Mobile Banking: Boldly Go “WNOHGB”

Regional & Community Bankers Conference

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Discussion Topics

- Some Definitions
- The Mobile Landscape
- Why Offer Mobile Banking Services?
- Risks and Regulations
- What the Future Holds
- Your Mobile Banking Strategy
Mobile Banking Definitions

Mobile Banking:
- Use of mobile device to connect to a financial institution to conduct customer self-service (CCS).
- Includes viewing account balances, transferring funds between accounts, paying bills or receiving account alerts.

Mobile Payments:
- Use of a mobile device to make a purchase or other payment-related transaction.
- Payments initiated in physical or virtual worlds, and can be conducted via SMS, MMS, mobile Internet, downloadable application, and NFC chips.

Mobile Banking Definitions

**Mobile Commerce**
- Extends e-commerce to mobile devices to buy and sell goods and services.
- Includes use of handheld devices such as cellular phones or personal digital assistants (PDAs).

**Mobile Wallet**
- A secure location on a mobile device to store information and make payments from multiple credit, debit, membership or loyalty cards, and any other current forms of card-type transactions.
- Wallet can store multiple addresses for delivery purposes.
- Information is typically protected by a PIN, code or token.

U.S. Mobile Banking Landscape

- All large banks, most regionals, and many mid-tier FIs now offer mobile banking services
- There is little real “hard” usage data
  - Most FIs limit announcements to percent of online users
- Offering browser-based services that mimic home-banking functions is most common, except among largest banks
- Functions offered are chiefly information-based
  - e.g., branch & ATM locators, transaction history, balance inquiries
- Payments are “phase 2” services
  - Remittances appear to be an area of new opportunity
- Finding a ROI model is difficult
  - FIs offering mobile services appear to be absorbing the expense for strategic reasons
Building Blocks of Mobile Banking & Payment Services

- Proximity Mobile Payments
- NFC Card Equivalent
- Remote Mobile Payments
- P2P (Person to Person Payments)
- Advanced Features of Mobile Banking
- Basic Mobile Banking
- Online Banking

Opportunities for revenue generation

- US current position
- Security and regulation essential to move forward
WHY OFFER MOBILE BANKING SERVICES?
U.S. Mobile Phone Population Shows Steady Growth

Mobile Phone Subscribers as a Percentage of Total U.S. Population

<table>
<thead>
<tr>
<th>Year</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
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<tbody>
<tr>
<td>%</td>
<td>61%</td>
<td>65%</td>
<td>70%</td>
<td>75%</td>
<td>80%</td>
<td>93%</td>
<td>95%</td>
<td>96%</td>
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</table>

Source: Celent, Sept. 2008
Value Propositions for FIs

• Attract a growing number of younger consumers, as well as remittance and underbanked market segments
• Use the mobile phone (etc.) as an authentication device
• Keep up with the Joneses – maintain competitive position relative to larger FIs
• “Create a new user experience” – offering a new value proposition to customers
• Ability to move to fee-generating services
  ➢ Payments
  ➢ Real-time information

“If all we do is replicate Internet banking on this mobile device, it will just be yet another cost to the financial institution.” Tripp Rackley, CEO, Firethorn
An Illustration . . .
Financial Institutions Business Model

- **Growth in mobile payments sector**
- **Relationships with MNO through an integrated approach.**

**Objectives**
- **Customer retention and new segments**
- **Reduce operational costs.**
- **Deliver new products and services**
- **Customer awareness and convenience**

**Opportunities for growth**
- **View mobile banking as a new channel to create customer value**

**Concerns**
- Managing fraud and payment risk
- Handling compliance and regulation

**Industry Competition**
- **Rising industry competition**
- **Online banking is already consolidated, differentiation is key**
- **Customer retention**
- **Branding**

**Revenue**
- **New product development and services**
- **Online banking reach limited**
- **Mobile payments will bring revenue in the long-term**

Source: Boston Federal Reserve
<table>
<thead>
<tr>
<th>Year</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
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<tr>
<td></td>
<td>Wells Fargo</td>
<td>Bancorp South</td>
<td>PSCU Financial Services</td>
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<tr>
<td></td>
<td>350,000-550,000 users</td>
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<td>2006</td>
<td>Wachovia</td>
<td>Citibank</td>
<td>Washington Mutual</td>
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<td>175,000-225,000 users</td>
<td>20,000 users</td>
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<td></td>
<td>Bank of America</td>
<td></td>
<td>U.S. Bank</td>
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<td>1 million+ users</td>
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<td>1 million+ users</td>
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<tr>
<td></td>
<td>JP Morgan Chase</td>
<td></td>
<td>HSBC (USA)</td>
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<td>15,000-90,000 users</td>
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<tr>
<td></td>
<td>SunTrust</td>
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<td>America First CU</td>
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</table>

Source: RBI, Crone Consulting estimates, June 2008
Mobile Banking Features Offered To Consumers By U.S. FIs

Check Balances (Savings, DDA) 100%
View Recent (Savings, DDA)(Tran) 100%
View Any Other Account 91%
Move Funds Between Accounts 91%
Check Balances (Credit Card) 87%
View Recent Credit Card (Tran) 83%
Pay Bills 70%
ATM/Branch Locator 57%
Transfer funds to others 48%
SMS/Text Alerts 43%
View Current Rates 39%
Transfer funds between FI 17%
Open Account 17%

Basic Functions
Intermediate Functions
Opportunities for Improvement

January 2008, n=23

Mobile Banking Profile – Bank of America Example

**Snapshot**

- **Access Platform:** WAP/Browser
- **Launch Date:** March 2008
- **Handset:** All mobile devices internet enabled
- **Carriers:** Not carrier dependent
- **Vendor:** In-house Implementation
- **Functions:** View account balance, review transactions, pay bills, transfer funds

**Mobile Banking “Success”**

- “> 4 Mn M.B. customer sessions (May 2008)
- 224,000 activations reaching 840,000 active customers.
- Customer Base:
  - Two-thirds are under 35 years old
  - Four out of five under 45
Corporates Look for Other Services

**Today**
- Alerts
- Balance and account data
- Payment transaction history

**Future – Static Features**
- Viewing check images
- Balance reporting

**Future -- Interactive Features**
- Customer self-service
- Positive pay tools
- Payment initiation with approval functions
- Investments

Source: Celent, NACHA teleseminar, Mobile Banking Way Stations, Sept. 2008
Risks & Regulations
Risks and Barriers to Mobile Banking

- Carrier/vendor technologies incompatible, lack standards
- Business models not yet standard
- Complexity using device
  - Entering passwords, commands difficult
  - Applications can be tricky on handset
- Customer ownership unresolved
  - Bank or carrier?
  - Responsibility for customer service, fraud prevention, billing
  - Revenue sharing
- Regulation emerging – liability issues unresolved
- Security
  - Authentication and Fraud, especially cross-channel
  - Lost/stolen phones
  - Secure access via wireless network
- Customer demand – is it there? Will it be?
Will Regulatory Issues Impede Growth in Mobile Banking?

- Numerous regulatory agencies touch payments and/or wireless transactions
  - e.g., Federal Reserve, FTC, FCC, SEC, NACHA, FDIC, OTC, OCC, NCUA
- No legal framework specific to mobile banking today
- Financial services’ and telecoms’ regulations differ significantly
  - Telecoms have limited liability
- Cost of regulatory compliance may be too high
  - e.g., KYC, BSA/AML, state MSB licenses
- Mismatch between potential regulatory requirements and mobile payment standards
  - Participants might take “wait and see” approach
Possible Oversight / Regulatory Requirements

- Mobile banking services should be ubiquitous – fair access for all consumer segments
- Interoperability among networks and handsets
- Protect against unauthorized transfer of funds at any point in the process
- Establish grievance procedures
- Ensure customer data privacy
- Identify recourse for technical failures
- Customer Notification - Provide adequate and timely disclosure of risks, responsibilities and liabilities of mobile transactions to customers
- Ensure security requirements met for authentication
Outlook
Outlook

• More FIs will offer mobile banking -- with continuing evolution and enhancement of services offered
  • Businesses will adopt mobile banking services more readily
  • Payments (especially for bill pay) and NFC will be levers for value-added, priced services
  • International remittances will foster mobile payment transfer offerings … at least by selected (larger) FIs
  • Cell phone will act as “authentication device”
• Vendors will continue to consolidate
  • Alliances of top FIs and carriers, vendors, or other third parties will proliferate
• U.S. market will follow other markets in the near future
• The market will be driven by standards and technology – carriers remain a wildcard
Developing Your Mobile Banking Strategy
Four Steps to Determine your Financial Institution’s Mobile Banking Strategy

Step 1: Identify your customer base
- Demographics
- Desired mobile banking functions
- Preferred mobile access platforms

Step 2: Define your mobile strategy
- Budgeting
  - Implementation
  - Infrastructure
  - Support
- Mobile Banking
  - In-House vs vendor
  - Long-term vs short-term investment

Step 3: Choose an access solution
- SMS
- WAP
- Downloadable/Embedded Application

Step 4: Select a vendor
- Different packages
- Implementation costs
- Vendors target your specific type of FI
- Vendors aligned with your mobile banking strategy
