumers, but for now banks still liable
 - **General consensus - still too early in mobile payments evolution to regulate**
 - Will focus on education and communication between industry and agencies
 - Industry stakeholders want to be involved, in the loop, when need for mobile regulation arises
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TSM (Trusted Service Manager) to Oversee Security and Account Management Functions

- Initially TSM in U.S. should be intermediary between banks, mobile carriers and service providers to manage and provision account credentials to the secure element in the mobile wallet
- First Data and Gemalto are TSMs for Google and Isis
- TSM is a new role in U.S. for mobile payments so needs to evolve
- Future TSM(s) could perform other functions, such as certifying mobile applications for the wallet, clearinghouse for customer service issues, overseeing security and interoperability standards and business rules, etc.

Fed/MPIW Status - 2012

- Fed, MPIW, and other mobile industry experts testified at House and Senate hearings in March, 2012
- Fed will publish report on *NFC/Cloud Security Issues* later this year based on discussions with MPIW in 2011 and update *Mobile Payments Landscape* whitepaper
- Fall 2012 MPIW meeting will include session with merchants and possibly mobile start-ups
- MPIW and Fed will continue dialogue with regulators to clarify oversight responsibilities, help create regulatory guidelines for security and privacy; and work on developing business standards and best practices