

INDUSTRY PERSPECTIVE

EXECUTIVE GUIDE TO IMMEDIATE/REAL-TIME PAYMENTS



INTRODUCTION

Immediate and real-time payment systems are proliferating around the world, driven by consumer demand for speed and convenience. Financial institutions must respond to this demand; they cannot rely on traditional payment instruments to be competitive.

Real-time commerce and immediate payments have huge significance for banks and other payment providers. The initial push for immediate payments came from regulators seeking to promote economic growth and improve customer services — but now many of the banks themselves are driving this change. More and more, banks are recognizing the opportunities that an immediate payments infrastructure provides, giving them greater flexibility and enabling delivery of the innovative new payment services that consumers are demanding.

Banks and other payment providers need to underpin the burgeoning real-time commerce environment with the ability to make secure, real-time payments anywhere in the world. One of the characteristics of this new payments environment is the multiplicity of solutions and indeed definitions. Real-time, immediate, instant, faster: the underlying principle of such payments is fairly simple, but the way they are executed in solutions around the world differs.

DEFINING IMMEDIATE PAYMENTS — WHAT IT IS AND ISN'T

In defining immediate payments (IP), a number of misconceptions have to be addressed. IP is not, for example, “same day ACH”. IP infrastructures are new schemes in their own right and potentially could replace other payment methods such as cheques, cards and automated clearing house (ACH). However, they won't replace the real-time gross settlement (RTGS) systems for corporate and bank-to-bank transfers, although some payments may migrate from RTGS to IP.

Misconceptions have often arisen because of the ways various IP infrastructures globally address different elements. There are typically four separate layers in IP systems:

- Product and services
- Scheme
- Clearing
- Settlement

Many of the differences in how IP

infrastructures have been designed globally exist in the clearing and the settlement layers; the clearing layer in particular is often misunderstood.

Clearing results in the posting of funds to the beneficiary's account so he or she can use those funds. Clearing is completed when funds are posted. Clearing is necessary to route funds from an account at one bank to an account at another bank.

Settlement occurs between banks, which transfer funds to bring about finality of the payment transaction, giving the receiving institution irrevocable access to the funds. Settlement is necessary to turn the promise of payment into the actual movement of money from one bank to another. Exactly when clearing and settlement occur varies, depending on the payments system. Usually in an ACH system, settlement occurs before clearing completes, with banks applying the clearing postings after settlement. In real-time systems, however, clearing is done first so that the beneficiary gets instant availability of funds. Initial payment is made with the funds of the

beneficiary's bank. The banks involved in the IP transaction will subsequently settle, in the case of the U.K.'s Faster Payments for example, in one of the three daily settlement cycles. In this case, incoming and outgoing payments are netted for each bank and the net balance is settled at the central bank. This is known as deferred net settlement. Some IP systems such as in Sweden settle each individual payment (during the day) on a gross basis, real time, at the same time as the clearing transaction.

Most IP schemes use deferred net settlement, with settlement occurring several times a day, rather than in real time. For example, the Faster Payments scheme settles three times a day, FAST five times and Nets RealTime24/7 six times. However, in Australia's NPP, settlement is expected to occur in real time.

The key difference between IP systems and other payment models is that IP guarantees immediate availability of funds to the beneficiary of the transaction. In contrast, for example, in card transactions, real-time

authorization of a transaction on a card is not the same as having real-time availability of funds; the buyer is committed to pay and the recipient is guaranteed to eventually receive the funds, but the availability of funds is not immediate.

HOW FAST IS FAST?

There are also differences between the various IP infrastructures in how rapidly funds are made available to the end user. This depends on scheme service-level agreements (SLAs), actual performance and bank commitments to customers (see the description of the U.K. Faster Payments scheme below). Differences between these elements give rise to confusion, especially where actual response times experienced by customers are much faster than stated SLAs and terms and conditions. For example, there is a misconception that Faster Payments Service (FPS) payments take two hours to clear, whereas in fact most clear within seconds.

There is no definition for end-to-end IP response times. The general view is for a target of less than five seconds for transfer to the beneficiary covering end to end, five stages that the transaction undergoes. These are: payment initiation to central infrastructure (CI, for centrally cleared IP payment schemes), CI to beneficiary bank, beneficiary bank to CI (the confirmation process), CI to sending bank and sending bank to sender.

However, five seconds may not be sufficient. One benchmark for new IP infrastructures to target is 400ms, based on public transport applications, a stringent use case for payments. This is the accepted maximum to allow the industry standard gate flow of 35 people per minute. With the advent of the internet of things, even faster response times may be required to support new business models.

THE IMPACT OF IP ON EXISTING PAYMENT ARCHITECTURES

Instant payments are at present very much driven by consumers, who increasingly expect immediacy in the digital world. Immediacy is a common expectation in the customer-facing part of the payments value chain, which includes authentication, authorization, clearing, posting, confirming and providing balance updates.

In the bank/interbank part of the value chain, credit checks, sanctions and AML requirements, settlement, liquidity management and risk management all take place. This is transparent to the consumer, who has little interest in how an instant payment is executed behind the scenes.

Consumers want instant access to funds; how their banks get there is irrelevant. Too often, however, banks address their part of the value chain first before looking at the customer proposition. As a result, the customer experience is often inferior. For example, some banks do not always show updated balances online after an instant payments transaction is received.

The customer-facing part of the value chain, most of which resides in the product and services layer, is where banks can innovate and differentiate themselves. Examples include services such as Paym (a U.K. real-time payments addressing service), direct corporate submission of IP payments and mobile peer-to-peer (P2P). Clearing and settlement, on the other hand, is a more collaborative environment between banks.

MESSAGING AND ISO 20022

The messaging layer of payments is important and most of the more recently developed IP schemes use the ISO 20022 standards framework. As a standards framework, ISO 20022

enables the creation of messages, but there is no single ISO 20022 message. For example, messages used for batch payments such as SEPA Credit Transfers cannot simply be reused for IP messages; changes and additions are required to support IP processing. In particular, IP payments should be confirmed synchronously to the sender. Messages need to pass from the sender to the receiver and back in real time, enabling banks to determine if a payment has been accepted or rejected in the same session. For batch payments, this confirmation process is asynchronous, but, if used for IP payments, could result in a customer thinking he or she has sent a payment only to discover much later that it has been rejected.

ISO 20022 creates a data rich environment, allowing more information to be attached to the payment messages. The use of this standard also improves payments efficiency and creates a common and level playing field facilitating interoperability between different IP schemes across borders.

In May 2015, Payments U.K. (formerly the U.K. Payments Council) hosted a meeting of more than 40 payments industry stakeholders to coordinate the use of ISO 20022 for real-time retail payments. A Real-Time Payments Group was established, which is documenting and harmonizing cross-market business adoption of ISO 20022 standards for IP. This work recognizes the fact that although batch ISO 20022 messages are a good starting point for a real-time payments message set, a new set of ISO 20022 messages is needed. This collaborative work will help the industry to eventually move towards cross-border, real-time payments by leveraging the interoperability of ISO 20022.

THE IP USE CASE

As a largely consumer-driven phenomenon, it is difficult to predict exactly how IP schemes will be used.

What is clear is that IP removes limitations that have existed with traditional payment methods, and consumers and corporates have the freedom to use payments in different ways. Predicting whether certain batch payments will migrate to real-time is difficult. For example, salary payments have started to migrate to Faster Payments in the U.K. because of specific requirements. A small or medium enterprise may wait until the last moment on the monthly pay day to transfer salaries so they can work out the precise amount to pay an employee (in the case of those who receive commissions, for example) and have better control over cash flows. Larger employers, on the other hand, may adopt IP in order to ensure temporary staff are paid the exact amount owed, immediately, based on the actual and not estimated hours worked.

THE IP BUSINESS CASE

Any offering built on an IP infrastructure must take into account the customer proposition of guaranteed, real-time, 24x7 payments. IP business cases are marginal on a narrow transaction services revenue basis. Include customer life-time value in the business case and IP are compelling.

The deployment of ISO 20022-based IP schemes will be important in building a business case for financial institutions. As a data-rich standards framework, ISO 20022 will open up the possibilities for data manipulation and the marketing of consumer analytics, which is where the value add resides for financial institutions.

However, IP is also an opportunity for other organizations. Companies such as Venmo in the U.S. have bypassed banks in order to enable users to send money instantly, for free, using their mobile phones. Now owned by PayPal, Venmo manages one billion transactions per year.

Recent research¹ on digital payments in Asia Pacific has found that consumers are demanding faster and more efficient payments. This is driving rapid growth in real time and IP in the region. There is dynamic competition in the region between banks and non-financial services providers, the latter of whom have extended payments from online and mobile ecosystems into P2P payments within social media apps such as WeChat and Line.

It is increasingly clear that whether a country has an IP scheme in place or not, consumer demand for IP is gaining momentum. In India, for example, uptake of the Immediate Payment Service (IMPS) scheme was slow until new payment service providers began to offer mobile payments over the network.

The experiences in the U.S., U.K., Asia Pacific and India clearly demonstrate that there is significant customer demand for IP. Banks should note that they can attract and retain customers if they offer IP services.

IP has the potential to eventually reduce costs for banks, by reducing their payment silos. Banks face excessive costs just to maintain the status quo in payments, operating and maintaining multiple silos for ACH, RTGS and card payments. Over time there is potential to remove some silos, such as those for cheques and ACH, and replace them with IP schemes. IP represents the best opportunity for a long time for banks to move away from aging legacy payment systems and towards a more modern infrastructure.

As the use of the ISO 20022 framework proliferates there is a greater possibility that IP schemes globally will become more standardized. It is likely ISO 20022 will help to establish inter-country IP scheme linkages so that a customer in the U.K., for example, could make an instant payment to a

family member in Australia. Countries will be able to improve their domestic payment systems while at the same time building compatibility with systems overseas. Within the next five years, global, real-time, cross-border transfers could become a reality.

THE IP IMPERATIVE

Financial services are moving inexorably into the digital world. This is opening up the payments value chain to new participants and is changing the way consumers and businesses interact with their financial institutions.

As IP schemes gain momentum and scheme limits are raised, consumer and corporate payments will migrate to IP. These payments offer the capacity to fundamentally change the role and remit of banks in the payments world. Financial institutions need to recognize the benefits of IP and ensure they grab the opportunities before it is too late.

REAL-TIME PAYMENTS, A WORLD TOUR

A rising number of IP infrastructures are being set up and operated, or are in the planning stage around the world. IP solutions deliver significant benefits to a wide range of payments stakeholders. For example, governments can reduce cash and cheque handling to create a more manageable environment for the management of economic risks. Businesses can pay employees and suppliers faster, have funds available quickly and gain access to rich payments data. Consumers gain convenience with 24x7 availability and immediate access to funds.

U.K.

One of the earliest IP infrastructures is the FPS, which was launched in 2008. It is a U.K. banking initiative to reduce payment times between different banks' customer accounts from three working days to real time. The limits of eligible payments depends

¹ The Future of Payments, IDC and ACI Worldwide, September 2015

on individual scheme members (there are currently ten banks and PayPal), which can choose their own limit up to £100,000 on the platform (this will soon be raised to £250,000). FPS members are subject to SLAs, which determine response times (broadly these have to be within ten seconds and in reality most transfers are made within two seconds). The SLAs relate to members and the scheme itself, with no commitment made to customers, except the minimum legal requirement of T+1. There are no SLAs between agency banks (indirect participants) and FPS. Instead, transactions come under FPS SLAs when a sponsor bank transmits the agency payments to the CI. A customer of an agency bank could experience a clearing time of more than two hours or possibly up to a business day. This difference in response times for customers of agency banks and member banks is becoming a major issue as customers are noticing slow payments. It is a key driver behind a FPS initiative to open up direct technical access to its central infrastructure.

POLAND

Poland's Elixir Express system was launched in 2012 and was developed by the local bank-owned payments clearing infrastructure, KIR. It enables the execution of interbank transfers within seconds, operating in the 24x7 mode. In 2014, Express Elixir processed 940,000 transactions for a total value of PLN4.2 billion.

SINGAPORE

Launched in 2014, Fast and Secure Transfers (FAST) is a real-time payments initiative from the Association of Banks in Singapore (ABS). FAST is Singapore's response to the demand for faster payments between parties and serves both consumers and businesses. Launched by the ABS in March 2014 for immediate payments processing, FAST has reduced payment transfer time from three days to near-real time, using the interbank GIRO fund transfer

system. There are 14 participant banks in the scheme, which allows payments up to S\$50,000 per transaction. The service is based on the ISO 20022 standards framework.

DENMARK

Denmark's Nets RealTime24/7 system was also launched in 2014 and is operated by NETS on behalf of the Danish banking sector. It was rolled out as part of an ongoing modernization of the Danish payments infrastructure. The system offers consumers and businesses near-real-time payments (between 1-10 seconds) for payments up to a value of Dkr500,000. A key target for the system is to move mobile P2P payments from existing platforms to a true real-time environment, offering full reach and interoperability. Like FAST, it is based on the ISO 20022 standards framework.

INDIA

Launched in late 2010, IMPS is one of the most prominent electronic funds transfer systems in India. It provides real-time remittance services anytime, anywhere across India. Using IMPS, customers can transfer money in real time to any person or to a merchant, for any personal or commercial purpose. IMPS facilities are offered by 92 banks across the country.

AUSTRALIA

The New Payments Platform (NPP) infrastructure is expected to be operational by the second half of 2017. Supported by 13 banks, it will provide the infrastructure for low-value payments, providing businesses and consumers with 24x7 services. The infrastructure will provide interactive bank-to-bank clearing and separate settlement via the Fast Settlement Service (FSS) of the central bank.

THE NETHERLANDS

At a meeting in May 2015, Dutch banks announced a plan to facilitate instant payments by 2019. The plan is to build a system under which payments will be credited to a payee's account within

five seconds. The system will operate on a real-time, 24x7 basis and its creation will be overseen by the Dutch Payments Association.

SWEDEN

Sweden's central bank, Sveriges Riksbank, has declared its intention for Sweden to be a cashless society by 2020. Real-time payments are one way of achieving this goal. Swish, an app owned by six Swedish banks, is an overlay service built on the BiR real-time payments system. It enables users to make real-time payments from their mobile phones. The app is aimed at P2P and also consumer-to-business users. Launched in late 2012, more than one million people have downloaded the app.

U.S.

As part of a payments improvement strategy, the U.S. Reserve Banks and the Federal Reserve Board are developing faster payments in collaboration with banks, merchants, corporates and consumers. The Fed has set up a Faster Payments Task Force, which will identify and evaluate approaches to faster payments, engaging with a diverse range of stakeholders. It will report its findings at the end of 2016. In the meantime, the Clearing House is building an immediate payments systems. Check use is still high in the U.S. and research has indicated that one-third of check volumes would disappear with the introduction of real-time payments.

EUROPEAN UNION

The EBA's Instant Payment Task Force is working on a pan-European solution for instant payments processing. Participants include 20 experts from user institutions that have expressed their interest in participating in an instant payments system. The Task Force has developed a roadmap for delivery of instant payment services by EBA Clearing by 2018. A blueprint for an immediate payments solution was also developed and the Task Force is consulting with its member banks.

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