# INSTANT PAYMENTS: REALLY A REAL-TIME REALITY?[1]

**Instant person-to-person payment is now a reality in multiple jurisdictions, and confidence is high that the benefits will soon spread from the retail to the corporate and government sectors. Barriers persist, in the shape of entrenched methods of making payments, ageing bank systems and continuing inefficiencies in cross-currency payments, but the consensus in the industry is that real-time payment will eventually characterise every payment channel.**

"In many cases, speed is the least interesting thing about what we have built," says Adrian Lovney, CEO of New Payments Platform (NPP) Australia, which in February 2018 became the first instant payments system to go live over SWIFT. "It is obviously the thing that consumers notice, because traditional batch payments are slow. But when we talk to businesses they are interested in availability 24/7, 365 days a year. They are interested in the ability of the NPP to carry rich information. And they are certainly interested in the addressing service."

The first service to go live on the NPP is Osko, which makes use of the NPP addressing service that Lovney refers to. Bank apps allow account holders to select a payee from the address book in their phone, poll the NPP database to confirm the match with a unique Pay ID, enabling confirmation of the payee prior to payment, and then the payment is cleared and settled within a limit the Osko Service Level Agreement (SLA) sets at no more than ten seconds. "In most cases, payment arrives within a couple of seconds," explains Lovney. Payers can still address faster payments via an existing sort code and account number if they wish, and can also add up to 280 characters of unstructured free text to the payment, including emojis.

## Consumers making person-to-person mobile payments are the earliest adopters

To drive rapid adoption of instant payment, the focus on mobile retail payments was an astute choice for the Australian banks. Making person-person payments easier as well as faster has created a high (2½ million payments a week by October 2018) and rising (20 per cent a week) volume of instant payments between 70 institutions connected directly and indirectly to NPP. "Osko is a bank-led product," says Lovney. "It is driven through bank channels. That gives us really broad reach, and scale. We have got 50 million accounts enrolled in Osko."

But even 2½ million person-to-person payments between up to 50 million retail accounts at 70 institutions is no more than a start. It leaves other payments channels, such as point-of-sale, e-commerce, credit cards and government taxes and distributions – untouched. This suits the NPP, which recognised long ago that achieving ubiquity from the outset was unrealistic. Its management has worked instead since early 2017 to a minimum critical mass in terms of the volumes of payments it wanted to support in the first year.

"Most banks have focused on the retail channel, predominantly in the mobile channel initially, and they are only now moving to roll out the availability of the product to their institutional, corporate and government clients," says Lovney. In fact, the next iterations of the NPP platform are designed to make it easier and more attractive for both businesses and government entities to make instant payments. "We are interested in growing the use of the platform beyond person-to-person payments into business-to-business payments," says Lovney. "That is where the revenue opportunities come from."

## Business-to-business and government payments are the next targets

Lovney adds that the effectiveness of the new features on NPP in capturing payments volumes will depend to some extent on the Australian banks making improvements to their reporting to corporate customers, so they can make full use of the data-rich payments NPP will make possible. This argues for more structured data fields in corporate payments messages, so that information important to corporates - such as payment reference numbers - can be included in a standard format. NPP is leveraging off international developments in the ISO20022 community to specify core messages for use in particular industry verticals – for instance, wealth management, payroll, and electronic invoicing.

[1] Instant payments: Really a real-time reality?:
A panel discussion held at Sibos, Sydney, 23 October 2018.
The video of the panel can be watched here:
https://www.youtube.com/watch?v=poafR3tar6k

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Lovney accepts this dependence on the banks to adapt to NPP makes it more difficult to rapidly innovate given the need to achieve widespread change in bank's own infrastructure. Stand-alone instant payment services such as Swish in Sweden and Mobilepay in Denmark, being set up and controlled by the banks, operate more like the Uber and Facebook apps, adding new functionality every week. On the other hand, working with the banks to support the provision of services such as Osko has enabled rapid take-up.

"In other jurisdictions you might have a single app that is implemented by a range of banks through a single channel that gives you much faster implementation of product, but obviously enrolment is a challenge," explains Lovney. "The question we have been asking ourselves in Australia is how to get the best of both worlds. Maybe a bit more orchestration in the centre might enable us to roll out functionality quicker. In order to get new products launched, you have to get functionality across the eco-systems."

Petia Niederländer, head of retail and corporate operations at Erste Group in Austria and chairperson of EBA Clearing, says the RT1 pan-European instant payments system launched by EBA Clearing in November 2017 was deliberately designed to be what she calls "product-agnostic." This enabled EBA Clearing to secure the support of a core group of banks from all corners of Europe, by providing functionality that could be put to multiple uses by the banks.

"We provide product-agnostic services, which focus more on delivering the instant payment and giving the banks the flexibility to go forward in their own way, at their own speed, as well as deliver different value propositions to their customers," says Niederländer. "We have very different use cases among the institutions that make use of our infrastructure."

RT1 currently has 30 participants, which provide reach to over 1,000 payment service providers from 12 countries of the Single Euro Payments Area (SEPA). The users include the oldest bank in the world and a bank that only got its banking license 6 months before the RT1 go-live; the system has large multi-national institutions among its participants but also small challenger banks.. RT1 is now processing around 70,000 payments a day, and up to 100,000 on a peak day. In the course of next year, EBA Clearing expects to have onboarded over 80 participants, which represent 80% of the Company's SEPA credit transfer traffic.

Niederländer says it has proven easy to expand the scope of the infrastructure service now it is live. "RT1 is already on its third release," she says. "We have been working on topics like liquidity management."

Karen Birkel, deputy head of the market infrastructure management division of the general market infrastructure and payments directorate of the European Central Bank (ECB), agrees on the importance of building scale quickly in instant payments. The Eurosystem launched its TARGET instant payment settlement (TIPS) system on 30 November 2018, with the support of just nine commercial banks[1]. Many more are expected to join in 2019.

## Network effects are essential to rapid adoption

One way to achieve rapid adoption is that the Eurosystem allows direct access to the TIPS platform to all banks which are eligible to open an account in TARGET2, plus any third parties (so-called "reachable parties") that banks permit to use their account. However, the third parties must also have a Bank Identifier Code (BIC) and be compliant with the SEPA Instant Credit Transfer (SCT Inst) rulebook published in November 2016. This makes

[1] These were CaixaBank, Natixis, Abanca Corporación Bancaria, Banco Bilbao Vizcaya Argentaria, Banco de Crédito Social Cooperativo, Berlin Hyp, Caja Laboral Popular Cooperativa de Crédito and Teambank.

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it impossible for banks to join any Instant Payment operator until they can demonstrate compliance with the SCT Inst payment scheme.

But even among banks that are eligible, the lack of network effects is a barrier. "Banks are telling us the biggest difficulty is being the first-mover, or network issue," says Birkel. "They say, `If I am going to invest a whole lot of money, I want returns. I want to invest when the industry is moving.' It is extremely important to be reachable. It is no use being a first mover if you do not have anyone to transact with."

This helps to explain why the Eurosystem has introduced an attractive pricing schedule for TIPS. It charges account holders no entry or maintenance fees and just €0.002 per transaction for the first two years of operation, with no charges levied on users for the first ten million payments settled on each TIPS account by the end of 2019.

The Eurosystem also has the advantage of offering TIPS as part of package of services spanning the TARGET2-Securities (T2S) settlement platform as well as the TARGET2 real time gross settlement (RTGS) payments service. "Having that package is a key success factor," says Birkel. "The modules that are needed for TIPS are already built into TARGET2 from day one. It means that you can see in TARGET2 what your overall liquidity is in your TARGET2 accounts and in your TIPS accounts."

## Making cross-border, cross-currency payments instant is a fresh challenge

As a public service to the entire Eurosystem, TIPS faced an additional operational challenge which NPP and RT1 did not: how to interoperate with markets that have national instant payment services, and with those which do not, and with markets that are not yet members of the euro. The solution was an open, multi-currency model, in which central banks make their currencies available in TIPS and banks can receive payments from each other and send them to each other in that currency.

The fact that payments cross borders and currency barriers is a problem which only TIPS has confronted so far, but it is one all instant payment platforms must address eventually. At present, in-bound payments from abroad enter domestic payments systems via the RTGSs, but these are not available 24/7, so the payments tend to be a lot less than instant. Cross-border payments are also complicated by the need for banks to complete sanctions screening checks.

Adrian Lovney says NPP is now working with SWIFT on a pilot scheme to accelerate cross-border, cross-currency payments to and from Australia, using the SWIFT global payment innovation (gpi) standard. "We certainly see that first and last domestic leg, which might currently use the RTGS or batch system, can be sped up using NPP," he explains. "A number of Australian banks have been running a pilot with SWIFT and are seeing end-to-end transactions between China and Australia and Singapore and Australia of less than 15 seconds, with tracking all the way through."

The solution might be pertinent to RT1 and TIPS as well, since all three instant payment platforms now use SWIFT. NPP, which was built by SWIFT, sees SWIFT connectivity to the ISO 20022 standard as the ideal choice for its users. EBA Clearing added SWIFT to the range of connectivity options it offers users of RT1 from 26 November this year, and TIPS has made use of SWIFT connectivity since it went live on 30 November (though TIPS users can also make use of SIAnet, the secure messaging service provided by Italian vendor SIA).

## Standards are vital to the inter-operability of bank instant payments services

But the value of SWIFT to users of the NPP reaches beyond facilitating cross-border payments, says Adrian Lovney. He says SWIFT messages also facilitate standardisation and consistency in the APIs banks are making available to their customers to expedite instant payment via the NPP.

"Standardisation was driven by the market, which is looking for consistency and inter-operability but also by market participants, who want to enable access-seekers to be able to plug-and-play from different access points," explains Lovney. The NPP now hosts an API "sand-box" to allow "access seekers" to familiarise themselves with how their systems will interact with the NPP via APIs.

Petia Niederländer agrees that standardisation matters. "The standardisation of the eco-system is very important," she says. "We are working on improving the features for the community in order to create a standard for the eco-system." But, as Adrian Lovney points out, it is not always easy to identify the natural leader of a process of standardisation in a given sector of the economy. In the capital markets, for example, it is the Australian Stock Exchange (ASX), but the equivalent of the ASX in, say, payroll services, does not exist. In these areas, NPP is itself driving the development of these standards in consultation with the market.

## The next major opportunities for instant payments are in e-commerce

The lack of flagship institutions to lead adoption of instant payments in every sector has not dented the widespread and growing belief within the payments industry that real-time is the future. In fact, a poll of the audience at the Sibos panel on instant payments found 44 per cent thought point-of-sale was the next major driver of volume in instant payments - despite the utter domination of that channel by debit and credit cards and a string of unresolved technological obstacles to its adoption.

Its attraction is obvious - it offers high volumes of transactions – but, as Petia Niederländer warned, it is almost certainly "too early" to introduce instant payment at the point-of-sale. Adrian Lovney was equally surprised by the poll, on grounds it is "tricky" to deliver instant payment at the point-of-sale, because access to NFC chips is not always available, though QR codes are being used in some jurisdictions. A more plausible candidate for immediate expansion of instant payment, he thought, was e-commerce.

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NPP is preparing for the introduction of a request-to-pay service. "We see payment initiation messages as being a real game-changer," says Lovney. "At the moment what we have is a credit transfer message, which is interesting, but in future a broad range of payment initiation messages, including request-to-pay and payment with a document, opens up a range of use-cases for businesses, particularly as we move into open banking. We see payment initiation messages being generated by a range of third parties other than banks. Powered by APIs, they could be initiated by objects - by things in the Internet of Things."

Karen Birkel agrees that business-to-business is an obvious growth opportunity. "The banks need to work with their corporate clients to think of new use-cases," she says. "When we started with the smartphone, did we know all the business cases that it could be used for? Now we are using it for almost everything, so I think there is a lot of opportunity for instant payments out there."

But Birkel also sees an opportunity in instant person-to-person payments across borders. Because TIPS is a multiple currency but not a cross currency system – it allows banks to offer TIPS payments in their own currency to their own market, without providing foreign exchange (FX) conversions – it has already created an opportunity for banks to provide FX services.

"Banks can develop those services above TIPS if they need to do it across different currencies, so there will be an opportunity out there," says Birkel. "We do have some use-cases that we have shown on our roadshows showing how we could imagine that happening." She also believes that government payments are an early candidate for the adoption of instant payment.

## Confidence that instant payment will spread to all channels is high

Whatever proves to be the most lavish growth opportunity for instant payment, confidence that all payments channels will move eventually to real-time is high. A poll of the audience at the panel found a majority expect instant payments to eventually absorb all other payment channels. "By 2025, instant payment will have absorbed a lot of different channels," predicts Karen Birkel, though she expects different forms of payment to gravitate to instant payment at different speeds.

Petia Niederländer pointed out that the three Baltic states have already adopted different but decisive paths to encourage the adoption of instant payment on the broadest scale, and the results will provide useful test cases for other markets. "It is a matter of time, and feedback from those communities, as to how quickly instant payment will drive other use-cases, and how this will in turn drive the evolution of the eco-system and the kinds of business usage," she says.

Adrian Lovney, on the other hand, foresees the emergence of a single payments architecture capable of handling multiple forms of payment. "Like the United Kingdom is looking at, with a common credit message using the ISO 20022 standard, with different speeds of transit attracting different prices," he explains. "I think that is a possible outcome. There are important questions around resilience and redundancy that central bankers will be looking for, to avoid putting all our eggs into one basket. But certainly I think instant payments across all channels by 2025 is achievable."

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