

The Brewing Rivalry for Real-Time Payments: The Few will debut FedNow next year. It will face a highly complex – and surprisingly competitive – market for the instant transfer of value.

By Eric Grover

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In the near future, most people will be able to exchange money instantly anywhere, any time.

A patchwork of competing and collaborating national and multinational instant-payment systems with very different DNA are increasing their reach, features, and use.

Open, national, and interbank real-time-payment systems are a leading category. Observers mistakenly regard them as public utilities, but competition, and in cases interoperability, between for-profit and bank-cooperative private-sector and central-bank instant-payment networks will ensure innovation, ever-increasing value, and speedy adoption.

Immediate-payment networks will benefit from building greater reach domestically and, especially, internationally. Of the 60 countries that have traditional domestic real-time interbank payment systems, the United States is shaping up to be the world's most competitive market.

Here, the payments industry is anticipating faster-payments competition between bank-owned The Clearing House Payments Co. and the Federal Reserve. A Johnny-come-lately in this business, the Fed will step into the competitive fray in 2023 with

FedNow. While it will be useful, it will not be, as the Fed in 2019 asserted to Congress, indispensable.

TCH's instant-payment system, RTP, whose development was informed and spurred by the Fed's Faster Payments Task Force, has been live since 2017. RTP reaches 61% of U.S. demand-deposit accounts. Each day FedNow isn't live increases RTP's network and experiential-capital edge, and RTP's offerings, and the RTP-based services of financial institutions, become richer.

Despite its head start, though, RTP's payment volume has been modest. There were a whopping 253 times more ACH transactions than RTP payments in 2021. There were 29.1 billion ACH payments in 2021 valued at \$72.6 trillion, of which 604 million were same-day, valued at \$944 billion.

In the second quarter of 2022, RTP did 41 million transactions for \$18 billion. Countries with more white payments space have seen greater adoption. In the mother of emerging payments markets, 647 banks using the National Payment Corp. of India's Immediate Payment Service (IMPS)—live since 2010—did 1.4 billion instant interbank payments in that same second quarter.

Meanwhile, NPCI's real-time alias-enabled Unified Payments Interface payment system did 17.4 billion transactions in the second quarter.

A Long-Term View

How will the Fed compete against its better-established rival, TCH? FedNow is piloting with banks and processors ACI Worldwide, Finastra, FIS, Fiserv, and Jack Henry to have a chance of reaching a reasonable number of DDAs out of the gate.

Some community banks and credit unions will prefer FedNow over a service supplied by TCH, owned by 24 large banks with which they compete and which they distrust.

While the central bank will initially price FedNow at parity with RTP at 4.5 cents per payment, it has a history of cutting fees to win volume. Most instant-payment networks' costs are fixed. Marginal transaction costs are close to zero. While statutorily required to set fees to recover its costs, the Fed has indicated it could take a long-term view of cost-recovery, and, consequently, price more aggressively than private-sector competitors.

The Fed, however, is not just another competitor. It's the financial system's paramount regulator, and it enjoys unlimited resources. Still, its payment operations—ACH, Fedwire, Check Services, National Settlement Services, and FedNow—don't need to be under the same roof that covers monetary policy and financial-system regulation. Spinning off payment operations would eliminate this conflict of interest and enhance competition.

For use cases such as planned payroll and bill payment, ACH is often entirely adequate. That doesn't mean, however, that immediate payments won't eventually displace traditional ACH. It's just that there's no compelling benefit to stampede adoption for some high-volume use cases.

Uneven Performance

Instant-payment networks enable financial institutions, processors, fintechs, mobile-network operators, money-transfer networks, digital wallets, and closed-loop peer-to-peer payment systems to build services for consumers and businesses.

And markets are discovering domestic and cross-border real-time-payment use cases. Such benefits as instant payments to merchants for card sales, along with immediate cross-border

remittances, insurance-claim payouts, last-minute bill payments, government relief, and payroll, are already improving people's lives.

Also, using RTP in June, a payments company called Sionic launched a "Pay-by-Bank" service for U.S. merchants. They will be able to fund cash back and discounts to incent use.

However, developing successful retail-payment schemes using faster-payment systems is difficult in mature markets like the United States and the United Kingdom. Unlike the existing card networks, these new systems don't feature—at least to start with—acceptance networks, robust consumer protection, grace periods, or rewards everywhere. Moreover, instant payments don't solve a problem paying cafés and wine bars. Granted, paying \$111,000 for a Mercedes-Benz S-Class would be another story. In this rare instance, the lower-fee RTP would be more attractive than a credit card for the dealer, and likely acceptable for the buyer.

Indeed, the performance of instant payments systems around the world has been uneven. The U.K.'s Pay-by-Bank (originally Zapp) has been a failure. However, in India, digital-wallet-anchored alternative payment systems like Google Pay, PhonePE, and Paytm make good use of the NPCI's UPI immediate-payment system.

Another promising sign is that TCH has started offering DDA tokenization—masking of sensitive account-identifying data—for use with RTP, which will improve its utility for more exposed use cases.

'The Holy Grail'

The competitive landscape of instant-payment networks includes more than RTP and FedNow.

Visa debuted its immediate credit-push system, Visa Direct, in 2014 and started pushing it in earnest in 2015. Last year, 120 million U.S. cards sent or received funds using Visa Direct. Mastercard's analog Mastercard Send went live in 2015.

Visa Direct and Mastercard Send will continue to enjoy an advantage over RTP and FedNow by serving new, nontraditional, and cross-border use cases. In the fiscal year ended September 2021, Visa Direct did 5 billion transactions globally, growing 35% year-over-year in the quarter ended that September.

Zelle launched in 2017, absorbing banks' peer-to-peer payment system clearXchange. In 2021, there were 1.8 billion real-time Zelle payments carrying \$490 billion in volume, up 49% and 59% respectively, year-over-year. FIS's RealNet, Fiserv's PopMoney, and Discover's Deliver also provide low-friction, low-cost immediate interbank payments.

Competition aside, some types of payment are harder to speed up than others. Cross-border payments, for example, have been notoriously slower and more costly than domestic payments.

Economists Ulrich Bindseil and George Pantelopoulos, in an ECB working paper called "Toward the holy grail of cross-border payments," declare "the holy grail of cross-border payments is a solution which allows cross-border payments to be (1) immediate, (2) cheap, (3) of universal reach, and (4) settle in a secure settlement medium, such as central bank money."

Planetwide, national faster-payment systems are starting to interconnect, initially on bilateral bases. The ECB's Target Instant Payment Settlement (TIPS) serves 12 euro-area countries. It's working on linking TIPS and the Riksbank's real-time payment system.

In 2021, Italy's central bank, which operates TIPS infrastructure, announced an "experiment" connecting with the Arab Regional Payments Clearing and Settlement Organization's faster-payments platform.

Cooperative EBA Clearing's RT1 provides instant payments between banks in 22 European countries.

TCH, EBA Clearing, and the global payment-messaging network Swift, will pilot immediate cross-border payments between U.S. and European banks starting in late 2022.

But southeast Asian countries lead in interconnecting national real-time payment networks. The first linkage of national instant payment systems was Singapore's PayNow to Thailand's PromptPay in April, 2021.

Indonesia's, Malaysia's, and Thailand's cross-border QR-code-keyed instant-payment systems interoperated as of January. The Philippines and Singapore plan to plug in late this year.

And Singapore and India will link their instant P2P payment systems this summer.

A 'Silver Bullet'?

But the idea of each national real-time payment system building bilateral links with every peer, planetwide, isn't optimal. Payment hubs would be more efficient. With their existing networks, Visa, Mastercard, and Swift are well-positioned to be global immediate-payment hubs. Imagine national instant-payment systems plugging into Mastercard to reach domestic systems as well as Mastercard Send and Visa Direct accounts worldwide.

Moreover, Swift and correspondent banking today have global reach and provide near-real-time cross-border payments.

Incrementally enhancing a proven global network is easier than building a new one.

A range of proprietary fintech and money-transfer systems like PayPal, Western Union, and Wise support instant or near-instant cross-border payments, and will tap other faster-payment networks to enhance their own.

Also, real-time interbank payment systems have significant barriers to entry. Systems must be built and find a path to critical mass before they can have relevance and value. Nevertheless, new systems may challenge incumbent networks, and that would benefit users with a better value and/or by pushing incumbents to improve.

Evangelists tout cryptocurrencies such as Bitcoin as the silver bullet for instant, low-cost value transfer worldwide. Given regulatory hostility, value volatility, governance and performance problems, the need to convert in and out of fiat currencies, and a lack of both network critical mass and a path to it, crypto is unlikely to play a material role.

Nascent private fiat-currency-backed stablecoins and central bank digital currencies, however, have potential. Central banks are studying, piloting, and have launched CBDCs, which are instant-payment networks.

It remains to be seen, however, whether and how central bank money that can be immediately transferred anywhere any time will be superior to existing domestic and cross-border real-time payment systems.

The greatest use of stablecoins has been trading cryptocurrencies. With greater regulatory clarity, more financial institutions will issue stablecoins, and they may come to play a role in domestic and cross-border instant payments.

For most cross-border payments, AML/CFT/KYC and F/X layers will be needed, provided by the network, a financial institution, or a third party. E-dollars sent to a Swiss e-wallet might be converted to UBS e-francs. In Venezuela and Zimbabwe, however, Citi e-dollars likely would circulate unconverted.

The final lesson in all this? Diverse instant-payment systems interoperating and competing worldwide will maximize value for businesses and consumers. We're still a long way from getting there.