Money in the Age of Now

Executive Summary

We're in the Age of Now. Amazon has trained us all to expect fast delivery of goods and services. But money still moves no more quickly than the pace of overnight batch settlement or within "banker's hours." That's changing. "Faster money" services have emerged to satisfy the speed needs of Millennials and all who no longer want to wait. Services like Venmo, Square Cash, and PayPal are available now, and additional services are coming on the market such as Early Warning Services' Zelle and an entirely new instant payment system from The Clearing House (TCH). Most promise, to varying degrees, to move money between sender and receiver almost instantly, a big change from today's systems.

Faster money thinking in the U.S. has been stimulated by the Federal Reserve and its Faster Payments Task Force. But faster money is a global phenomenon. The U.S. is following Brazil, Japan, Mexico, Singapore, South Africa, the U.K. and other countries where domestic instant payment systems have been available for up to a decade.

About this White Paper

This white paper is a collaborative work of PSCU and Glenbrook Partners. Because payments is a core service of credit unions, PSCU has asked Glenbrook to examine two of today's top-of-mind topics: Blockchain technology and the faster money/faster payments phenomenon. This white paper examines the evolution and arrival of new faster money systems in the United States.

Credit union leaders from across the country were interviewed and we found that awareness of this new technology continues to grow. As this topic evolves and more information is available, PSCU will continue to share with you.

Three quarters of U.S. households want real-time transaction posting.[1] We know consumers want speed but the services offered by financial institutions today can't provide it. As a result, many younger consumers have turned to faster money services like Venmo to send money to friends, family, and even businesses.

There is plenty of competitive pressure to meet this growing demand for "faster" solutions. Large financial institutions are behind new systems from TCH and Zelle. Enabling capability is available from Visa and Mastercard. Now is the time to act as an industry in order to deliver competitive services.

Aligning the Industry around Faster

Two forces are shaping the market for faster money movement. The first is competition. Services like Venmo and Square Cash, both of which use the existing payment systems to move money, have alerted financial institutions to the consumer appeal of such services.

The other force is the U.S. Federal Reserve. Itself interested in spurring competition to improve the country's payment systems, the Federal Reserve concluded in a 2013 report that the U.S. lacked "ubiquitous, faster electronic solutions for end users to make real-time payments from any bank account to any other bank account."[2] In order to provide a collaborative process for all stakeholders, the Fed followed its initial effort by organizing the Faster Payments Task Force to develop performance criteria for the new system. Importantly, the Fed also concluded that any new system should come from the private sector and not from Federal Reserve Financial Services, the Fed's payment services arm.

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Produced in 2016, the Faster Payments Task Force Effectiveness Criteria[3] outlines 32 criteria organized in six categories:

- **Ubiquity.** Every financial institution (and thus every type of accountholder) must be able to access the system, regardless of its size or charter type. Cross-border capability is included.
- **Efficiency.** Competition is at the center here, to keep costs low and encourage innovation. It also means that the systems should enable value-added services that employ the fast payment system. Besides speed, a major differentiator from prior systems is the use of standard methods to represent such items as remittance data. The new system will adopt the ISO 20022 standards for real-time payments to improve interoperability among

[1] *Fiserv: Expectations & Experiences: Household Finances, April 2016*
[2] *Federal Reserve Faster Payments Assessment Summary*
[3] *https://fedpaymentsimprovement.org/wp-content/uploads/faster-payments-effectiveness-criteria-overview.pdf*

enterprise, domestic and international payment systems.

- **Safety and Security.** Robust risk management, end-user data protection and authentication controls, and clear rules and processes on payment finality, settlement, and dispute management are among the criteria.
- **Speed.** Fast approval, clearing, availability of funds to the payee, fast(er) settlement of obligations, and status visibility are central criteria.
- **Legal Framework.** As with every other payment system, a clear and thorough rule set defining standards, protocols and procedures, applicable to all end users, is included.
- **Governance.** System governance should have transparent decision and rule-making processes that support public policy objectives as well as the system's own objectives. Representation from all stakeholders is also included.

Given these attributes, the system is expected to be a platform for innovation. Other valuable performance characteristics include:

- **Integration.** The new network must connect to existing online and mobile platforms.
- **Sender Initiation.** The sender controls transaction initiation via online or mobile interface, which only takes place when good funds are available in the sender's account.
- **Certainty.** Both the sender and receiver are given immediate payment notification.
- **Commercial Payments.** Unlike P2P-focused methods, the new system should support supply chain transactions including e-invoicing, full remittance data and payment delivery confirmation.

When the Task Force completes its work in 2017, the final recommendations will represent the collective work of 320 industry representatives including payment companies, technology vendors, academics, and a range of financial institutions including over 12 credit unions.

Key Credit Union Considerations for Faster Payments

- There's no mandate. Participation will be voluntary.
- Unlike the ACH and wire systems, the Fed is not planning to be a system operator. This may be a concern for credit unions as they have traditionally made use of the Fed as their ACH operator of choice.
- There is no interoperability requirement. Today's check and ACH seamlessly exchange payments because every financial institution is a member of that network. Initially, universal participation in faster payments appears unlikely.
- There are no decisions about a directory service in the United States.

Any linking to a recipient's mobile phone number, for example, may have to be done at the financial institution level or via other services like Zelle. Multiple, interconnecting directories may be needed.

- Automated access to the deposit account will be necessary. Before funds can be sent, the financial institution must confirm that funds are available in the account. That capability is already in place for debit card-based transactions, but real-time access to deposit balances outside of the debit platform may have to be built and a different set of service level agreements created.

The Marketplace for Faster

The U.S. move to "faster" is traveling along two tracks. The first is the development of new payment systems that push value between accounts at financial institutions at real-time speeds. The second is the use of card network capabilities to push funds to the recipient's debit or credit card account. A third, related but not real-time, is Same Day ACH. Let's address them in order.

Track 1 – Real-Time Account-to-Account Systems

The U.S. now has two competitive real-time "push payment" or instant credit systems coming online. The first is called Zelle, the consumer-facing brand that participating financial institutions will use with the service. Zelle's financial connections are built on a switch and a common set of rules among its financial institution owners. Think of Zelle as a consumer brand for the new payment network running on the switch formerly called clearXchange, now carrying some $175 million in transactions per day.

The second system, set to launch in the first half of 2017, is an entirely new system called Real Time Payments (RTP) from TCH. Designed to meet the performance criteria enumerated by the Faster Payments Task Force, RTP delivers instant clearing and fast settlement between financial institution accounts. RTP is a new set of payment rails and, unlike Zelle, not a customer-facing brand.

Let's Take a Deeper Dive Into Each System

Zelle Network. An emerging solution for credit union consideration is a faster money payments service called Zelle, operated by Early Warning Services. Zelle is tuned for mobile use via a financial institution's mobile app and enables people to send money using only a recipient's email address or cell phone number. Money is moved two ways. First, money moves among participating institutions via the internal payment switch. The second option allows this network to send funds to any bank account using the "push-to-card" capability of Visa Direct and Mastercard Send™ to credit money to any debit card.

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Presently, Zelle network members include Bank of America, BB&T, Capital One, JPMorgan Chase and Wells Fargo (that collectively reach nearly two-thirds of the digital banking market) as well as credit unions like BECU. FIS, Jack Henry, and Fiserv have agreements with Zelle to act as connection points into the Zelle network. Many industry observers see Zelle as the likely "go-to" network for person-to-person (P2P) payments. Zelle's owner, Early Warning Services, also expects usage to grow in consumer bill payments and government-to-consumer payments.

Besides the brand name, Zelle is a set of product features. Zelle provides instant payments among network participants through a multilateral user agreement that guarantees settlement among participants. Note that this is not instant settlement. The Zelle clearing message is instant, allowing the receiver's financial institution to provide essentially immediate funds availability to the end recipient. Participating financial institutions then settle with one another at more traditional speeds.

TCH Real-Time Payments System. The approach adopted by TCH, the EFT processor owned by 24 of the largest commercial banks, is to build a new system with technology designed for instant payment clearing and settlement. The solution chosen by TCH was developed by VocaLink, the operator of the UK's Faster Payments 24x7 payment rails (Mastercard will soon own a majority interest in VocaLink). This new payment system will be based on ISO 20022 which provides the ability to include extensive data about the payment along with the payment itself, a feature of particular interest for business-to-business payments where remittance data is so important.

Like Zelle, RTP will encourage financial institutions to connect to its switch. Again like Zelle, other, typically smaller, financial institutions will connect via core processors like FIS and Fiserv to create ubiquity. FIS plans to link the new system to its U.S. market base of more than 3,000 financial institutions. The software it acquired from Clear2Pay may well provide those linkages. Jack Henry and Associates (JHA) also is participating. Its JHA Payments Solutions group plans to provide connectivity between TCH's new system and JHA's network of more than 7,600 bank and credit union members.

TCH is forecasting some 8 billion transactions per year by 2022 with 75% of them involving business payments, presumably representing a revenue opportunity for participants. Hard to monetize person-to-person transfers are expected to account for fewer than 2 billion of those transactions.

Track 2 – Pull, then Push-to-Card Systems

The other track relies on the innovative use of card network systems. Typically card transactions "pull" or debit the payer account but the Mastercard Send and Visa Direct services add the ability to push value from a funding account to a card account over their familiar and widespread card network rails. Visa and Mastercard offer this capability as a white label service to originators.

The originator of these "pull, then push" transactions may be an issuing bank, an acquirer, a merchant, a government agency, or, a fintech services provider such as Venmo. The originator's function includes offering the service to its customer through a mobile app, a web page, a kiosk, etc. as well as gathering data about the sender and the purpose of the transaction to provide to the network for decisioning purposes.

These are two-step transactions. Consider this example of a P2P funds transfer between Visa card accountholders. Using Visa Direct's internal programming functions, the originator first submits a request to the Visa network to pull money from the sender's debit card account. This first step funds the transaction (the sender could also choose to draw funds from a bank account provided the account holder has provided approval) using the familiar "pull" of card transactions. Once the network responds positively to the funding request, the originator's second step is to submit a push funds request to the network. If all is correct, the funds are credited to the recipient's account via his debit card.

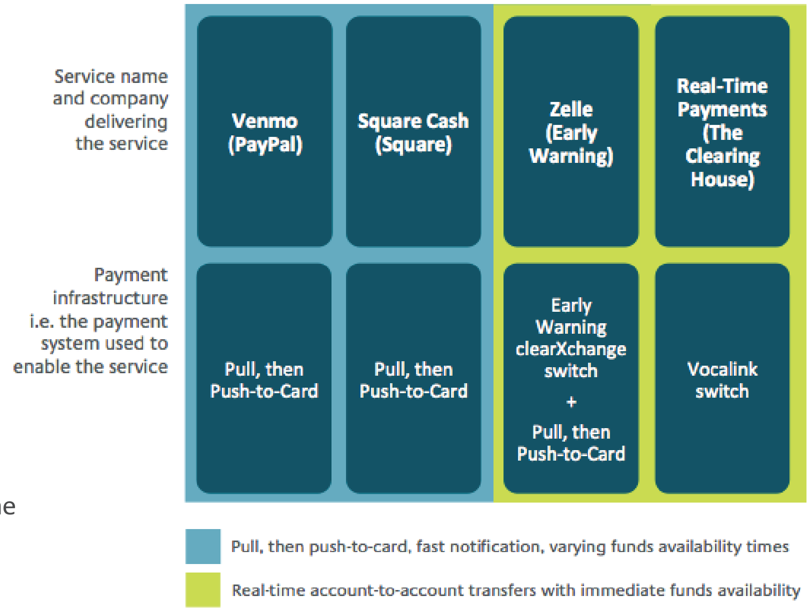
The card brands have made major efforts to software-enable this capability so that originators can create a wide range of customer-facing services addressing multiple use cases.

Card economics are, of course, advantageous to credit unions which may make these "push, then pull" transactions attractive. In Venmo's case, the company charges 3% when a credit card funds the transfer in order to cover Venmo's interchange costs. Transactions funded by debit card are free to the Venmo user, but Venmo absorbs the cost of funding the transaction, including the interchange that is passed to the issuer.

The recent partnerships between Visa and PayPal—and Mastercard and PayPal—suggest a greater future emphasis by the card networks on their "push-to-card" capabilities, a focus that may be viewed as both a competitive response and a coexistence strategy employed by the brands to live with other systems like Early Warning's Zelle.

Comparing the Systems

Each of the two models and solutions that use them have desirable attributes. Each, however, has the task of creating ubiquity and addressing cost considerations for participating financial institutions. Although we anticipate that Zelle will be the go-to solution for P2P and TCH's RTP for B2B, it is market adoption that will truly define use cases. Because of this competition's early stage, it's still unclear which of the two models or solutions will dominate bill payment.



Of course, new software is required to deliver these services to credit union members, likely through the credit union's mobile or online interface. These offerings, therefore, have considerable work ahead of them. Brand building must be done to engage the Network Effect—the fact that a network's value grows with participation because the number of users matter with money transfer systems, just as it does with social media. Other considerations include transaction costs, implementation costs, settlement and transaction risk, speed of funds availability guarantees, and technical concerns regarding ease of integration and the user interface exposed to members. This is a multi-step challenge.

Not Real-Time – Same Day ACH

An additional option competing for market traction is the long-awaited enhancement to the ACH network called Same Day ACH. The ACH system has long been exclusively a once a day, overnight batch process. Beginning September 2016, NACHA's Same Day ACH service started processing ACH credits twice a day. By adding more settlement windows and introducing ACH debit capabilities in September 2017, Same Day ACH will increase its speed of clearing and settlement.

Same Day ACH advantages include ubiquity because most financial institutions are already active users of the ACH system. It also offers a $0.052 fee to the receiving institution. Countervailing factors for Same Day ACH include its coming requirement for financial institutions to post all transactions by the close of business day and the need to build a member-facing service, minimally a user interface and user agreements, to take advantage of it.

Same Day ACH is a big improvement for the ACH network. The larger questions include which use cases are better suited to its faster, but not real-time, payment capability and how it will compete with the truly faster systems. In its second month of operation, 49% of volume by transaction count was direct deposit, primarily pension payments and emergency payroll. B2B payments made up 36% of transactions and P2P payments followed with 13%. This mix will shift over time as the performance characteristics and economics of competing systems become clear.

How Faster Money Could Affect Credit Unions

The faster money marketplace is already competitive. Although it is too early to declare anyone a winner, the industry is aligning around faster clearing and settlement. Given the level of activity and the size of the entities involved, credit unions should plan for the market to evolve quickly once the real-time payment systems are up and running.

We expect rapid use case evolution because new payment systems tend to gain traction in unanticipated ways and in unexpected niches. The P2P services offered by core processors were supposed to be used for splitting the dinner bill; their real use turned out to be in splitting the rent. Venmo was for Millennials to pay back friends; soon it could be about paying a merchant.

Interchange is Safe Today

The good news is that, over the next five years or so, credit unions have, for several reasons, little to fear from faster money solutions cannibalizing interchange revenues. The “pull, then push” card transaction will generally provide interchange. Looking at the U.K.’s Faster Payments account-to-account system, after eight years of operations, its program to support consumer-to-merchant transactions remains nascent. Market complexities in the United States and financial institution reluctance to reduce interchange revenues will similarly slow faster account-to-account consumer-to-merchant payments. Further, if there is an interchange component at or near the level for cards, merchants will be less interested in accepting the new payment methods.

Credit Unions: Get Ready

This activity means credit unions have to begin plotting their strategies. Now that credit unions have options to meet member demand for moving money faster, which services best meet those member needs? That’s the question that can only be answered by careful preparation. Credit unions should take these five steps:

- **Ask What Members Want.** Find out what use cases are most appealing to your members. How does that vary by demographic? What are the economic options? Consider possible future scenarios to focus planning and pre-allocate resources. What happens if access to a new system is delayed? What other services could be put in place? How would you deliver one or more of these services? For those credit unions serving businesses, what are the implications for B2B transactions? Put these planning exercises on your calendar now.

- **Find Allies.** Act as an Industry. A national strategy built by and in conjunction with all credit unions could be fruitful. This could take multiple paths including how to ensure connectivity to these "faster" systems or the rollout of a credit union-branded service offering. Can the industry act to encourage TCH and Zelle to interoperate? A long shot effort could be to persuade the Fed to change direction and act as an operator. Competition usually keeps prices lower. For smaller institutions, direct access to the Federal Reserve operated ACH has simplified operations and kept costs low. If credit unions or their service providers must connect to the faster money services via intermediaries, costs could be higher and benefits reduced.

- **Monitor TCH. And Zelle.** The credit union industry should keep a close eye on TCH's RTP system, especially regarding system access and pricing. With overlapping ownership among the largest financial institutions, both TCH and Zelle could have an incentive to tilt their business models to favor their owners. Should credit unions access both Zelle and TCH? A major deciding factor could be the system chosen by the credit union's bill pay provider.

- **Learn by Doing.** Find a use case with traction for your members and deploy it. Learn from your members. Gain the experience your organization needs by putting new digital products and services into members' hands. Satisfying members today is a combination of personal and digital skills. Build up your digital muscles through the rollout of a new digital service.

- **Use Fraud Controls.** Hackers love nothing better than an untested system, especially when it enables them to immediately send money to a destination they control. Establishing strong controls from the outset, especially against account takeover, will be essential.

Final Thoughts

The challenge for credit unions, and all financial institutions, is staying relevant in an increasingly competitive fintech market. Members already use non-traditional services to move money in apparent real-time fashion. There is no alternative to giving members innovative services – it is a requirement, not an option. Yet given this market's swift pace of change, careful evaluation of provider options as well as member needs is critical.

The credit union's longstanding advantage of relationship-driven financial services is powerful. But augmenting that traditional role with digital services strengthens the credit union's competitive posture. Now, planning for new digital services must include "faster" methods of moving member money. Account holders already want faster money, and credit unions will need to consider including faster money movement as part of their overall strategies.

About Glenbrook Partners

Founded in 2001, Glenbrook is a payments industry strategy consulting and research firm. The firm brings its clients a unique combination of our specialized skills in payments, many years of hands-on experience in the field, and our network of professional relationships.

Glenbrook serves payments professionals in many different kinds of companies, including payments services providers, card networks, technology and risk management companies, financial institutions, merchants, and corporate treasury managers. Glenbrook enjoys meeting and working with start-ups in the industry as well as managers from leading companies that are looking to innovate.

Glenbrook's team is composed of executives with broad exposure to many facets of the payments industry, including business management, marketing, technology, operations, and risk management.

Glenbrook offers our clients strategy consulting, research, competitive intelligence, and industry education programs. Glenbrook also facilitates industry collaborations and provides landscape overviews of emerging payments.

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