Real Time ACH Payments

REAL TIME IN REAL LIFE: THE IMPACT OF A REAL-TIME PAYMENTS SYSTEM ON ITS USERS

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About "Real Time in Real Life"

The Payments Innovation Alliance, a membership program of NACHA — The Electronic Payments Association®, developed this paper. The goal of this paper is to inform the industry globally on the realities of deploying a real-time payments system for users, including a description of the benefits, opportunities and challenges of users utilizing such a system.

About the Payments Innovation Alliance

The Payments Innovation Alliance brings together diverse, global stakeholders to support payments innovation, collaboration, and results through discussion, debate, education, networking, and special projects that support the ACH Network and the payments industry worldwide. The Alliance brings together content and focus across all payment areas, including emerging payment technologies, electronic billing and presentment, mobile, payment security/risk, check conversion and global payments. Membership includes organizations of all sizes and spans the payments industry spectrum.

About NACHA – The Electronic Payments Association

Since 1974, NACHA – The Electronic Payments Association has served as trustee of the ACH Network, managing the development, administration and rules for the payment network that universally connects all 12,000 financial institutions in the U.S. The Network, which moves money and information directly from one bank account to another, supports more than 90 percent of the total value of all electronic payments in the U.S. Through its collaborative, self-governing model, education, and inclusive engagement of ACH Network participants, NACHA facilitates the expansion and diversification of electronic payments, supporting Direct Deposit and Direct Payment via ACH transactions, including ACH credit and debit payments; recurring and one-time payments; government, consumer and business transactions; international payments; and payments plus payment-related information. Through NACHA's expertise and leadership, the ACH Network is now one of the largest, safest, and most reliable systems in the world, creating value and enabling innovation for all participants. Visit www.nacha.org for more information.

This paper is intended for educational purposes only. It should not be relied upon for legal advice. Readers should consult attorneys for legal advice.

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Note: The views presented in this white paper do not necessarily reflect the individual views of each member of the project team, the entities or organizations that employ the members of the project team, the Payments Innovation Alliance Leadership Team, or the individual Alliance member organizations.

Executive summary

Payments system modernization efforts are becoming increasingly common across geographies and these efforts are leading to interest in, development of, and increasing utilization of real-time, low-value payments systems. Consumer and business expectations and demand for speed in payments, coupled with evolving payment types, have highlighted a need for faster options for multiple use cases. However, as industry professionals address real-time payments, it is evident that "real time" can mean many different things, with vastly different implications to users of the system. NACHA’s Payments Innovation Alliance recognizes that, as an industry, we need to further explore and fully understand what a real-time system would mean from an end-to-end perspective.

The primary focus of this paper is the implications to users of rolling out a real-time payments system. An extended discussion of issues such as posting and funds availability and settlement between financial institutions is considered out of scope. While these issues will be touched on briefly to set the context, the focus instead will be on exploring what real time means, outlining the challenges to implementing real time, and focusing on the benefits and opportunities that real time brings.

The goal of this Alliance opinion paper is to inform the industry globally on the realities of real-time deployment, and explore how businesses, consumers, and financial institutions can implement and utilize a real-time payments system in the U.S. Through answering these questions, this paper seeks to bring the concept of real time to real life.

Defining real time

While real-time payments systems are proliferating around the globe, there is still no single, universally agreed upon definition of a real-time payment. Based upon common characteristics from various global real-time payments systems, the Payments Innovation Alliance defines a real-time payment as an immediate, irrevocable, interbank account-to-account transfer that utilizes a real-time messaging system connected to every end-user through a financial institution, third party, or another real-time system.[1] Funds are available for use by the receiver and real-time confirmation is provided to both the sender and receiver in seconds.

A real-time payments system is a synchronous messaging system with request and response capabilities that operates between financial institutions, third parties, gateways and directly connected businesses in real time. Prior to the initiation of payment instructions to the receiver's financial institution or third party, good funds are confirmed, and with this certainty of settlement, there is immediate debiting and crediting of the sender's and receiver's accounts at their respective financial institution/third party. A proxy database that allows users to make a real-time payment without the sender or receiver knowing the other's banking information is assumed, as is the ability to send or receive payments 24/7.

1 This definition does not preclude two customers of the same financial institution serving as sender and receiver to the same real time payment transaction.

How does real time work?

A real-time payment has three distinct components: authorization, posting and settlement. Real-time payments systems must provide authorization and posting of funds in real time, but settlement does not necessarily have to occur in real time. Other important elements include the payment types covered (credits/debits), message flows, messaging standards, and overlay services.

Authorization, posting, and settlement

Authorization includes both the initiation of payment instructions by the sender, and the real-time acceptance by the sending and receiving financial institutions/third parties of the payment request via a real-time messaging element. Unlike authorization and posting, settlement between financial institutions/third parties does not have to occur in real time. In fact, the majority of real-time systems today utilize a deferred net settlement method. Real-time gross settlement (where each transaction is settled individually in real time) has the least risk, but requires high liquidity costs for banks. In contrast, deferred net settlement multiple times a day eases liquidity management, with settlement risk controlled through a range of guarantees

(typically through collateralization or pre-funding of settlement obligations).

For end-users, settlement between financial institutions is unimportant. The key factors for them are the quick confirmation/rejection notice and the immediate availability of funds. These two factors are what create a real-time experience for consumers and businesses.

System rules and data standards

Issues such as return rights, liability for fraud, and mandated times for posting and/or settlement will be of particular importance in the scheme rules for real-time payments. Limiting real-time processing to credit ("push") transactions is a best practice that has been adopted by almost all real-time systems today. Credit only transactions offer more security, more protection from fraud, and additional sender control and do not feature the complexity of direct debit transactions, which require mandate management and return rights that would be difficult to provide in a system that offers instant, irrevocable transactions. Nigeria's NIP and Singapore's FAST (G3) systems do have the capability to support both credits and debit-like functionality, but neither these systems, nor any other real-time system the Alliance is aware of, currently allows consumers or businesses to initiate real-time debit ("pull") transactions.[2,3] Instead, the few real-time systems that allow payees to initiate debit-like transactions actually offer real-time requests for credit or real-time requests for debit, with the payer ultimately authorizing the real-time payment.

The system rules also will need to determine a data standard for the exchange of real-time payment messages, and the rules will need to define how to interpret and utilize specific information in a consistent way for all users. ISO 20022 has become the de facto messaging standard for new real-time systems, with many existing real-time systems that do not use ISO 20022 exploring ways to migrate to the standard in the future. For many

2 FIS "Flavours of Fast" 2nd Edition 2015

3 PaymentsNZ "Payments Now" 2015

reasons, including flexibility, extensibility, future domestic and international interoperability, and the fact that the ISO 20022 message format supports real-time payment tracking and reporting and additional detailed remittance information to aid in fraud and risk mitigation, the use of ISO 20022 as the message standard is recommended.[4]

Value limits, fraud screening and value-added services

Some real-time infrastructures institute a system-wide value limit for individual transactions to reduce the risk associated with putting high-value transactions in a system that does not settle in real time. Other real-time systems see individual financial institutions/third parties setting maximum transaction values for their customers. While the onus for fraud screening typically

falls on individual financial institutions (regardless of payment type), implementing a centralized fraud screening capability at the infrastructure operator level could help identify patterns of fraudulent transactions across multiple financial institutions.

Real-time payments systems offer many opportunities for developing value-added services either at the central infrastructure level or at individual financial institutions/third parties. One of the most integral services that is assumed will be part of any real-time solution in the U.S. is a proxy database that allows end users to send or receive payments without the need to share bank account details. Other systems that offer centralized proxy databases (such as Sweden and the UK) use a mobile phone number, but other easily remembered proxies such as an email address could also be used to provide maximum convenience for end users.

Real-time in the United States

The following characteristics are assumed essential in an American real-time system(s), as well as in other countries' future systems:

• 24/7 availability

• Close to immediate authorization or rejection of payment to sender and receiver (within seconds)

• Close to immediate funds posting and availability for the receiver (within seconds)

• Credit transfers only ("push" payments)

• Use of ISO 20022 message standard

• Irrevocability

• Availability of a proxy database allowing end users to send and receive real-time payments without knowledge of the receiver's bank account information

4 More information on ISO 20022 for real-time payments can be found at http://www.iso20022.org

Use cases and user impact

The development of a real-time payments system is more than just an interesting exercise for payments professionals. To ensure success, it must be coupled with clear propositions for each use case so that end-users and financial institutions can realize the benefits that real-time

payments systems offer. Industry stakeholders also need to understand the challenges involved in implementing and operating a real-time payments system to ensure that consumers, businesses, and financial institutions gain value from the system.

Use cases

Real-time payments systems have an impact on all major stakeholder groups and use cases. The four main use cases for a real-time system include:

• **P2P** (Person-to-Person): where a consumer pays another consumer or very small business or moves money between two of their own accounts

• **C2B** (Consumer-to-Business, includes Consumer-to-Government): includes last-minute bill payments or tax payments, online/mobile merchant payments

• **B2C** (Business-to-Consumer, includes Government-to-Consumer): emergency payroll payments or payrolls for temporary or hourly workers, insurance payments, disaster relief, customer refunds

• **B2B** (Business-to-Business, includes Business-to-Government): includes a business making a just-in-time supplier payment, a last-minute bill payment, an account-to-account payment to consolidate money in one account

Real time can enable new or improved products and services that target one or multiple use cases. The following table outlines these products across user segments:

Product/service	P2P	C2B	B2C	B2B
Just-in-time payments	√	√	√	√
Certainty of payment and visibility of funds	√	√	√	√
Improved resource management		√		√

Improved working capital		√		√
Payment tracking	√		√	
Increased straight through processing (STP)		√		√

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