



December 13, 2013

To: Financial Services Policy Committee of the Conference of Presidents  
Federal Reserve System

RE: Response to Federal Reserve's "Payment System Improvement - Public Consultation Paper"

Filed via email to [comment@fedpaymentsimprovement.org](mailto:comment@fedpaymentsimprovement.org)

On behalf of BITS, the technology policy division of The Financial Services Roundtable, I would like to respond to the questions posed by the Federal Reserve Banks in the "Payments System Improvement-Public Consultation Paper" issued on September 10, 2013. BITS addresses issues at the intersection of financial services, technology and public policy, on behalf of its roughly one hundred member institutions, their millions of customers, and all of the stakeholders in the US financial system.

We applaud the Federal Reserve Banks' focus on improving the efficiency and security of future payments system and the manner in which you are reaching out to the industry and public for input. Attached are the responses to the specific questions.

Overall, we believe that ubiquitous, near-real-time payments is a desirable goal. However, it should be weighed against the value of other features outlined in response to question, including cost, finality, risk and available information. In addition, we need to collectively better understand and validate the user demand for these improvement features and the relevant business case.

The government and industry could improve the payments system by:

- Harmonizing and simplifying the underlying rules and regulations to make them more consistent.
- Supporting a market-based approach that permits financial institutions to recover the cost of making investments and infrastructure improvements through fees and other revenue.
- Promoting enhanced security and risk management standards to mitigate cyber risks to the system.
- Improving transparency and information flow associated with payment related messaging.

- Considering consolidation of services associated with various payment tracks (i.e. electronic checks).
- Encouraging innovation in products and services.
- Facilitating interoperability between various disparate payment networks.

We look forward to continuing this dialogue between the Federal Reserve and financial services on how best to move to a better, more efficient, secure and resilient payment system that meets evolving user needs.

Sincerely,

A handwritten signature in cursive script that reads "Paul H. Smocer".

Paul Smocer  
President

## Responses to Questions

### General

Q1. Are you in general agreement with the payment system gaps and opportunities identified above? Please explain, if desired.

i. What other gaps or opportunities not mentioned in the paper could be addressed to make improvements to the U.S. payment system?

A1. While ubiquitous near real-time payments is a desirable goal, it should be weighed against the value of other features. These include finality (point at which the payment cannot be reversed), associated risks, liabilities and guarantees, and the availability of information related to the payment (e.g., the status of payments, linkage to bills and remittance, records for tax purposes, traceability to support disputes, and anonymity for privacy protections).

In addition, cost is a big driver and real-time payments and the features mentioned above require significant investments. The right combination for a user depends on the context of the situation. For example, a person or merchant might prefer paying less transaction cost and taking on more risk if the payment is from someone they know well and do repeat business with. Another important feature is convenience. For example, “one-click” web shopping is an innovation that has market value in that it makes paying easier. Other relevant attributes include credit (ability to pay when you have insufficient funds to cover the payment), transparency (clear and comprehensible information about the parties involved and the risks and costs associated with the payment method); dispute resolution (ability to dispute the payment), security (from fraud, identity theft and lost or stolen funds), the ability to integrate and embed payments into the whole purchase, the funds transfer experience and the development of new applications.

Near real time payments would require stakeholders in the payments system to make significant investments in core systems and processes and, at this time, the justification for these investments is uncertain. Faster messaging capabilities may be more easily justifiable based on experience with debit processing and wire transfers. Another factor to consider is the proliferation of mobile technology supporting financial services. The rapid adoption of this technology may encourage a natural, market driven progression to near real time payments, which is preferable to new regulation.

Q2. Are you in general agreement with the desired outcomes for payment system improvements over the next 10 years? Please explain, if desired.

i. What other outcomes should be pursued?

A2. We recommend further exploration of the needs of end users.

In addition to speed, we encourage the Banks to consider user choice and control over how payment attributes are bundled. For example, digital currency provides fast easy settlement with finality, and can be designed to be fairly anonymous. However, at the

present time, fraud controls are limited. In many cases near real-time speed may be less important than verification that the transaction is authentic and the availability of transaction information and record keeping.

We believe that the Banks should make consistency of results across payment systems a priority outcome. In the current environment, the risks, protections and charges vary widely depending upon whether the payment is processed through the ACH system, or as an electronic check, a debit card transaction, or a wire transfer.

The method by which a payment is initiated also makes a difference. ACH rules, distinguish between online, in person and telephone initiation, which makes questionable sense to customers or providers of payment services. It also could make it difficult for retail and corporate customers to make rational choices about their payment system options. Furthermore there are differences depending on whether the payment is made by the payer submitting a credit to the payee, or the payee is debiting the payer's account. These varying rules inhibit interoperability and confuse customers as to their rights and obligations. Harmonization and simplification of the underlying rules and regulations should also be emphasized as an essential outcome.

Q3. In what ways should the Federal Reserve Banks help improve the payment system as an operator, leader, and/or catalyst?

A3. The Federal Reserve Banks could help improve the payments system by:

- Recommending harmonization and simplification of the underlying rules and regulations to make them more consistent.
- Supporting a market-based approach that permits FIs to recover the cost of making investments and infrastructure improvements through fees and other revenue.
- Promoting enhanced security and risk management standards to address cyber attacks on the system.
- Improving transparency and information flow associated with payment related messaging.
- Considering consolidation of services associated with various payment tracks (i.e. electronic checks).
- Encouraging innovation in products and services in addition to its regulatory role.
- Facilitating interoperability between various disparate payment networks.

Q4. In discussions with industry participants, some have stated that implementing a system for near-real-time payments with the features described in the second desired outcome (ubiquitous participation; sender doesn't need to know the bank account number of the recipient; confirmation of good funds is made at the initiation of the payment; sender and receiver receive timely notification that the payment has been made; funds debited from the payer and made available in near real time to the payee) will require coordinated action by a public authority or industry group. Others have stated that current payment services are evolving toward this outcome and no special action by a public authority or industry group is required.

- i. Which of these perspectives is more accurate, and why?
- ii. What other perspective(s) should be considered?

A4. Many current payments services are evolving towards achieving these outcomes, driven by market place demands, albeit by different means and directions. Examples include:

- Visa and Mastercard's dynamic payment token,
- clearXchange person to person payment through phone numbers and email addresses,
- The Clearing House's cloud for tokenized payments, and
- Digital currencies such as Bitcoin.

The market place continues to evolve and it is inappropriate for the Federal Reserve to pick winners or losers.

A public authority or public/private committee could form an industry group to design the desired system by committee, but design by committee is unlikely to succeed, could stifle innovation, and end up with a solution priced too high. Unless, one subsidizes high-risk payment transactions at the expense of low-risk transactions, the price for a single approach at achieving secure, near real time ubiquitous payment with finality and the other desired features for all may not be affordable to many nor desired by many. What is preferred is a federation of systems that are capable of delivering all of the desired features and allow the end users to pick and choose what features they desire based on cost and context of the particular transaction. For example, one might be willing to pay a few dollars to ensure real-time payment in order to avoid a late fee for an otherwise overdue payment, but not otherwise.

What could help is to create an environment more conducive towards encouraging all stakeholders to move towards the desired end goal. Such an environment would include:

- Statement of the "vision"
- Simplification and harmonization of the underlying rules and regulations
- Development/enhancement of standards to ensure interoperability and security
- Incentives (tax credits, etc.) for investing in needed infrastructure improvements (such as stronger authentication technology) and removal of any artificially imposed caps on fees, such as evidenced by the Durbin amendment.

Q5. The second desired outcome articulates features that are desirable for a near-real-time payments system. They include:

- a. Ubiquitous participation
  - b. Sender doesn't need to know the bank account number of the recipient
  - c. Confirmation of good funds is made at the initiation of the payment
  - d. Sender and receiver receive timely notification that the payment has been made
  - e. Funds debited from the payer and made available in near-real time to the payee
- i. Do you agree that these are important features of a U.S. near-real-time system? Please explain, if desired.

ii. What other characteristics or features are important for a U.S. near-real-time system?

A5. There are a wide range of risk profiles and varying risk management approaches in the industry, which impact a universal change to near real time payments. Again, detailed analysis will be required to support business and risk management, likely on a case-by-case basis.

The features noted in the paper are important, but as discussed earlier, their importance and desirability is impacted by their cost and will vary depending upon the context in which the payments are being made. Convenience, security, access to information, ability to embed in existing and new applications, security and usability are a few notable characteristics for consideration as well. Some of these outcomes (e.g., sender doesn't need to know the bank account number of the recipient) already exist or are not applicable to all the existing payment products (e.g., in a debit card transaction, the sender doesn't need to know the payee's bank account number, nor is this the case in some of the newer person-to-person payment). Similarly, confirmation of good funds is implicit in the case of a debit card transaction. And other features such as cost, credit, linkage to remittance information, anonymity and security may well outweigh many of the features listed in the paper, depending upon the circumstances and context surrounding the payment. Transparency to the user of what features are available and their associated costs – along with the ability to choose are over- arching priorities as well.

Q6. Near-real-time payments with the features described in the second desired outcome could be provided several different ways, including but not limited to:

- a. Creating a separate wire transfer-like system for near-real-time payments that leverages the relevant processes, features, and infrastructure already established for existing wire transfer systems. This option may require a new front-end mechanism or new rules that would provide near-real-time confirmation of good funds and timely notification of payments to end users and their financial institutions.
- b. Linking together existing limited-participation networks so that a sender in one network could make a payment to a receiver in another network seamlessly. This option may require common standards and rules and a centralized directory for routing payments across networks.
- c. Modifying the ACH to speed up settlement. This option may require a new front-end mechanism or new network rules that would provide near-real-time confirmation of good funds and timely notification of payments to end users and their financial institutions. Payments would be settled periodically during the day.
- d. Enhancing the debit card networks to enable ubiquitous near-real-time payments.
- e. Implementing an entirely new payment system with the features described in the second desired outcome above.

- i. What would be the most effective way for the U.S. payment system to deliver ubiquitous near-real-time payments, including options that are not listed above?
- ii. What are the likely pros and cons or costs and benefits of each option? What rule or regulation changes are needed to implement faster payments within existing payment processing channels? (see I above)
- iii. Is it sufficient for a solution to be limited to near-real-time authorization and confirmation that good funds are on their way, or must end-user funds availability and/or interbank settlement take place in near-real time as well? (see above).
- iv. Which payment scenarios are most and least suitable for near real-time payments? (B2B, P2P, P2B, POS, etc.)

A6. Creating a separate wire transfer-like system for near-real-time payments, as described, could be redundant and may not be feasible. Linking together existing limited-participation networks as described already exists in some cases so there is precedent to support pursuing the concept, as discussed. The business case for modifying the ACH to speed up settlement appears to be somewhat lacking. The significant investment requirements are not necessarily justifiable, especially given that alternatives already exist (e.g., debit, wire transfers). Enhancing the debit card networks to enable ubiquitous near-real-time payments seems like the option most compatible with the Federal Reserve Banks' vision. There is not adequate justification outlined in the paper at this time to pursue implementing an entirely new payment system to achieve the goals described.

We would caution against designing by committee or picking winners. A preferable approach is to create an environment conducive to offering such desired features that are competitively priced and cost-justified. This would include incentives for payment services to make the necessary investments. The incentives could include:

- Financial incentives, such as tax credits;
- Rules and regulation incentives, such as simplified and harmonized rules that are easy for all to understand, do not stand in the way of new more innovative solutions, do not introduce burdensome reporting, do not inadvertently favor one solution over another, such as legislating fees and fee caps, as in the Durbin amendment.

Fair prices can be better achieved by ensuring an open, fair and competitive marketplace.

Q7. Some industry participants have said that efforts to make check payments easier to use, such as by enabling fully electronic payment orders and/or by speeding up electronic check return information, will incrementally benefit the payment system. Others argue the resources needed to implement these efforts will delay a shift to near-real-time payments, which will ultimately be more beneficial to the payment system. Which of these perspectives do you agree with, and why?

While not all financial institutions wish to promote check writing as a preferred channel, most agree that if their customers want to write checks they are prone to continue offering the service.

A7. Efforts to make existing payments, such as check payments, easier to use may not only incrementally benefit the payment system, but could conceivably become part of the greater desired solution. For example, there are many features associated with the check that, as it shifts from physical to virtual, make it attractive given that checks are ubiquitous, do not require knowledge of the payees account number, is easy to integrate with remittance data and invoices, and could be designed to provide near-real time payment. Added features such as check guarantees and bank checks can add other assurances of good and available funds. Additional features, such as digital signatures, can add additional and necessary security features.

Q8. How will near-real-time payments affect fraud issues that exist with today's payment systems, if at all?

- i. Will near-real-time payments create new fraud risks? If yes, please elaborate on those risks.

A8. Near real-time payments will likely create new fraud risks. As payments "speed up", then monitoring fraud will become more challenging. Consequently, more investment will be necessary to improve security controls including front end authentication. For example, if a criminal has to wait for funds availability, the criminal has more risk in getting caught than the case where funds are instantly transferred and the criminal can abscond with the funds long before anyone realizes that a fraud has been committed. Once the money is gone, it is more difficult to recover or reverse.

Some additional issues complicating near-real-time payments fraud risks:

- Fraudsters adapt to changes in the payment system faster than Financial Institutions
- No industry shared standard on reviewing "real-time" transactions (Credit Card is real-time vs. ACH day 1)
- Lack of "real-time" identity management solution to keep pace with new payees and payments
- Limited process to share risk and fraud indicator data
- Most industry fraud business processes are not built around "real-time" models

Q9. To what extent would a ubiquitous near-real-time system bring about pivotal change to mobile payments?

A9. By historical standards, the move to mobile, mobile commerce and mobile payments is occurring rapidly. It takes time for people to adjust to change and to learn to trust the new channel, and for commerce to grow to the needed critical mass. This is especially the case when, quite frankly, the current payments products are efficient and easy to use. There is less incentive to move to a new payments system/product when the existing ones meet most users' needs satisfactorily.

A regulation-based move toward a payment system remodel could negatively impact progress or rapidly accelerate it, depending on the implementation tact. Inversely, the natural progression of mobile payments technology may encourage a natural, market driven progression to near real time payments, which is preferable to imposed regulation.

Q10. What would be the implication if the industry and/or the Federal Reserve Banks do not take any action to implement faster payments?

- i. What is the cost, including the opportunity cost, of not implementing faster payments in the United States?

A10. It is hard to answer this question because, as mentioned earlier, the business case and demand for near-real time payments has not yet been established. Costs of no action by the Federal Reserve Banks impacts are potentially neutral, especially considering the cost of implementing in reaction to what may be softer demand than expected. If market driven demand is truly there, effective financial services solutions will likely be generated in an appropriate and timely reaction to meet the demand

As noted in response to question 3, the government and industry could improve the payments system by:

- Harmonizing and simplifying the underlying rules and regulations to make them more consistent.
- Supporting a market-based approach that permits financial institutions to recover the cost of making investments and infrastructure improvements through fees and other revenue.
- Promoting enhanced security and risk management standards to address cyber attacks on the system.
- Improving transparency and information flow associated with payment related messaging.
- Considering consolidation of services associated with various payment tracks (i.e. electronic checks).
- Encouraging innovation in products and services.
- Facilitating interoperability between various disparate payment networks.

Q11. To what extent will the industry need to modernize core processing and other backend systems to support near-real-time payments?

- i. What is the likely timeframe for any such modernization?

A11. Core processing and backend systems may require significant modifications and investment to enable ongoing, cost-effective support of near-real-time payments and many of the other features. Modernization of core processing can certainly help to make near real-time processing more cost effective and resilient to today's threats, and capable of handling the volume. It would also help improve the underlying security. Simplifying and harmonizing the various rules and regulations would also help. Experience shows that this will generally be a multi-year resource-intensive activity. Even moving to off-the-shelf products or cloud-based processing will still require costly and resource-

intensive migration activity. Additionally, financial institutions will need to invest in development of real-time fraud detection capabilities, similar to the card industry, which relies on shared point of sale, payment, merchant, and end-user data to combat fraud.

Q12. Some industry participants suggest that a new, centralized directory containing account numbers and routing information for businesses and/or consumers, to which every bank and other service providers are linked, will enable more electronic payments. A sender using this directory would not need to know the account or routing information of the receiver.

- i. What are the merits and drawbacks of this suggestion?
- ii. What is the feasibility of this suggestion?

A12. A directory is one possible solution that could help create payment system improvement. Consider that the ideal might not be a single centralized directory but rather an interoperable federated network of such directories, which is a likely occurrence as several such directories are already occurring.

### **Electronification**

Q13. Some industry participants say that check use is an enduring part of the U.S. payment system and that moving away from checks more aggressively would be too disruptive for certain end users.

- i. Is accelerated migration from checks to electronic payment methods a high-priority desired outcome for the U.S. payment system? (Accelerated means faster than the current trend of gradual migration.)
- ii. Please explain, if desired.
- iii. If yes, should the Federal Reserve Banks establish a target for the percent of noncash payments to be initiated via electronic means, by a specific date? For example: "By the year 2018, 95% of all noncash payments will be made via electronic means."
- iv. What is the appropriate target level and date?

A13. As the amount of checks in the system continues to decline, this doesn't appear to be a problem that demands high priority intervention or action by the Federal Reserve Banks. The Banks should allow for this natural decline and not encourage the direct removal of the product. Consumers continue to value this product and should be allowed access to it.

Q14. Business-to-business payments have remained largely paper-based due to difficulties with handling remittance information. Consumer bill payments also are heavily paper-based due to the lack of comfort some consumers have with electronic alternatives. In addition, many small businesses have not adopted ACH for recurring payments due to technical challenges and/or cost constraints. The payment industry has multiple efforts underway to address these issues.

- i. To what extent are these efforts resulting in migration from checks to other payment types?

- ii. What other barriers need to be addressed to accelerate migration of these payments?
- iii. What other tactics, including incentives, will effectively persuade businesses and consumers to migrate to electronic payments?
- iv. Which industry bodies should be responsible for developing and/or implementing these tactics?

A14. Migration rates might improve due to such things as cloud-based services and financial agent technology. Innovative approaches and new thinking regarding how to best handle remittance data details effectively could provide a catalyst for significant improvements.

### **Cross-border payments**

Q15. To what extent would the broader adoption of the XML-based ISO 20022 payment message standards in the United States facilitate electrification of business payments and/or cross-border payments? For information on ISO 20022, see, for example, <http://www.iso20022.org/faq.page>.

A15. Broader adoption of the XML-based ISO 20022 payment message standards would help facilitate cross border payments in general. The standard is less helpful for electrifying business payments in the U.S. as the overriding factor continues to be the remittance and processing efficiency challenges and cost issues associated with these payments.

Q16. What strategies and tactics do you think will help move the industry toward desired outcome four - consumers and businesses have greater choice in making convenient, cost-effective, and timely cross-border payments?

A16. The strategies and tactics for improving domestic payments help in improving cross-border payments in the sense that addressing deficiencies and improving interoperability amongst domestic payments would be an important pre-requisite in improving cross-border payments. However, active collaboration and participation on global message standards, and clearing and settlement rules will be necessary to achieve more convenient, cost effective and timely cross border payments.

### **Safety**

Q17. Payment security encompasses a broad range of issues including authentication of the parties involved in the transaction, the security of payment databases, the security of software and devices used by end users to access payment systems, and security of the infrastructure carrying payment messages.

- i. Among the issues listed above, or others, what are the key threats to payment system security today and in the future?
- ii. Which of these threats are not adequately being addressed?

- iii. What operational or technology changes could be implemented to further mitigate cyber threats?

A17. Security has been and will continue to be an essential element of any reliably functioning payment system. This entails more than assuaging consumer perceptions of mistrust to the robustness of the underlying infrastructure of the electronic network across which ubiquitous, private, and settles in near-real-time payments will take place and upon which the very stability of our entire economy depends. All risks noted are critical to the success of any payment system and must be addressed. Traditional information security solutions, if implemented effectively, can address the noted risks. However, authentication, like payments, is going through significant changes which will need to be incorporated into the new payment environment.

Security of the payment device is increasingly important and needs ongoing monitoring and improvement. Current consumer payments (cash, check, and card) can be counterfeited, manipulated, or copied, but putting payments onto full-fledged “computers” via embedded payment chips, mobile devices, etc. opens the door for dynamic counterfeiting and payment manipulation at an industrial scale not yet seen. Another noteworthy factor is the increasing velocity of technological change and innovation and the risk of creative criminal application of these new technologies. It is important that future process models and standards be flexible to meet the challenges associated with proliferating threats associated with accelerating technology change.

Authentication has the potential to be a near silver-bullet to any payment system. If the system can bind the payment method (e.g., card, mobile) to an identity, then the risk of the system is reduced to first person abuse. Social, privacy, and political challenges may limit the ability for sweeping changes. Binding payment activity to a person shared across industry holds an interesting path to a solution.

Three key areas could ensure a reduction in the risk of current and future payment systems

1. Adherence to core security standards.
2. Improved authentication and binding of payment to a unique individual.
3. Dynamic sharing of payment data, similar to cards today, that allow a shared scoring and risk model.

All of the above are key threats, but perhaps the greatest new threat would be the potential attack of the infrastructure carrying payment messages and payment databases by nation-state attacks on critical infrastructure. The security of software and devices used by end users is also a growing concern with increasing movement to mobile and the relative insecurity of mobile devices and new threat vectors.

Q18. What type of information on threat awareness and incident response activities would be useful for the industry?

- i. How should this information be made available?

A18. Expanded sharing of “bad” merchants, payees, and payments as well as sharing of malicious cyber threats and attack patterns would help in combating fraud and cyber attacks. A general model for this exists today in the card industry and the FS-ISAC is helping with cyber threat information sharing and conducting exercises to improve information-sharing and incident response effectiveness.

Q19. What future payment standards would materially improve payment security?

i. What are the obstacles to the adoption of security-related payment standards?

A19. As with PCI, blanket standards will not reduce the risk of the payment ecosystem. Payment “terms” that put the risk of loss as close as possible to the point of compromise will create a market incentive to increase security. Evaluating the liability model for consumers may also help clients of the payment system understand their role in the process.

Mitigation strategies could include alternatives like a move to transaction-unique dynamic tokens, such as EMV, rather than static account numbers and security codes, the goal being to materially improve payment security and reduce the threat of fraud through theft and knowledge of account numbers. Moving sensitive payment information to a secure cloud and reducing/eliminating the storage of sensitive PII data in third party and merchant databases may also help. Other thoughts include stronger authentication via cryptogram or dynamic data at the transaction level, better preventive analytics for fraud prevention, and trusted device hardware wallets for non-traditional transactions. Obstacles include cost and complexity of migration, including cost and difficulty in enforcing adherence to site security standards such as PCI. It would also be essential to maintain a continuous review and upgrade of the security of the underlying infrastructure.

Q20. What collaborative actions should the Federal Reserve Banks take with the industry to promote the security of the payment system from end to end?

A20. The Federal Reserve Banks should promote and develop industry friendly standards while continuing to facilitate knowledge sharing and development of assessment and mitigation guidance and best practices.

An open risk, threat, and monitoring model similar to those in place at payment processors, FS-ISAC, and FSSCC would help promote real-time response to threats, schemes, and compromises. Additionally, a shared authentication infrastructure, while presenting its own risks, would help address overall risks.

Furthermore, the Federal Reserve Banks should leverage its considerable influence globally to drive change in jurisdictions outside its direct control would have a positive impact on advancing efficiency.

Q21. Please share any additional perspectives on U.S. payment system improvements.

A21. Settlement cut offs are a significant concern for many U.S. banks and are noted as a greater priority for some over the speed of payments opportunities explored in this study. A cut off time of 6:00 Eastern currently disadvantages the other U.S. time zones. Attention toward “leveling the field” would be met with enthusiasm from impacted financial institutions.

In the consumer environment, card services currently provide a near-real-time money movement platform in that authorization and authentication happen real-time and financial institutions have the ability to block the transaction before it happens. In contrast, with ACH and even Wire, the authorization is “assumed” and the fraud modeling isn’t real-time across the industry. Banks do have some internal monitoring but it isn’t an industry shared model and not 100% geared toward massive real-time consumer transactions. Moving toward near-real time in these channels will warrant significant modifications and investment requiring a thorough business case review in advance.

Finally, over the past decade, the US Government has imposed obligations on financial institutions to monitor for, detect, and report suspicious activity to combat use of the payment system for financial crimes from money-laundering to terrorism financing. Financial institutions bear the brunt of compliance with a range of sanction regimes. As such, the government’s expectations for committing industry resources to all these obligations must be accounted for as a necessary component of any new payment system.