Mobile Banking & Payments Forum

What’s taking place in New England

September 10, 2014
Today’s Agenda

9:30 – 10:00  The Mobile Landscape
   Marianne Crowe, Federal Reserve Bank of Boston

10:00 – 10:15  The 2014 Mobile Banking & Payments Survey
   Breffni McGuire, NEACH

10:15 – 11:00  Findings from NE Credit Unions
   Breffni McGuire, NEACH

11:00 – 11:15  Break

11:15 – 12:00  Findings from NE Banks
   Marianne Crowe, Federal Reserve Bank of Boston
2014 Mobile Banking and Payments Survey

Credit Union Data

Breffni McGuire, NEACH
Survey history

- 2008 – Comprehensive mobile banking survey
- 2010 – “Mini survey” questionnaire – focus on service adoption
- 2011 – 2nd Mini survey
- 2012/2013 – Focus on mobile banking & payments survey
  - FRBB “bank” survey, EOY 2013
  - “NEACH “Credit Union” survey, Jan 2013
- August 2014 – Updates previous survey & adds new questions in key areas

* Four Federal Reserve Banks participated *
Methodology

- Survey developed and distributed by
  - Federal Reserve Bank of Boston
  - NEACH
- Survey open from July 17 to August 15, 2014
- Institutions completed the survey online or sent responses for manual input by the FRBB
Survey results: respondents by type

- 176 financial institutions across New England completed the survey
  - 107 banks
  - 69 credit unions
Survey results: respondents by location

<table>
<thead>
<tr>
<th>State</th>
<th>Banks</th>
<th>Credit Unions</th>
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</thead>
<tbody>
<tr>
<td></td>
<td># of respondents</td>
<td>State Total</td>
</tr>
<tr>
<td>CT</td>
<td>9</td>
<td>45</td>
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<tr>
<td>MA</td>
<td>63</td>
<td>149</td>
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<tr>
<td>ME</td>
<td>11</td>
<td>28</td>
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<tr>
<td>NH</td>
<td>14</td>
<td>20</td>
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<tr>
<td>RI</td>
<td>2</td>
<td>10</td>
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<tr>
<td>VT</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Total</td>
<td>107*</td>
<td>265</td>
</tr>
</tbody>
</table>

*Total number of respondents includes one bank in NJ
Source: State total data FDIC and NCUA, June 2014
Survey results: respondents by asset size

- Over $100M: 17% (Banks: 5%, Credit Unions: 12%)
- $100M to $500M: 31% (Banks: 16%, Credit Unions: 15%)
- $500M to $1B: 12% (Banks: 2%, Credit Unions: 10%)
- Over $1B: 14% (Banks: 3%, Credit Unions: 11%)
Survey results: 74% were CEO or C-level

Q4: Contact title  N=168
2014 Mobile Banking and Payments Survey

Credit Union Findings
Demographics
47% of respondents were EVPs or above: high response from VPs, Managers

Please select the title that closely approximates yours; N=66
Almost 50% of respondents are in Operations area.

Q5. Functional Area of Contact  N=55

- Executive Leadership: 16.4%
- Management: 12.7%
- Finance or Accounting: 7.3%
- Operations: 41.8%
- Compliance, Audit, or Legal: 5.5%
- IT: 5.5%
- Line of business: 5.5%
- Branch: 3.6%
- All: 1.8%

Operations and finance include management and staff positions.
3 individuals selected 'all'.
Respondents’ location doesn’t correlate to number of credit unions by state

Maine, New Hampshire, Vermont are over-represented

<table>
<thead>
<tr>
<th>State</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Connecticut</td>
<td>13.2%</td>
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<tr>
<td>Maine</td>
<td>35.3%</td>
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<tr>
<td>Massachusetts</td>
<td>30.9%</td>
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<tr>
<td>New Hampshire</td>
<td>18.2%</td>
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<tr>
<td>Rhode Island</td>
<td>5.9%</td>
</tr>
<tr>
<td>Vermont</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

Q7 Corporate Address  N=68
85% of credit union respondents have fewer than $500 million in assets

Q8. What is your FI’s asset size?  N=69
Mobile Banking

Credit Union Results
Credit unions offering mobile banking increased from 68% to 75% in 2014

- Within the past year: 16%
- More than one year ago: 59%
- Currently not offering mobile banking, but plan to offer within next 1-2 years: 13%
- Do not plan to offer mobile banking: 12%

Q11. When did you start offering mobile banking to your customers? (Check ONE)  N=69
Credit unions provide services to many different entities – business & non-profit...

71% provide services to non-consumer entities

- Consumers: 100%
- Small Businesses: 67%
- Not-for-profit organizations: 55%
- Corporate/Commercial Entities: 28%
- Educational institutions: 15%
- Government: 7%

Q10. Please indicate to whom you provide services. (Check ALL that apply) N=69
Respondents evidence a move away from ‘triple play’ to mobile app & other platforms

In 2013: triple play was 62%; mobile app, 27%; mobile website, 29% & text messaging, 12.5%

Q12. What mobile banking technology platform do you (plan to) use? (Select ALL that apply)  N=60
Google & Apple surge; Blackberry drops 10 percent from 2013 – 16% & 14%, respectively

**Blackberry dropped 10%; Microsoft rose 2%**

- Google Android: 98%
- Apple iOS: 98%
- Microsoft Windows phone: 40%
- Blackberry: 32%
- Other: 5%

Q13. Which of these mobile operating systems does or will your mobile banking application support? (Select ALL that apply) N=60
Credit unions rapidly adopt tablets for mobile banking services

**NEW**

**iPad pushes ahead in tablet offerings**

- **iPad**: 91%
- **Android**: 85%
- **Kindle**: 35%
- **Other**: 6%

Q14. Do you (plan to) offer mobile banking services via a tablet-specific application? (Check ALL that apply) N=54
Credit unions rely on specialized vendors for mobile banking systems

Q15. What company provides or will provide your mobile banking system? n=60

- Access Softek: 35%
- ACI Worldwide: 17%
- Fiserv: 12%
- Digital Insight: 8%
- Jack Henry: 5%
- FIS: 3%
- Other: 20%
## Checklist of credit union offerings

<table>
<thead>
<tr>
<th>Service</th>
<th>Currently offer</th>
<th>Plan to offer</th>
<th>No plans to offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check balances (DDA, Savings), N=61</td>
<td>52 (85%)</td>
<td>9 (15%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>View statements and transaction history (DDA, Savings), N=59</td>
<td>47 (80%)</td>
<td>10 (17%)</td>
<td>2 (3%)</td>
</tr>
<tr>
<td>View credit card balances, statements and transaction history, N=55</td>
<td>14 (25%)</td>
<td>14 (25%)</td>
<td>27 (49%)</td>
</tr>
<tr>
<td>Check prepaid card/account balances, N=53</td>
<td>2 (4%)</td>
<td>5 (9%)</td>
<td>46 (87%)</td>
</tr>
<tr>
<td>View prepaid card/account balances and transaction history, N=53</td>
<td>2 (4%)</td>
<td>5 (9%)</td>
<td>46 (87%)</td>
</tr>
<tr>
<td>Bill payment, N=57</td>
<td>41 (72%)</td>
<td>16 (28%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Bill presentment, N=52</td>
<td>13 (25%)</td>
<td>11 (21%)</td>
<td>28 (54%)</td>
</tr>
<tr>
<td>Transfer funds between same owner’s accounts within same FI, N=60</td>
<td>51 (85%)</td>
<td>9 (15%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Transfer funds between same owner’s accounts at different FIs, N=54</td>
<td>13 (24%)</td>
<td>22 (41%)</td>
<td>19 (35%)</td>
</tr>
<tr>
<td>Mobile person-to-person money transfer, N=54</td>
<td>10 (19%)</td>
<td>23 (43%)</td>
<td>21 (39%)</td>
</tr>
<tr>
<td>Mobile remote deposit capture, N=59</td>
<td>30 (51%)</td>
<td>24 (41%)</td>
<td>5 (8%)</td>
</tr>
<tr>
<td>Stop payment request, N=54</td>
<td>11 (20%)</td>
<td>10 (19%)</td>
<td>33 (61%)</td>
</tr>
<tr>
<td>Account address change, N=54</td>
<td>7 (13%)</td>
<td>9 (17%)</td>
<td>38 (70%)</td>
</tr>
<tr>
<td>Check reorder, N=54</td>
<td>10 (19%)</td>
<td>11 (20%)</td>
<td>33 (61%)</td>
</tr>
<tr>
<td>ATM/branch locator, N=59</td>
<td>45 (76%)</td>
<td>8 (14%)</td>
<td>6 (10%)</td>
</tr>
<tr>
<td>Personal financial management, N=55</td>
<td>12 (22%)</td>
<td>12 (22%)</td>
<td>31 (56%)</td>
</tr>
<tr>
<td>Access to brokerage services, N=53</td>
<td>0 (0%)</td>
<td>1 (2%)</td>
<td>52 (98%)</td>
</tr>
<tr>
<td>International remittances, N=53</td>
<td>0 (0%)</td>
<td>1 (2%)</td>
<td>52 (98%)</td>
</tr>
</tbody>
</table>

Q16. Which of the following mobile banking services do you currently offer or plan to offer?
Services implemented by more than 50% of credit unions – mRDC squeaks in

- Mobile RDC: 51%
- ATM/Branch locator: 76%
- Bill payment: 72%
- View statements / transaction history: 80%
- Transfer funds among accts, single owner: 85%
- Check balances: 85%
Credit unions say ‘no’ to 5 mobile services

- **International remittances**: 98% plan to offer
- **Access to brokerage services**: 98% plan to offer
- **View prepaid/account balances**: 87% plan to offer
- **Check, prepaid - account balances**: 87% plan to offer
- **Account address change**: 70% plan to offer

0% 50% 100%

Plan to Offer

Offer

No plans to offer
Single login and mobile enrollment becoming mainstream

Credit unions offer features unique to mobile channel

**NEW**

- Single login/authentication credentials for online and mobile services: 79%
- Enroll for mobile banking using a mobile device (mobile enrollment): 71%
- Open accounts over mobile device: 32%
- Mobile banking products targeted to the underbanked: 14%
- Bilingual mobile website or app: 7%

Q17. Do you (plan to) offer the following features? (Check ALL that apply)  N=56
Credit unions concentrate on standard, high-impact alerts – 2 warnings, 2 advices

A sea change in alert growth from 2013 ...

- Insufficient funds: A rise of 37% (90%)
- Low balance: A rise of 31% (88%)
- Bill pay: Rose from 12% (77%)
- Funds transfer completed: A rise of 33% (75%)
- Two-way actionable text alerts: 21%
- Card not present transaction: 17%
- Credit card balance close to or over limit: 17%
- Other: 4%

Q18. What types of mobile alerts do you (plan to) offer? (Check ALL that apply)  N=48
Customer behavior and data breaches are new major security concerns

‘Identify theft’ fell 13% from 2013

**NEW**

- Inadequate customer protection behavior: 56%
- Identity theft: 53%
- Data breach: 51%
- Malware/viruses: 44%
- Mobile spoofing: 39%
- Use of unsecured network: 38%
- Insufficient authentication: 13%

Q19. Please select your FI's TOP THREE security related issues or concerns associated with mobile banking. (Check THREE only)  N=61
Five tools are used broadly to increase mobile security

- Multi-factor authentication: 79%
- Time-out due to inactivity: 77%
- Mobile device ID: 52%
- Mobile notifications: 48%
- Encryption: 48%
- Out-of-band authentication: 27%
- Geo-location: 14%
- Tokenization: 4%
- Biometrics: 4%
- Other: 2%

Q20. Which of the following does your FI currently use or plan to use to enhance mobile security? (Check ALL that apply) N=56
Credit unions recognize need for new members ... leading with mobile channel

Attracting new members and being market leader with technology each rose 10 percent from last year – Retaining members sank from 1st to 3rd!

Q21. If you (plan to) offer mobile banking, what is your primary business reason? (Check only ONE)  N=57

No credit union chose “increase revenue” as a primary reason for offering mobile banking
But mobile banking is seen as key benefit in retaining members – and gaining volume.

**Improved efficiency and reduced operation costs provide twin benefits**

- Customer retention: 70%
- Improved efficiency: 42%
- Increased transaction volume: 32%
- Reduced operational costs: 20%
- Currently do not offer mobile banking: 15%
- No benefits: 9%
- Other: 3%

Q22. What business benefits have you achieved since offering mobile banking? (Check ALL that apply) N=59
Credit unions use website and branches to promote mobile banking

Reliance on other apps/websites fell 20% YOY; paper falling out of favor

- Promote on your own website: 95%
- Branch signage and brochures: 92%
- Social media marketing: 63%
- Direct mail/statement stuffers: 58%
- Email/phone calls to existing customers: 46%
- Radio, TV, print ads: 36%
- Banner ads on other mobile apps/websites: 31%
- Other: 10%

Q23. How do you (plan to) market your mobile banking services? (Check ALL that apply)  N=59
Consumer adoption, as well as enrollment, is substantially higher than previously.

(Rollout and) adoption picking up over time; moving out of <5%

Q24. What percentage of your retail customers have used your mobile banking services? n=51

Members enrolled in mobile banking
Active mobile banking users

Percent range of members using mobile banking

Less than 5% 5% to 20% 21% to 50% Over 50%

- 26% 31%
- 42% 51%
- 30% 12%
- 2% 6%
Business enrollment and adoption, too, is substantially higher than previously.

Many credit unions do not have business members; those CUs offering to businesses have done so more recently.

Q27. What percentage of your commercial customers have used your mobile banking services? N=29
And credit unions are offering more focused mobile services to business members

In 2013, 53% of CUs were offering the same mobile services to all members

Q26. What additional mobile banking services do you (plan to) offer your commercial customers? (Check ALL that apply)  N=32
Security issues & member need/awareness of mobile channel inhibiting adoptions

- **Security concerns**: 75%
- **Customers' banking needs met thru other channels**: 73%
- **Lack of customer awareness**: 64%
- **Phone screen size**: 32%
- **App is not user-friendly**: 9%
- **Login process complicated**: 7%
- **Other**: 4%

Q25. What are the THREE most common reasons you believe are preventing greater customer adoption of mobile banking? (Check THREE only)  N=56
Mobile banking remains a free service

Q28. Do you (plan to) charge a fee for any mobile banking services?  N=61
Q29. Please indicate ALL services for which you (plan to) charge a fee. (Check ALL that apply)  N=5
8 credit unions DO NOT plan to offer mobile banking – for a variety of reasons

Here’s why:

- 5 credit unions cite lack of member demand
  - Ranking it 1st, 2nd, 3rd, 4th (1, 1, 2, 1 respectively)
- 4 cite security concerns – ranked #1 by 2 credit unions
- 3 respondents perceive regulatory issues as a major problem – ranked #2 by 2 credit unions
- Of the 3 institutions that selected lack of ROI/business case, 1 ranked this in 2nd place
- 2 credit unions chose expense/cost as their number 1 barrier
- 2 credit unions gave a nod (#5) to lack of cell phone coverage

Q30. Please RANK the items that influenced your decision not to offer mobile banking services. Please rank them from 1 to 7 in order of importance with 1 as the most important. N=6
Mobile Payments

Credit Union data
Mobile payment services are still ‘on the horizon’ for most credit unions

“Plan to offer” and “No plans to offer” ‘switched places’ in 18 months!

- Yes, offered within the past year: 1%
- Yes, offered more than one year ago: 4%
- No, currently not offering mobile payment services, but plan to offer within next 1-2 years: 55%
- No, do not plan to offer mobile payment services: 39%

Q31. Do you (plan to) offer mobile payment services to your customers? (Check ONE) N=69
Respondents’ choice solidifying around partnering with a third party provider

Partnering is the go-to-market strategy for mobile payments

- Partner with a third party provider: 82%
- Partner with a digital wallet/mobile solution provider: 26%
- Partner with a card network: 18%
- Partner with a NFC-enabled wallet provider: 5%
- Partner with retailers to offer rewards/coupons: 3%
- Other: 5%

Q32. How do you (plan to) offer mobile payment services? (Check ALL that apply) N=38
Where known, respondents’ interest is with wallet provider partnership

**Linkage with NFC solution provider is dominant 2\(^{nd}\) choice; QR code ranks 3\(^{rd}\)**

<table>
<thead>
<tr>
<th>Service</th>
<th>1 (Most Important)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 (Least Important)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Link to mobile NFC solution provider</td>
<td>8%</td>
<td>60%</td>
<td>24%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Link to provider using QR code</td>
<td>12%</td>
<td>40%</td>
<td>24%</td>
<td>12%</td>
<td></td>
</tr>
<tr>
<td>Partner with merchant</td>
<td>22%</td>
<td>13%</td>
<td>4%</td>
<td>48%</td>
<td>13%</td>
</tr>
<tr>
<td>Partner white label mobile wallet provider</td>
<td>56%</td>
<td>15%</td>
<td>22%</td>
<td>4%</td>
<td>4%</td>
</tr>
</tbody>
</table>

**Q33. Please RANK the mobile payment services below based on your perception of the value of offering them as part of your mobile banking app. Please rank them from 1 to 5 in order of importance with 1 as the most important. n=30**
Gaining new members tops payment priorities; competition plays important role

A strong endorsement of ‘payments’ as way to attract (younger) members

- Attract new customers: 33%
- Competitive pressure: 28%
- Be market leader with technology: 23%
- Retain existing customers: 13%
- Increase revenue: 3%
- Other: 3%

Q34. If you (plan to) offer mobile payment services, what is your primary business reason? (Check only ONE)  N=40
Security is key credit union issue for m-purchases

Q35. Which barriers do you see to offering mobile payments for purchases? (Check ALL that apply) N=40

- Security concerns: 90%
- Market still immature/fragmented: 60%
- Inadequate/not broadly implemented security tools: 38%
- Lack sufficient expertise to make informed decision: 30%
- Limited value of mobile payments for purchases: 23%
- Other: 3%
**NEW**

Barriers to offering mobile payments underscore importance of member demand

*Regulatory issues and security are clear 2\textsuperscript{nd}, 3\textsuperscript{rd} choices*

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<thead>
<tr>
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<th>1 (Most important)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8 (Least important)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of customer demand</td>
<td>36%</td>
<td>14%</td>
<td>9%</td>
<td>14%</td>
<td>5%</td>
<td>9%</td>
<td>9%</td>
<td>5%</td>
</tr>
<tr>
<td>Lack of standards and interoperability</td>
<td>28%</td>
<td>17%</td>
<td>6%</td>
<td>33%</td>
<td>6%</td>
<td>11%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security concerns</td>
<td>20%</td>
<td>30%</td>
<td>35%</td>
<td>10%</td>
<td>5%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Lack of consistent, reliable cell coverage</td>
<td>6%</td>
<td>6%</td>
<td>22%</td>
<td>6%</td>
<td>17%</td>
<td>33%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Limited value or benefit</td>
<td>5%</td>
<td>11%</td>
<td>21%</td>
<td>26%</td>
<td>16%</td>
<td>16%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Regulatory issues</td>
<td>5%</td>
<td>32%</td>
<td>16%</td>
<td>21%</td>
<td>5%</td>
<td>21%</td>
<td></td>
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<tr>
<td>ROI/Lack of business case</td>
<td>5%</td>
<td>15%</td>
<td>10%</td>
<td>5%</td>
<td>20%</td>
<td>30%</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>29%</td>
<td>14%</td>
<td>57%</td>
<td></td>
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Q36. Please RANK the items that influenced your decision not to offer mobile payment services. Please rank them from 1 to 8 in order of importance with 1 as the most important. n=40
2014 New England Mobile Banking and Payments Survey

Review of Bank Findings

Marianne Crowe, Federal Reserve Bank of Boston
Multiple Types of Banks Represented

Q9. Please indicate your financial institution type. n=107
Massachusetts & Maine respondents correlate to total number of banks in their states.

Actual % of NE Bank Total:
- MA: 56%
- ME: 11%

Q7. Please indicate where your bank is headquartered. n=107
Bank asset size widely distributed

Q8. What is your FI's asset size? n=107
Banks offering Mobile Banking increased from 56% to 84% in 2014

- 37% of community banks currently offer mobile banking
- 43% plan to offer before 2015

- 2013 ICBA Community Bank Payments Survey
Banks Continue to Offer Multiple Platforms

Offering mobile app increased from 18% to 54% in 2014

Q12. What mobile banking platform do you (plan to) use? (Select ALL that apply)  n=102

- Triple Play: 60%
- Mobile app: 54%
- Mobile website: 39%
- SMS text: 34%
- Other: 2%
Most banks offer mobile apps for both Apple and Android.

Fewer offer apps for other mobile operating systems:

- Apple iOS: 98%
- Google Android: 95%
- Microsoft Windows: 29%
- Blackberry: 22%
- Other: 3%

Q13. Which mobile OS does or will your mobile banking app support? (Select ALL that apply) n=104
Banks recognize value of tablet to support mobile banking

Q14. Do you (plan to) offer mobile banking services with table application? (Check ALL that apply) n=97
Banks use variety of vendors for mobile solutions

Q15. What company provides or will provide your mobile banking system? n=104

- Fiserv: 36%
- Jack Henry: 14%
- FIS: 12%
- Q2 eBanking: 10%
- ACI Worldwide: 8%
- Digital Insight: 6%
- COCC: 6%
- In-house system: 2%
- Monitise: 1%
- Other: 5%
Over 50% of banks offer or plan to offer traditional mobile services

mRDC becoming standard mobile offering

Q16. Which of the following mobile banking services do you currently offer or plan to offer? n=103

- Check balance (DDA, Savings)
  - Currently offer: 87%
  - Plan to offer: 13%
- Transfer funds between same owner’s accounts within same bank
  - Currently offer: 86%
  - Plan to offer: 14%
- View statement and transaction history (DDA, Savings)
  - Currently offer: 84%
  - Plan to offer: 15%
- ATM/branch locator
  - Currently offer: 79%
  - Plan to offer: 14%
- Bill payment
  - Currently offer: 79%
  - Plan to offer: 18%
- Mobile remote deposit capture
  - Currently offer: 53%
  - Plan to offer: 39%
More banks offering retail customers ability to transfer funds

- Mobile P2P money transfer: 33%
- Transfer funds between same owner's accounts at different bank: 29%
- Stop payment request: 24%
- Bill presentment: 24%
- Personal financial management: 10%

Q16. Which of the following mobile banking services do you currently offer or plan to offer? n=103
Banks adding unique mobile banking features

Q17. Do you (plan to) offer the following features? (Check ALL that apply)  n=92

- Single login/authentication credentials for online and mobile services: 76%
- Enroll for mobile banking using mobile device: 74%
- Open accounts over mobile device: 28%
- Mobile banking products targeted to underbanked: 12%
- Bilingual mobile website or app: 10%
Not all traditional services offered via mobile

Q16. Which of the following mobile banking services do you currently offer or plan to offer? n=103

- **Access to brokerage service**
  - Currently offer: 25%
  - Plan to offer: 30%
  - No plans to offer: 45%
  - Total: 100%

- **International remittance**
  - Currently offer: 50%
  - Plan to offer: 30%
  - No plans to offer: 20%
  - Total: 100%

- **Check prepaid balance**
  - Currently offer: 50%
  - Plan to offer: 40%
  - No plans to offer: 10%
  - Total: 100%

- **View prepaid transaction history**
  - Currently offer: 80%
  - Plan to offer: 20%
  - No plans to offer: 0%
  - Total: 100%

- **View credit card balance, statement and history**
  - Currently offer: 80%
  - Plan to offer: 20%
  - No plans to offer: 0%
  - Total: 100%

- **Account address change**
  - Currently offer: 80%
  - Plan to offer: 20%
  - No plans to offer: 0%
  - Total: 100%

- **Check reorder**
  - Currently offer: 80%
  - Plan to offer: 20%
  - No plans to offer: 0%
  - Total: 100%
Banks focus on alerts to help customers manage their funds

Q18. What types of mobile alerts do you (plan to) offer? (Check ALL that apply)  n=100

- Low balance: 91%
- Insufficient funds: 83%
- Funds transfer completed: 73%
- Bill pay: 72%
- Card not present transaction: 18%
- Two-way actionable text alerts: 15%
- Credit card balance close to or over limit: 3%
- Other: 11%
Banks identify poor consumer behavior as #1 security concern

Q19. Please select your FI's TOP THREE security related issues or concerns associated with mobile banking. n=103

- Inadequate customer protection behavior: 59%
- Malware/viruses: 59%
- Identity theft: 47%
- Use of unsecured network: 43%
- Mobile spoofing: 42%
- Data breach: 28%
- Insufficient authentication: 18%
- Other: 2%

Q19. Please select your FI's TOP THREE security related issues or concerns associated with mobile banking. n=103
Stronger authentication is key to enhancing mobile security

Q20. Which of the following does your FI currently use or plan to use to enhance mobile security? (Check ALL that apply)  n=103

- Multi-factor authentication: 89%
- Time-out due to inactivity: 80%
- Mobile device ID: 55%
- Encryption: 54%
- Mobile notifications: 51%
- Out-of-band authentication: 41%
- Geo-location: 34%
- Tokenization: 10%
- Biometrics: 7%
- Other: 2%
**Attracting new customers is becoming higher priority for Banks**

With retention stable, banks focus on leveraging mobile to attract new customers.

**Q21. If you (plan to) offer mobile banking, what is your primary business reason? (Check only ONE)  n=99**

- Retain existing customers: 1%
- Attract new customers: 2%
- Be market leader with technology: 22%
- Competitive pressure: 28%
- Increase revenue: 17%
- Other: 1%

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**|**
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Customer retention is viewed as a major benefit of mobile banking.

Q22. What business benefits have you achieved since offering mobile banking? (Check ALL that apply) n=100

- Customer retention: 74%
- Improved efficiency: 38%
- Increased transaction volume: 25%
- Reduced operational costs: 20%
- No benefits: 9%
- Other: 3%
- N/A Not yet offering mobile banking: 10%
Q23. How do you (plan to) market your mobile banking services? (Check ALL that apply)  n=101

- Promote on own website: 96%
- Branch signage and brochures: 90%
- Social media marketing: 56%
- Direct mail/statement stuffers: 50%
- Radio, TV, print ads: 47%
- Email/phone calls to existing customers: 39%
- Banner ads on other mobile apps/websites: 32%
- Other: 2%
50%+ banks have enrolled between 5-20% of retail customers in mobile banking

Q24. What percentage of your retail customers have used your mobile banking services? n=89
Very few business customers have adopted mobile banking

Q27. What percentage of your commercial customers have used your mobile banking services? n=79

- Enrolled mobile banking customers
- Active mobile banking customers

<table>
<thead>
<tr>
<th>Percent of business mobile banking customers</th>
<th>Percent of banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 5%</td>
<td>90%</td>
</tr>
<tr>
<td>5% to 20%</td>
<td>9%</td>
</tr>
<tr>
<td>21% to 50%</td>
<td>1%</td>
</tr>
</tbody>
</table>
Banks are adding more business-specific mobile services

Q26. What additional mobile banking services do you (plan to) offer your commercial customers? (Check ALL that apply) n=94

- Same mobile banking services for business and retail customers: 72%
- Check corporate balance and monitor account: 49%
- Cash management functions: 38%
- Administer users and reset passwords: 15%
- Mobile card acceptance/mPOS: 12%
- Undecided: 5%
#1 Barrier to customer adoption is security – but customer demand is a close 2nd

Q25. What are the THREE most common reasons you believe prevent greater customer adoption of mobile banking? n=96

- Security concerns: 75%
- Customer banking needs met via other channels: 67%
- Lack of customer awareness: 67%
- Phone screen size: 19%
- Login process complicated: 13%
- Mobile app not user-friendly: 8%
- Other: 16%
Very few banks plan to charge fees for mRDC and P2P - About same % as 2012

Q28. Do you (plan to) charge a fee for any mobile banking services?  n=104
Q29. Please indicate ALL services for which you (plan to) charge a fee. (Check ALL that apply)  n=12
Only three banks DO NOT offer or plan to offer mobile banking

Why not?

- All 3 banks noted the same top factors influencing their decision
  - #1 Security concerns
  - #2 Lack of customer demand (#1 in 2012)

- 2 banks reported as important:
  - ROI/Lack of business case
  - Regulatory issues

- One bank reported as important
  - Lack of standards and interoperability as important

- Lack of consistent, reliable cellular coverage was not an influencing factor

Q30. RANK items that influenced your decision not to offer mobile banking services from 1 to 7 in order of importance with 1 as the most important. n=3
Interest in offering retail mobile payments has increased

Q31. Do you (plan to) offer mobile payment services to your customers? (Check ONE)

- Currently offer mobile payment services
  - 2014, n=107: 7%
  - 2012, n=105: 3%

- Plan to offer mobile payment services within next 1-2 years
  - 2014, n=107: 43%
  - 2012, n=105: 34%

- Currently do not offer mobile payment services
  - 2014, n=107: 50%
  - 2012, n=105: 63%
Banks see value in partnering with mobile providers

Q32. How do you (plan to) offer mobile payment services? (Check ALL that apply)  n=59

- Partner with third party provider: 83%
- Partner with card network: 24%
- Partner with digital wallet provider: 14%
- Partner with retailer: 3%
- Partner with NFC wallet provider: 2%
- Partner with transit authority: 0%
- Undecided: 9%
Q33. Please RANK mobile payment services based on your perception of the value of offering them as part of your mobile banking app from 1 to 5 in order of importance with 1 as the most important.
Banks see different value in offering retail mobile payments vs. mobile banking

Q34. If you (plan to) offer mobile payment services, what is your primary business reason? (Check only ONE)

- Be market leader with technology: 32%
- Attract new customers: 32%
- Retain existing customers: 16%
- Competitive pressure: 16%
- Increase revenue: 4%

n=56
Fragmentation limits opportunities to leverage value of mobile payments

Q35. Which barriers do you see to offering mobile payments for purchases? (Check ALL that apply)  n=56

- Limited value of mobile payments for purchases: 27%
- Lack sufficient expertise to make informed decision: 29%
- Inadequate/not broadly implemented security tools: 43%
- Security concerns: 75%
- Market still immature/fragmented: 88%
### Banks NOT planning to offer mobile payments rank low customer demand slightly more important than security

<table>
<thead>
<tr>
<th>Category</th>
<th>1 (Most important)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8 (Least important)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of customer demand</td>
<td>50%</td>
<td>8%</td>
<td>8%</td>
<td>8%</td>
<td>14%</td>
<td>6%</td>
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<td></td>
</tr>
<tr>
<td>Security concerns</td>
<td>26%</td>
<td>26%</td>
<td>14%</td>
<td>14%</td>
<td>11%</td>
<td>3%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Lack of standards and interoperability</td>
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<td>14%</td>
<td>14%</td>
<td>17%</td>
<td>25%</td>
<td>14%</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>ROI/Lack of business case</td>
<td>9%</td>
<td>11%</td>
<td>20%</td>
<td>14%</td>
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<td>26%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Lack of consistent, reliable cellular coverage</td>
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<td>6%</td>
<td>3%</td>
<td>9%</td>
<td>11%</td>
<td>54%</td>
<td>11%</td>
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<td>Limited value or benefit</td>
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<td>26%</td>
<td>20%</td>
<td>14%</td>
<td>17%</td>
<td>6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulatory issues</td>
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<td>21%</td>
<td>21%</td>
<td>12%</td>
<td>21%</td>
<td>3%</td>
<td>3%</td>
<td></td>
</tr>
</tbody>
</table>

#### 3 Banks indicated “vendor plans unavailable or unknown” as most important

Q36. Please RANK the items that influenced your decision not to offer mobile payment services from 1 to 8 in order of importance with 1 as the most important. n=40
Summary conclusions
Many areas of consistency exist between banks and credit unions

- Mobile banking is a “baseline” service for financial institutions in New England – both banks and CUs are now rolling out business-specific services.

- Although ‘triple play’ remains dominant for banks; both banks and CUs are recognizing that mobile apps hold the future for mobile banking services.
  - Tablets are a fast growing area.

- Banks and CUs share common business drivers for offering mobile banking – attracting new customers.
  - But mobile is seen as critical in retaining existing customers.

- FIs still see security and market fragmentation as key barriers to implementing mobile payments.