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White Paper

Real-Time Payments and Settlement  
Comes to the United States



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How U.S. Banks Can Realize the Full Opportunities of Immediate Payments  
for Their Customers

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## Introduction: The Global Success Story of Real-Time Payments

Around the world, the momentum behind the move to real-time payments (RTP) – or “Immediate Payments,” as they’re often termed – is unstoppable and growing. Today, there are well over 20 immediate payments systems in operation and planning around the world, and their impact has been dramatic. As recently as a decade ago, it was almost impossible for consumers and most businesses to make an immediate transfer of funds, so that the money was available and usable instantaneously by the recipient. Today, this capability is an everyday reality for millions of people and businesses worldwide – with the result that they now wonder how they ever lived or did business without it.

The ongoing roll-out of RTP capabilities and infrastructures in countries around the world is illustrated in Figure 1, as more payment schemes or services are introduced to mirror today’s “round-the-clock”, 24/7, real-time commercial environment. The beginnings of RTP were seen in Japan in the mid-1970s, but a step-change came in 2006, when the

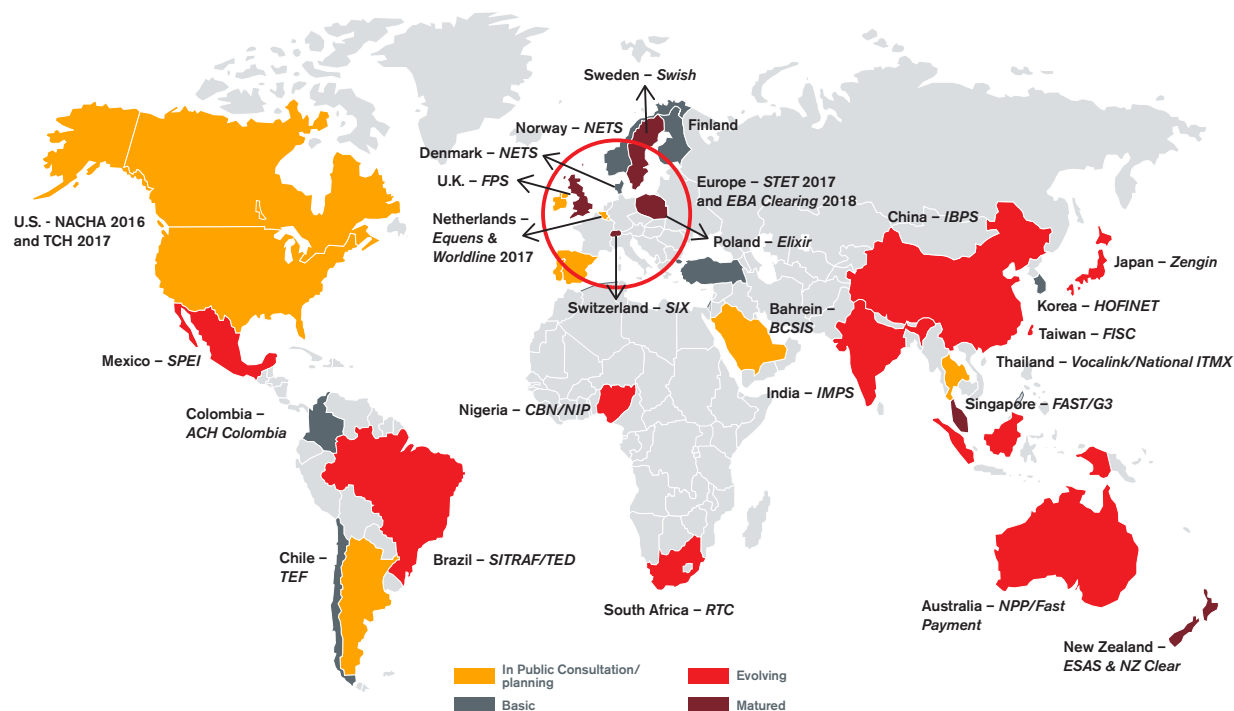
## What is “Real-Time Payments”?

Today, variations of the Real-Time Payments (RTP) theme are rolling out in ever more countries around the world. RTP generally refers to credit transfers where a customer of one bank initiates a payment to credit an account at another bank. The credit is then validated within seconds and a confirmation is sent back to the originating bank and then posted to the account with settlement taking place instantaneously. This is the future of payments: it allows for the transfer of money from one account to another immediately, with certainty and convenience, and at a low cost – bringing major benefits for banks and their customers. Now, many of those benefits are coming to banks and customers in the U.S. for the first time.

first recognizable modern Immediate Payments schemes were rolled out in South Africa and Mexico. These early adopters were soon followed by the U.K., which introduced the U.K. Faster Payments scheme in 2008.

Following these successes, further RTP schemes were introduced in Poland in 2012, Sweden in 2013, and

**Figure 1: RTP Adoption Around the World: The Race to Real-Time and 24x7 Availability<sup>1</sup>**



<sup>1</sup>Source: Capgemini Financial Services Analysis 2015; <http://immediatepayments.vocalink.com/>; <http://www.finextra.com/news/fullstory.aspx?newsitemid=26105&topic=retail>; Immediate/Faster Payments - Innovation is Knocking White Paper, Fundtech (now part of D+H), Swift.

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Singapore in 2014. Australia's New Payments Platform (NPP) is currently being prepared for launch in 2017, as is a system for the Single Euro Payments Area (SEPA), with the Netherlands and other EU countries also considering developing their own Immediate Payments infrastructures. A further group of countries – including Thailand and Malaysia – have systems with elements of Immediate Payments, but have yet to experience universal adoption.

## **Immediate Payments Reaches its Biggest Installment Yet: the U.S.**

To date, the U.S. has been conspicuous in its absence from the list of countries embracing RTP. But this situation is changing fast, with a surge of activity and initiatives under way to bring payments in the U.S. up to speed with the rest of the world. These moves involve a broad range of players, and an approach which is specifically geared to the unique needs and requirements of the U.S. market.

As in other countries, the central bank has taken steps to facilitate the move to RTP and has collaborated with the industry to do so. The U.S. Federal Reserve has established the Fed Faster Payments Task Force to identify effective approaches for implementing safe, ubiquitous, faster payment capabilities. However, while the central banks in other countries have generally mandated and controlled the adoption of RTP, the Federal Reserve is taking a more facilitative approach, by publishing Faster Payments Effectiveness Criteria and encouraging various industry parties to develop solutions to fulfill them. The Fed is also providing leadership on ISO20022 adoption, and considering the necessary improvements to the National Settlement Service.

The Fed's approach to RTP has put the onus on the private sector to innovate and develop solutions that create a powerful business case for adoption, generate a wide array of strong use cases, and thereby attract the widest possible adoption by banks and other market participants. At the same time, the Fed is expanding its scope from interbank payments to the end-to-end payments process – all the way from the point of origination to the point of receipt, including payment notification, reconciliation and interbank settlement – while maintaining its focus on a high level of safety and accessibility.

The Fed is encouraging the private sector to deliver RTP solutions that will deliver against these goals, and will only get involved in providing RTP services if those private sector solutions are insufficient. All of this underlines that when it comes to RTP in the U.S., the market – supported, supplied and enabled by the private sector – will decide the best way forward.

## **A Wide Range of Participants – and a Choice of Complementary Solutions**

The market has taken up the RTP challenge with enthusiasm, giving rise to several initiatives – with The Clearing House, Early Warning Services, NACHA, and many others looking to introduce initiatives enabling or facilitating faster payments. The U.S.'s evolving RTP ecosystem also encompasses major payments solution providers – including D+H – as well as banks, card operators, and FinTech start-ups.

This diversity of participants and initiatives may create some challenges with coordination among some market observers, but it doesn't have to. The common goal is to offer end-to-end solutions where the customer undertaking a transaction will receive a message back within five to ten seconds confirming that the payment has been made and the money is with the recipient. The end-customer should neither know nor care how this comes about – and achieving it will inevitably involve collaboration between a number of different parties, handling different parts of the value chain and/or offering solutions that meet particular needs.

What matters for banks is choosing the right tools to deliver the specific use case with the right customer experience. So the RTP payment solutions offered – for example – by The Clearing House and Early Warning Services should not be seen as competitive with each other but complementary, and part of a healthy and vibrant market made up of different options to meet different needs. Banks should bear in mind the differences between the various solutions when developing their RTP strategies. Against this background, we'll now take a look at the current state and next steps for faster money movements in the U.S.



## Current State and Next Steps for U.S. Faster Money Movements

### Multiple Schemes Come to Market

Today, settlement of payments in the U.S. can take two to three days. Even FinTech and mobile app providers who deliver an appearance of immediate payments to their users use traditional banking rails behind the scenes to settle transactions which, in many cases, result in a sub-optimal experience for the receivers. These constraints impede the always-on, 24x7 nature of today's business and lifestyles, resulting in a gap opening up between customers' expectations and the realities of U.S. payments. By the end of 2017, there will be a growing range of initiatives to speed up payments in the market.

As we highlighted earlier, the market's move toward faster payments is being encouraged by the Federal Reserve through its Faster Payments Task Force. At the same time, other market participants are making important advances:

- **NACHA** is introducing same-day ACH rules that will be effective starting from September 2016, to ensure a ubiquitous same-day capability for virtually any ACH transaction it carries. As an initiative that takes a step towards making payments faster, the new rule builds on the existing, next-day ACH capabilities by establishing two new same-day settlement windows, and requiring that all Receiving Depository Financial Institutions (RDFIs) receive same-day transactions and provide faster funds availability to customers. The Federal Reserve had previously offered an optional same-day ACH solution for several years, but because it was optional, the adoption was slow. Now that the "receive" element is mandatory and there is compensation for senders, the expected adoption and resultant ubiquity will be much higher.
- **Early Warning Services** is a fraud prevention and risk management operation owned jointly by Bank of America, BB&T, Capital One, JPMorgan Chase, U.S. Bank, PNC and Wells Fargo. It has merged with the bank-owned digital payments network clearXchange to build a real-time payments solution open to banks and credit unions. The initial phase went live with banks in the first quarter of 2016, enabling instantaneous P2P payments and check deposits.
- **The Clearing House** (TCH) is building an industrial-strength clearing and settlement system to support

RTP, enabling consumers and businesses to send and receive payments instantly, directly from their accounts at financial institutions. Scheduled for launch in 2017, TCH's system will offer real-time settlement and the ability to bundle non-payment messaging such as invoices with the core transaction. TCH is building the system based on technology from VocaLink, a U.K.-based provider that implemented the U.K. Faster Payments Scheme and Singapore's FAST payment scheme. TCH's solution is the most ambitious in terms of reach and potential ubiquity, and is the one we will focus on most closely in this paper.

More RTP initiatives could yet emerge from other market participants such as card processing companies. And a growing number of FinTech start-ups and challengers are also closely involved in the move to RTP, including the likes of Dwolla, Ripple, and WingCash. However, as we stressed earlier, it's important to see the various participants not as incompatible competitors, but as complementary providers who can each play a role in creating collaborative solutions for customers.

### As Banks Weigh up their Options

As the momentum behind RTP in the U.S. builds, banks and other financial institutions of all sizes and in all regions of the country are evaluating the options and planning their strategies. Our conversations across the industry confirm that some banks remain unconvinced of the business case for investing in RTP capabilities, and even of whether their customers actually want them. Banks have also been unnerved by some of the sky-high estimates for how much it will cost to implement RTP. Figures like U.S. \$60m to U.S. \$90m have been quoted for some of the largest banks. In our view, it may cost much less than this.

Indeed, we would caution any bank against a decision to stay out of the RTP revolution. Experience in other geographies has shown that once bank customers – whether consumers or businesses – experience true RTP, they never look back. And in an era where consumers are accustomed to the convenience and immediacy of online services and mobile apps, the idea that payments take two or three days to settle is something that customers will not put up with for long, whether they're individuals or businesses.

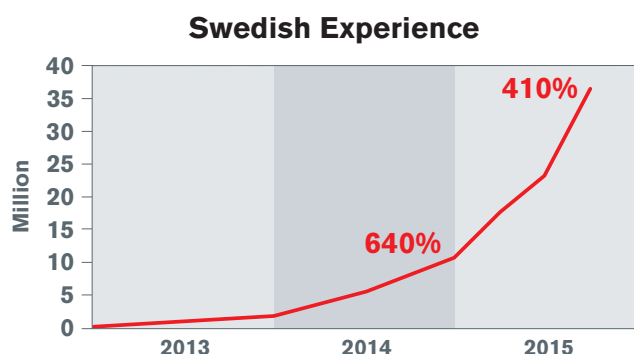
Like streamed music or cameras on phones, Immediate Payments is something that consumers do not know they need until they get it. This adoption pattern is underlined



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by experience in other markets, including the rapid take-up of RTP in Sweden (see Figure 2). And in a competitive market for payments services, those banks that fall behind in offering the best options to customers may struggle to retain them.

**Figure 2: The Swedish Experience: Adoption Curve for RTP**



<sup>1</sup>Source: Bankgirot presentation, D+H Executive Forum, Dec. 2015.

## Capitalizing on Late Adoption to Tackle the U.S.'s Low Banking Density

As U.S. banks decide on their strategies, the diversity of choices in the U.S.'s evolving RTP ecosystem serves to vindicate the Fed's distinctive market-based approach. The Fed's market-led strategy is all the more appropriate for the U.S. given the unique nature of its payments market, with well over 10,000 banks and comparable institutions. The number of institutions involved is far greater than in other countries, and means that establishing ubiquitous RTP is particularly challenging.

In territories like the U.K. and Singapore, it's possible to reach near-ubiquity in payments because of the relatively small number of institutions in these regions. But in the U.S., more banks must participate in order to reach critical mass nationally. This underscores the vital importance of third-party payments service and technology providers to help service the need. The challenges around achieving ubiquity also help us to understand why the U.S. did not attempt to join the first ranks of RTP adopters.

## And Learn Lessons from Countries that Have Already Taken the Plunge

Equally important, as a relatively late adopter, the Fed and RTP providers in the U.S. can learn lessons from previous schemes, enabling them to avoid pitfalls and apply learnings about what works and what doesn't. For example, other schemes globally have found that including non-payments messaging around the core immediate payments message provides a valuable building-block for banks to offer their customers wider services alongside the transaction. This capability is being built into U.S. solutions such as The Clearing House's, along with anti-fraud measures reflecting lessons learned elsewhere.

Finally, by moving to RTP now rather than a few years ago, the U.S. is among the first group of countries to be implementing RTP after the global smartphone revolution. This means that – unlike schemes created in other countries in the past – the whole environment is being designed and built on the knowledge that every consumer has a powerful computer and payments device in his or her hand. While other RTP system have had to catch up with the mobile payments explosion, the U.S. can incorporate it from the start. This is yet another reason why partnerships with specialist payments system providers will be so vital for banks to create the solutions their customers want.

## The Benefits and Use Cases of RTP

### Delivering Benefits Beyond Speed

As countries around the world have discovered, real-time payments is an innovation with implications that go far beyond enabling faster transactions. Everywhere it's been introduced, RTP has been recognized as an enabler of new modes of commerce, bringing significant benefits both to the banking industry and society at large. It now promises to bring these benefits to the U.S.

Until RTP is introduced, it's easy to underestimate its impact for customers. For some customers in some circumstances, having verification that money is on its way – and will arrive in two to three days – may be enough. But many customers need to check their balance before withdrawing money from ATMs. And, in some cases, moving money quickly is imperative: for example, think of a small business paying a supplier to ship goods immediately, or someone sending money to family members to pay for a cab home in the case of an emergency.



Also, RTP is about much more than just speed. Through real-time settlement and notification to the payer, it not only provides certainty that the money has arrived, but also removes the temporal risk created by the traditional time delay between payment and settlement. And it opens the way to integrate a host of value-added services around the core transaction, such as electronic invoice presentment and payment (EIPP), and the inclusion of tracking numbers to keep tabs on shipments. While such capabilities are available today, they're generally only accessible outside the payments system. Putting them inside the process transforms ease and convenience for everyone. In addition, providing capabilities such as EBPP inside the payment system is also a more secure approach than delivering them through less secure channels such as email.

Today, banks are considering such capabilities to help them identify and prioritize the use cases for RTP in different segments of the customer base. For many, the first use cases will be areas such as consumer P2P payments. Beyond that, they're also looking to identify opportunities with business customers, such as enabling corporates to link RTP directly and in real-time into their cash and accounts receivables systems, enabling instantaneous updates and a constant real-time view of their position. To do this, banks may need to partner with ERP providers – a further example of the importance of collaboration in the RTP ecosystem.

### To Address Previously Unmet Needs

For any real-time payments system to deliver RTP benefits to as many banks and customers as possible, it must also be designed to address unmet customer needs across a wide range of use cases. It also needs to provide a platform for product innovation so that new customer needs can be met – and new products and services developed – in the future.



### Benefits for Consumers

- Payment transactions are immediate
- Payment speed: 5-15 seconds
- Funds are available immediately for use
- Mobile payments are faster and easier – including payments from mobile number to mobile number

### Benefits for Businesses

- Access to sales proceeds is accelerated
- Liquidity forecasting is improved
- Cash concentration is improved
- Risk and float time are reduced
- Delivery of goods or services is faster

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**Figure 3: A Selection of RTP Use Cases**

## Business to Business (B2B)



A small business paying an urgent invoice in order to receive goods or services



A restaurateur who pays for farm-fresh produce from the local farmer to serve that evening's dinner specials

## Person to Person (P2P)



A head of household sending emergency funds to a family member on vacation



College roommates splitting monthly rent and utility payments

## Consumer to Business (C2B)



A busy working individual paying for general services around the house such as the gardener, cleaning services, or child care provider



A day trader sending real-time money transfers to his or her investment account to take advantage of the most recent market swing

## Business to Consumer (B2C)



A utility company requesting payment for services from a business or consumer



A retail bank distributing personal loan proceeds to a dealership on behalf of a customer who is at the showroom buying a new car



An insurance company adjuster reviewing a claim, determining a settlement amount, and immediately providing funds to the policy holder



A small businessman who is paying temporary employee salaries or tips on an ad hoc basis



A large corporation paying employees for travel expenses in time for payment of corporate credit cards

## Government to Consumer/Consumer to Government (G2C/C2G)



A government agency paying out emergency disaster relief funds to citizens impacted by a natural disaster



A tax payer making his or her tax payment in time for the April 15 deadline

Source: The Clearing House

The solution should become as ubiquitous as possible, and support different segments and transaction types – including business-to-business (B2B) business-to-consumer (B2C), peer-to-peer (P2P), consumer-to-business (C2B) and government-to-consumer (G2C) and consumer-to-government (C2G). The schematic in Figure 3 shows a broad array of use cases for RTP – all delivering benefits for customers on both sides of the transaction, and enhancing the service from the bank itself.

## An Overview of The Clearing House's RTP Infrastructure

In developing its RTP solution, The Clearing House (TCH) set out to build a platform for future innovation in payments products founded on four key principles:

- **Ubiquity** – Making it accessible to all financial institutions, regardless of size or charter type, enabling the solution to reach the vast majority of U.S. account holders.
- **Extensibility** – Providing functionality beyond basic payments to support value-added products through rich, flexible messaging.

- **Adaptability** – A flexible architecture able to adapt to changing market needs.
- **Global standards** – Conformance to ISO 20022 payment formats means financial institutions and customers can use the same technology and processes across borders, and eventually support expansion into international payments.

By applying these principles, TCH has created a solution that's immediate, with the ability to send or receive payments 24x7. It also provides real-time access to payment status information for senders and receivers, and immediate availability of funds for receivers. It's also safe, being credits-only rather than debits, and with features including irrevocability of payments, real-time settlement that reduces temporal risk and support for anti-fraud, anti-money laundering and OFAC/sanctions compliance processes. And it has an extensive set of payment and non-payment messages, and global compatibility consistent with domestic requirements.





## Differentiators From Previous Schemes

To achieve these qualities, TCH's RTP solution has broken new ground in several ways compared to previous schemes. Two of these differences are particularly instrumental. The first is that non-payment functionality has been built in from the ground up, reflecting TCH's expectation that the system will carry as many non-payments messages as payment messages, such as shipping details and requests for payment. This will enable users to put together complex, multi-part transactions, using building-blocks to build both the payments component and the surrounding services.

The other major differentiator of TCH's solution is the sheer scale involved in creating a ubiquitous RTP scheme in the U.S. The scale issue is not so much the number of payments, but the great number of participating financial institutions – which is several magnitudes greater than in any other territory where immediate payments infrastructures have been established to date. To overcome this challenge, TCH's solution has been designed to ease the access and enrollment issues that have emerged with schemes elsewhere in the world for some – especially smaller – institutions. The goal is to create a truly national system that reaches far beyond TCH's member base.

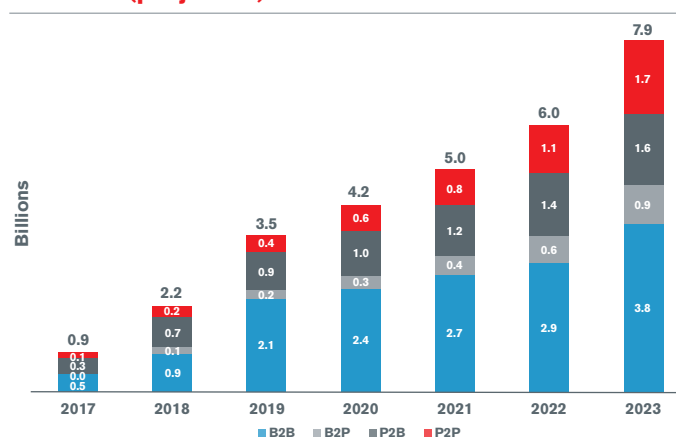
## Underpinned by a Commitment to Partnering

To achieve this type of reach, TCH is committing itself to a partner model with a range of third-party providers who can help even the smallest and most local financial institutions to gain the type of access that best suits their business and customer base. With TCH's scheme, smaller institutions will be able to connect directly to larger banks, credit institutions, and partners – including D+H – which are set to play a major role in enabling it to reach the rest of the market.

TCH has also engaged with the technology community, both to help broaden access to the wider market, and to build links to scheme members at an early stage so that they can start innovating products and services which can be offered to their customers over the RTP infrastructure. All of this reflects lessons from previous implementations, which have led TCH to decide to avoid a “build it and they will come” approach. Instead, the aim is to have a substantial and active user base in place from day one of go-live.

Looking beyond the 2017 launch, TCH projects that RTP transactions will rise strongly through the subsequent

**Figure 4: U.S. Real-Time Payments Transaction Volumes (projected)**



Source: The Clearing House Real-time Payments Briefing, Feb 2016

years (see Figure 4). As the chart shows, TCH believes the biggest demand will be for B2B payments, while all use cases will generate substantial volumes.

## What Banks Need to do to Prepare for TCH Real-Time Payments

### Take a Look Through the Customer's Eyes

For banks and other financial institutions looking to get ready for the new world of TCH real-time payments, the first step is to avoid thinking of RTP as a technology change. Instead, they should look from their customers' point of view, and think through what unmet needs RTP could satisfy, both in terms of financial value and service experience. How will customers want to use the service, and what for? What impacts will it have on their everyday lives or business operations? What use cases represent those to be harvested first?

Clearly, the answers will vary between different customers segments and different banks. And these insights will in turn enable banks to develop ideas for the products and services they can offer to realize these opportunities. By understanding customer needs and the solutions to meet them, banks can then use this understanding to drive the technical build-out.

### And Proceed at Your Own Pace

In approaching the move to RTP, it's also important to appreciate that not everything must go real-time immediately

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– and that the focus should remain on supporting customers in what they want to do. Starting off by just receiving rather than transmitting RTP messages will benefit a bank's customers. The bank can then decide, on its own time, whether or not it wants to send messages as well.

This will require the bank to answer a number of follow up questions. Does it want to integrate bill payment services? What additional solutions would its business customers use? Are there any vertical industries it could target with RTP services? Would its retail customers want more advanced mobile banking and payment solutions? In answering all these questions, it's vital to start with customer needs rather than technology.

## Busting Some of the Myths about RTP

It's also important for banks to form their own view on some of the myths that have sprung up around RTP. One is that it will cannibalize wire transfer volumes, causing them to collapse. While there may be some marginal impact on wire traffic, experience in other markets, such as the U.K., suggests that this will probably be minimal, because wire transfers, using BACS, fulfill a different purpose from RTP (see Figure 5). The economics of wire transfers mean they're generally high-value – and if a customer is using them for lower-value transactions, then maybe they shouldn't be.

As we highlighted earlier, the key is to use the right tools for the right job. Many clients feel comfortable with their well-established wire transfer processes, and will continue to use them on the theory that something that isn't broken

doesn't need fixing. Similarly, batch ACH will continue after RTP is launched, because it's an efficient way of handling some processes. Indeed, one area where banks may be able to improve their service to businesses post-RTP is in advising them on the channel which is most appropriate for each type of transaction.

A further commonly-raised concern is that there may be a heightened risk of fraud in an RTP environment, on the grounds that faster payments might enable faster theft by criminals. However, compromising one sender's account results in a single fraud event, while compromising an account authorized for debits can create thousands of simultaneous incidents. Given this, it's important to note that transactions on TCH's RTP system will be credit transfers – an approach that inherently limits the opportunities for fraudsters. Customers are also protected by the banks' know-your-customer (KYC) and wider security controls. Assuming these controls are operating properly, TCH's RTP infrastructure will be a safe payments system – especially given the removal of temporal risk through real-time settlement.

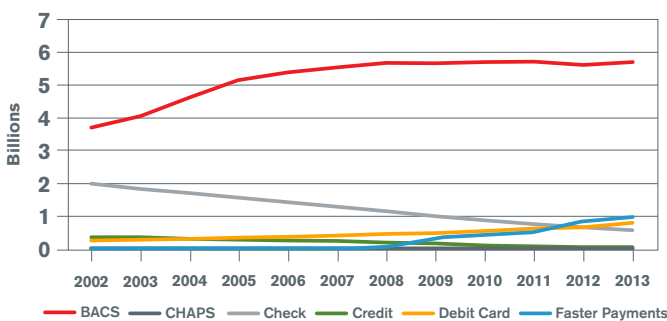
Interoperability with other systems may be a further area of concern – but again TCH's solution stands up to scrutiny. While some banks may choose to use other systems, TCH's basis of industry-standard ISO 20022 formats and openness to partnerships with third-party technology providers means that banks will be able to link together the different platforms. And while TCH's initial focus will be domestic U.S. payments, its base of industry standards means its system will be easily connectable internationally to platforms such as U.K. Faster Payments and the Eurozone's SEPA.

## D+H's Solution for Immediate Payments

D+H provides Immediate or Faster Payments capability as a module of its global payments solution. D+H has designed the solution to address the U.S.'s unique needs, requirements and characteristics to participate in real-time payments;

- The solution provides for real-time clearing and settlement; 24/7 availability any day of the week; certainty and transparency of execution and use of international standards (such as ISO20022);
- D+H provides financial institutions with a complete solution for their Immediate Payment needs so banks of any size can participate, whether using our multi-rail payments hub solution, a smart gateway or with an aggregator model;
- D+H has partnered with The Clearing House to provide real-time capabilities and accessibility, and will support NACHA Same Day ACH;

**Figure 5: U.K. Trends**



Sources (U.K. Data): U.K. Payments Council & U.K. Cards Association; (U.S. Data) 2013 Federal Reserve Payments Study & FedWire and CHIPS (Wire).



- The solution suite can be deployed once and then support new Immediate Payment schemes as they emerge domestically and globally;
- The solution suite is designed to integrate with channels and back-office systems and to provide stand in/support processing in the event that the financial institution's infrastructure cannot accommodate the requirements of 24/7 near real-time processing;
- The solution is designed with growth and flexibility in mind; able to accommodate exponential volume growth observed with the introduction of Immediate Payments in other geographies, and able to rapidly respond to new opportunities and customer requirements in weeks rather than months or years. Financial institutions which are able to offer this level of service will generate new revenue streams and new fee income. Financial institutions that don't provide these services are likely to lose customers in a competitive market.

## Key Features of the Solution Include:

- Instant processing of high volumes of payments with no downtime and with the highest levels of security and compliance;
- Legacy core systems empowered to support 24/7 immediate processing through stand-in processing. Augment and strengthen existing infrastructure, only displacing components that hinder delivery of business and customer value;
- Onboard customers your way; support their formats through transformation or enforce a single standard;
- Increase flexibility and time-to-market with new payment services and business models;
- Improve profitability through new revenue streams and cost reductions;
- Increase customer satisfaction with new products and features – from customer friendly payment tracking and other self-service options via exposed SOA services to mass-customized processing.

## D+H's Global Leadership Experience and Track Record of Successful Delivery in Real-Time Payments

D+H is committed to advancing real-time payments globally, and our payments technology currently supports millions of faster payments transactions throughout Europe and Asia every day for P2P, C2B, B2B, C2G and direct debit transactions. In the U.K,

we support two major banks on the Faster Payments Service (FPS), and in Singapore, five major banks use our technology for the country's FAST (G3) real-time payments scheme. Today, our solution powers 1.1 million FPS transactions in the U.K for one bank alone.

In Sweden, the award-winning Swish real-time payments system, powered by D+H technology, won the Celent Model Bank award for Payments Innovation in 2014. We're an active association member of: the Fed Faster Payments Task Force, Canada Payments Association, The Clearing House, NACHA, ISO20022 RTPG, and the European Banking Authority (EBA) Pan-European Open Forum, and are heavily involved in industry consultations around RTP initiatives, globally. As a provider of payments and core banking systems to thousands of U.S. financial institutions, we are proud to participate in preparing the U.S. market for this new payments reality.

## Conclusion: A Step Forward That No Financial Institution Can Afford to Ignore

In our view, the message is clear: real-time payments is an imminent reality across the U.S. And while the Federal Reserve's market-led approach means banks have a choice of whether or not to join the revolution, but those that decide not to do so will risk losing payments revenues, customers and a competitive edge.

In our view, every financial institution must think carefully to identify the use cases that RTP can fulfill for its customers – and then devise products and services to meet those needs. Armed with these insights, banks can then plan their technology build-outs, including selecting the optimal technology partners to help ensure success.

As the migration to always-on, mobile, 24x7 digital services continues in people's personal and working lives, likewise, payments is next to be addressed. And the chance to provide this for their customers is an opportunity that financial institutions across the U.S. cannot pass up.

It's time to embrace RTP – and enter the new era of payments.

#### About the Authors

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**Paul Trozzo**, Senior Vice President, Manager of Payment Strategy, PNC Bank Treasury Management Division. Prior to this, he was responsible for Product Strategy and Marketing. Mr. Trozzo has twenty five years of experience in banking and in addition to his current responsibilities, he participates in numerous payment industry work groups and committees.

#### About D+H

D+H's Global Transaction Banking Solutions Group, formerly known as Fundtech, is the leader in treasury services solutions. D+H is a leading financial technology provider the world's financial institutions rely on every day to help them grow and succeed. Our lending, core, payments, channel, optimization and treasury services solutions are trusted by nearly 8,000 banks, specialty lenders, community banks, credit unions, governments and corporations. Headquartered in Toronto, Canada, D+H has more than 5,500 employees worldwide who are passionate about partnering with clients to create forward-thinking solutions that fit their needs. With annual revenues of more than \$1 billion, D+H is recognized as one of the world's top FinTech companies on IDC Financial Insights FinTech Rankings and American Banker's FinTech Forward ranking. For more information, visit [www.dh.com](http://www.dh.com).

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#### About The Clearing House

The Clearing House is a banking association and payments company that is owned by the largest commercial banks and dates back to 1853. The Clearing House Payments Company L.L.C. owns and operates core payments system infrastructure in the United States and is currently working to modernize that infrastructure by building a new, ubiquitous, real-time payment system. The Payments Company is the only private-sector ACH and wire operator in the United States, clearing and settling nearly \$2 trillion in U.S. dollar payments each day, representing half of all commercial ACH and wire volume. Its affiliate, The Clearing House Association L.L.C., is a nonpartisan organization that engages in research, analysis, advocacy and litigation focused on financial regulation that supports a safe, sound and competitive banking system.

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