

**Name:** Aaron Greenspan  
**Organization:** Think Computer Corporation  
**Industry Segment:** Emerging Payments Provider

### General

1. Are you in general agreement with the payment system gaps and opportunities identified in the "Payment System Improvement Public Consultation Paper"? Please explain, if desired.

No. Generally I agree that the issues highlighted in the Fed's paper are worthy of consideration, but the single biggest issue for my company, which doesn't appear in the paper at all, is regulatory complexity for incumbents. Most of the functions that the Fed seeks to encourage are functions that could be provided by new market entrants, such as my company, were new market entrants actually allowed to enter the market. Instead, I've personally been threatened with incarceration in a federal penitentiary for attempting to improve the payment system, while the CEOs of the banks that brought the world economy to its knees have walked away with hundreds of millions of dollars. Furthermore, I've tried to bring these issues to light in prior Federal Reserve requests for comment (see [http://www.federalreserve.gov/SECRS/2011/January/20110131/R-1404/R-1404\\_012211\\_62816\\_479290761925\\_1.pdf](http://www.federalreserve.gov/SECRS/2011/January/20110131/R-1404/R-1404_012211_62816_479290761925_1.pdf)). I've e-mailed Federal Reserve officials directly (I have no relation to Alan Greenspan, in case you are wondering). I've called those same officials when they haven't responded to e-mails. And guess what? Nothing changes.

1i. What other gaps or opportunities not mentioned in the paper could be addressed to make improvements to the U.S. payment system?

For more information about money transmission laws see <http://www.thinkcomputer.com/corporate/whitepapers/heldhostage.pdf>, <http://www.facecash.com/legal/brown.html>, <http://www.plainsite.org/flashlight/case.html?id=716056> and <http://www.plainsite.org/flashlight/case.html?id=2434524>.

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

Yes. Yes, the paper sounds great, except that these outcomes should be achieved in less than ten years. Try one or two years. The Fed is moving too slow. And it's great to put things in papers and solicit feedback about papers and write more papers about the feedback to the papers, but the fact of the matter is that while you've been dreaming up "desired outcomes" in Washington, D.C. (or Kansas City or Cleveland or wherever), I've been sitting around in Silicon Valley doing much less than I would like to improve the payment system for 2.5 years because large incumbent financial companies didn't think I should be allowed. How does that match up with the desired outcome of "consumer choice?"

2i. What other outcomes should be pursued?

Regulatory clarity for new market entrants and small banks should be a desired outcome. The elimination and/or federal pre-emption of state-by-state money transmission laws should be a key focus for the Fed.

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

Eliminate NACHA's authority to do anything and force the banks to use an up-to-date money transfer standard. Ditch FedWire, too. There's no need for multiple protocols. Make a new one that actually makes sense for all use cases. Or, if that is too scary sounding, at least let new market entrants improve things, instead of sitting around with no comment while Congress continues to delegate to state bureaucrats the power to send any entrepreneur working on a market-making or payment-related system to jail.

### Ubiquitous near-real-time payments

4. 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.

4i. Which of these perspectives is more accurate, and why?

**This is a poorly-thought-out question. Neither perspective is quantifiably "more accurate." It's true that the market is moving toward this outcome, but it's moving too slowly because money transmission laws are killing companies like mine and the Fed has done nothing about it for years.**

4ii. What other perspective(s) should be considered?

**Were I at the Fed, I would consider the perspective that the large banks dominate decision-making at NACHA (let alone Washington in general) and do not have the public's interest in mind.**

5. 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

5i. Do you agree that these are important features of a U.S. near real-time system? Please explain, if desired.

**Yes.**

5ii. What other characteristics or features are important for a U.S. near real-time system?

**Legal identity confirmation. Right now different states' secretaries of state control corporate identifiers and do not provide public access to their databases. Consequently, for anti-fraud purposes it's often difficult to determine whether some legal entities are real or not, duplicates of others, or related to others. All of this information becomes far more important when payments are happening in real-time and there's less of a buffer period to handle fraud issues. The Fed should encourage adoption of a nationwide standard for identifying corporate entities, whether that means secretaries of state start collecting and publishing TINs, or something else.**

6. 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.

6i. 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?

**Option (a) sounds like option (e) to me, and that would be my first choice, except I'd want real-time. "Near-real-time" is a joke, and I'm not sure why the Fed is wasting its time discussing it. Option (c), modifying ACH, is exactly what the Fed should not do. Let ACH die already. It's horrendous.**

6ii. 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?

**Obviously it's better for the public not to have to wait days for funds to transfers. It's bad for the banks because they have less time to sit on the public's money, but too bad for them. The existing regulatory framework generally seems to work fine independent of payment speed, with the exception of money transmission laws, which are mostly so old that they were written before there was even a commercial internet (one of many reasons why they are unconstitutional; internet regulation is strictly within the federal domain, see ALA v. Pataki (1997)).**

6iii. 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?

**No. Near-real-time is dumb. Real-time is what people want and expect.**

6iv. Which payment scenarios are most and least suitable for near real-time payments? (B2B, P2P, P2B, POS, etc.)

**All payment scenarios are unsuitable for near-real-time payments because we already have the infrastructure necessary (the internet) to provide real-time payments and it makes no sense to half-bake a solution.**

7. 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?

Neither. Checks are obsolete and near-real-time payments make no sense. I wouldn't put any more effort into either.

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

Near-real-time payments will make it harder to catch fraudulent transactions before they go through, but the benefits will still outweigh the costs, and financial institutions will have an incentive to actually pay attention to what's going through their networks.

8i. Will near-real-time payments create new fraud risks? If yes, please elaborate on those risks.

No Same fraud risks, just amplified slightly.

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

It wouldn't. We need real-time. And we need a way to verify account holder information!

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

What's already happening: the market would take care of it instead, except at a snail's pace because of unconstitutional state money transmission laws that inhibit innovation.

10i. What is the cost, including the opportunity cost, of not implementing faster payments in the United States?

Probably a few trillion dollars' worth of aggravation and stupid delays? Who knows. It's quite high.

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

Does this matter? Last time I checked the public bailed out the banks. The public wants real-time payments; the banks can afford the upgrade.

11i. What is the likely timeframe for any such modernization?

Not fast enough.

12. 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.

12i. What are the merits and drawbacks of this suggestion?

The most important merit of the suggestion is that it would greatly reduce fraud by enabling account holder verification API calls. The drawback of course is that there might be a single point of vulnerability security-wide and failure reliability-wise. But it's probably still worth doing.

12ii. What is the feasibility of this suggestion?

My company has basically already built such a system, even though no banks are presently connected to it, so it's certainly feasible.

### **Electronification**

13. 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.

13i. 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.) Please explain, if desired.

**Yes. If my great aunt can use an iMac, she can figure out electronic payments. She hates balancing her checkbook anyway.**

13ii. 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." If Yes, what is the appropriate target level and date?

**Yes. 99% by 2015**

14. 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.

14i. To what extent are these efforts resulting in migration from checks to other payment types?

**Not enough! We still get paid by check most of the time from companies and government agencies. It's absurd.**

14ii. What other barriers need to be addressed to accelerate migration of these payments?

**Money transmission laws need to be pre-empted to allow for business software that easily integrates with payment systems, such as the exact product that my company built before it was outlawed by the California Money Transmission Act.**

14iii. What other tactics, including incentives, will effectively persuade businesses and consumers to migrate to electronic payments?

**The fact that integrated electronic payments and accounting would save companies billions of dollars per year should be enough to incentivize people to switch.**

14iv. Which industry bodies should be responsible for developing and/or implementing these tactics?

None?

### **Cross-border Payments**

15. 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?

I'm sure it would help, I don't know how much. Half of the XML standards out there are useless, although this one is probably not in that group. But there are still plenty of other reliable ways to make payments sans XML. That being said, if this standard replaced ACH flat files, I'd be thrilled.

16. 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?

Without a doubt, the most important factor here would be federal pre-emption of state money transmission laws, which grant effective monopolies to the companies that have lobbied for them: Western Union, MoneyGram, Travelex, Sigue Corporation, and RIA Card Services (collectively, The Money Services Round Table).

### **Safety**

17. 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.

17i. Among the issues listed above, or others, what are the key threats to payment system security today and in the future?

ACH flat files have no security, the ISO card standard has no security... Basically the only thing between consumers and fraud is each bank's security department.

17ii. Which of these threats are not adequately being addressed?

All of them.

17iii. What operational or technology changes could be implemented to further mitigate cyber threats?

See U.S. Patent No. 8,396,808 B2: Method and system for transferring an electronic payment, the technology underlying FaceCash.

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

I'm not sure awareness is really the problem here... Everyone is aware that hackers exist, the problem is that most people in banking have no idea how computers work.

18i. How should this information be made available?

Hire more computer-savvy bankers and regulators.

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

Perhaps a standard that, unlike ACH, requires a hash to match somewhere for each transaction.

19i. What are the obstacles to the adoption of security-related payment standards?

State-based money transmission laws keep the status quo in place so that large banks can make a fortune, and the status quo is highly insecure.

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

Frankly, I'm sick of hearing about collaborative actions that government can take with "industry" because "industry" is always a buzzword that really means the top three to five companies in any given sector. If the Fed is serious about security of the payment system, it should be encouraging new voices to enter the industry, and the way to do that is to have Ben Bernanke (or Janet Yellen) make crystal to Congress that they need to do something about money transmission laws--specifically, 18 U.S.C. Â§ 1960, and fast.

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



