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ELECTRONIC PAYMENTS INTERNATIONAL

GETTING UP TO SPEED

THE US FINALLY STARTS THE CLOCK ON FASTER PAYMENTS

ANALYSIS

Replacing the irreplaceable: the bugbear of upgrading legacy systems

INSIGHT

The industry reflects on 2017, and predicts the new year's talking points

FEATURE

Hyperwallet sees opportunities in the fast-growing gig economy

THIS MONTH

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JANUARY 2018

ONE TO WATCH: HUY NGUYEN TRIEU EYES UP DIGITAL LAUNCH

Douglas Blakey, Editor

This is unlikely to be just another digital banking startup. As *EPI* goes to press the news that fintech entrepreneur and ex-Citi banker Huy Nguyen Trieu is leading a team to roll out a new digital bank is eye-catching.

Just when many of us argued that we were reaching saturation point for new UK digital banking launches, Disruptive Finance CEO Huy Nguyen Trieu and his team, including ex-Atom Bank CTO Paul Hanks, are stepping up plans to raise capital and obtain regulatory approval in 2018 or 2019.

According to a report in *The Telegraph*, the as-yet-unnamed bank plans to launch a mobile savings app that uses artificial intelligence to give customers personalised advice.

Ordinarily, I would suggest that yet another digital banking startup is going to find the going tough; but I am loath to bet against Huy Nguyen Trieu.

Raising sufficient capital is unlikely to be the new bank's biggest challenge. It certainly has not been much of a challenge for Paytm, and the launch at the end of November of Paytm Payments Bank confirmed the extent of its ambitions. In the last two years and in the period to 2020, its investment will be in the region of INR200bn ($3.1bn). It aims to become the world's largest digital bank with 500 million accounts.

In terms of growing customer numbers quickly, Paytm has form: its digital wallet has already signed up more than 100 million customers. The payments bank will operate separately from the digital wallet; customers of the former will be able to obtain a debit card and will receive interest on their balance.

There is always the danger of overblown hype and exaggerated claims at launch time, but in this case the launch of Paytm's payments bank seems to justify the enthusiasm of Indian Finance Minister Arun Jaitley. He said: "This is a new chapter in history being written, and with every day some such initiative is taking place, which helps make the economy more formal."

BITCOIN GOES THROUGH THE ROOF

Sanity, at some point, may yet prevail as regards the price of Bitcoin. Surely gamblers, correction 'investors', will take their profit en masse and get out while the getting is good? Is this not just another old-fashioned bubble? So goes the argument that many, including this writer, have been making about Bitcoin.

In 2017 Bitcoin's market cap has soared from $15bn to $160bn. It is truly sobering to read quotes attributed to Alistair Milne of the Altana Digital Currency Fund stating that Coinbase, the leading US platform for buying and selling Bitcoin, has grown its customer numbers to 13.3 million.

I did not buy into Bitcoin at $500, $1,000 or any other price. The best of British to friends and workmates now jumping on the bandwagon.

As the year draws to a close, it only remains to thank all subscribers, contributors, events sponsors, press officers and PRs for their help and support in 2017, and to wish all a merry Christmas and a prosperous New Year.

To say that we live and work in fascinating times is the biggest possible understatement. ■

GET IN TOUCH WITH THE EDITOR AT: **DOUGLAS.BLAKEY@VERDICT.CO.UK**

NEWS DIGEST

EUROPE'S INSTANT PAYMENTS INFRASTRUCTURE GOES LIVE

The European Payments Council (EPC) has announced that its Single Euro Payments Area Instant Credit Transfer (SCT Inst) scheme has gone live.

Nearly 585 payment service providers (PSPs) from Austria, Estonia, Germany, Italy, Latvia, Lithuania, the Netherlands and Spain have come together to support the launch of the SCT Inst scheme.

Customers of these PSPs – individuals, businesses, corporations and administrations – will now be able to transfer up to €15,000 ($17,835) in less than 10 seconds round the clock, including weekends and holidays, across borders.

PSPs from Belgium, Finland, Germany, Malta, the Netherlands, Portugal and Sweden are expected to join the scheme in 2018 and 2019.

The geographical scope of SCT Inst will gradually increase to more than 34 European countries, the EPC said.

European Payments Council chair Javier Santamaría said: "With its numerous advantages, the SCT Inst scheme fully anchors European payments in the anywhere, anytime digital world.

"SCT Inst is the only regional initiative of this kind in the world. The European payment community can be proud of the work achieved to make instant euro credit transfers a reality today.

"I can only encourage PSPs who have not joined SCT Inst yet to do it as soon as possible. This enhanced European payments integration will have tremendous benefits for European consumers and businesses alike." ■

UniCredit goes live with instant payments in Italy and Germany

Italian bank UniCredit has launched a cross-border instant payments solution in Italy and Germany, immediately after the European instant payments infrastructure went live.

With the launch, UniCredit has become the first bank to offer real-time payments in Germany, and also the first to use the format for a cross-border payment. Currently, the European Payments Council (EPC) has set a limit of €15,000 ($17,835) per transaction.

Gianfranco Bisagni, global co-head of CIB at UniCredit, said: "After a very focused development and implementation process, the official launch today is a proud moment for us.

"We have always aimed to lead the way on developing instant payments solution for our clients, and we are excited about the benefits this new service will bring to our clients – promoting speed and transparency through 24-hour, 365-days-a-year coverage and real-time notifications of successful payments."

UniCredit said that after one week of live operation in the European instant payments infrastructure, outbound payment execution will be available in Germany starting from 27 November 2017, while outbound payment execution in Italy will be available from 22 February 2018. ■

ACI WORLDWIDE SIGNS PAYWORKS LICENSING AGREEMENT

ACI Worldwide has signed a licensing agreement with POS payment infrastructure provider Payworks to increase its cloud-based omni-channel payment capabilities.

ACI Worldwide will integrate Payworks technology into the front end of its UP Merchant Payments platform.

ACI Worldwide said the integration will deliver a device-agnostic POS solution in the cloud, which is pre-certified with multiple card readers, processors and acquirers.

ACI Worldwide senior vice-president Mike Braatz commented: "Payworks' integration into our RESTful open API means that clients immediately benefit from our extensive global payments network of more than 350 payment methods and acquirers.

"We have brought together our extensive global connectivity with a turnkey solution that is fully white-label, so that payment providers and merchants have the choice to brand their payments infrastructure as their own," Braatz continued.

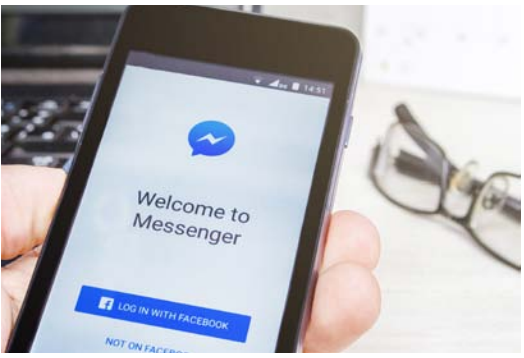
"This gives retailers the freedom to develop and deliver the sort of seamless shopper experiences that are proving to be a key competitive differentiator."

Payworks CEO and co-founder Christian Deger said: "What is most exciting about our expanded relationship are the market demands and use cases that ACI can address with the new solution; from single terminal market stalls and pop-up stores, through to assisted shopping, 'queue busting' and even high-volume retail.

"For many years, we've seen brick-and-mortar retailers moving online, but on separate platforms," Deger added.

"With the solution offered by ACI, merchants have access to a true omni-channel payment gateway that consolidates both digital and physical transactions." ■

PayPal enables invoicing within Facebook Messenger



PayPal has expanded its partnership with Facebook by launching a new feature that allows its customers to send invoices through Facebook Messenger.

The new chat extension will make it easier for sellers and buyers to buy and sell goods and services through Facebook, enabling sellers to create and send an invoice directly within a Messenger conversation.

Users will have to open an extension tray where they can choose PayPal, and create an invoice with details such as item name, description, price and quantity, before sending it to the intended recipient.

The invoice can also carry an image of the product, so the purchaser can immediately identify the invoice and make a payment.

PayPal's director of product, next-generation commerce, Shilpa Dhar, said: "We already enable many of these experiences, like person-to-person commerce within Messenger.

"This use of Messenger is just the latest example of how we are exploring and enabling commerce in new contexts – building on the existing work we've done to help consumers and businesses use the PayPal platform to send and receive payments through other Facebook experiences."

"We will continue partnering across the ecosystem to help simplify payment experiences and create seamless connections between consumers and merchants wherever commerce might be occurring," she added. ■

STARLING BANK PARTNERS WITH STARTUP YOYO


Anne Boden, Starling Bank

Starling Bank has launched its latest API partnership, with Yoyo Wallet, a UK-based mobile payment and loyalty platform.

The partnership will enable cardholders to link a Starling bank account to a Yoyo Wallet. By doing this, the cardholders can automatically receive retailer loyalty points when paying at certain high street stores.

Yoyo uses Starling's open API platform to allow customers to scan cards and start collecting loyalty points when they pay with Starling.

Starling CEO Anne Boden said: "Together, Starling and Yoyo can demonstrate to the industry the importance of Open Banking that puts customers first.

"We are excited to be leading the changes in the industry ahead of the incoming regulations in the UK and Europe in 2018.

"The past four months have seen us launch our Marketplace and partner with such an array of innovators in fintech."

"Our partnership with Yoyo only serves to reinforce our core vision to empower consumers, reward our customers, and reduce the day-to-day burdens of personal finance," Boden added.

Starling Bank has developed similar partnership agreements with money management app Yolt, digital receipt startup Flux, FitBit Pay, Transferwise, Moneybox, Houndify and Tail. ■

CASH STILL KING IN EUROPE: ECB REPORT

Despite rapid progress made by mobile and card payments, cash still dominates consumer payments in the European Union, according to a new report by the European Central Bank (ECB).

Such is the dominance of cash at the POS in Europe that around 79% of POS transactions were made in cash in 2016, amounting to 54% of the total value of payments.

In Germany, the bloc's biggest economy, Austria and Slovenia, 80% of all in-store transactions were carried out in cash.

Cards were the second most frequently used payment instrument at POS, accounting for 19% of the transaction volume. However, cards made up 39% of the overall value of payments.

The study highlights that cash was least used in the Netherlands, Estonia and Finland, where its share of the transaction volume ranged between 45% and 54%.

Men, and consumers aged between 40 and 64 tend to prefer cash payments. Younger consumers, aged between 18 and 39, carried out fewer cash payments.

The report said: "Although the share of contactless payments in many countries is still low, the survey results suggest that the speed with which such payments have been embraced in some countries may mean that once payment cards and POS terminals are enabled with contactless technology on a wider scale, the share of contactless payments could increase significantly.

"Since contactless payments are typically relatively low value, and 81% of all payments at POS are below €25 ($30), this could have a significant impact on the use of cash for smaller-value payments, especially given that respondents who prefer cash and those who prefer cards both appear to place importance on the transaction speed of their preferred means of payment." ■

Samsung Pay launches in Mexico

South Korean technology giant Samsung has introduced mobile payments service Samsung Pay in Mexico – its third market in Latin America after launching in Brazil and Puerto Rico.

The payment service will allow users to make payments at almost all locations where contactless payments are accepted. Samsung Pay supports both near-field communication (NFC) and magnetic secure transmission (MST) technologies. MST technology enables merchants that do not have NFC terminals to accept Samsung Pay using traditional credit card machines.

Users need to swipe an eligible Samsung Galaxy smartphone, select a card, authenticate using a fingerprint or PIN, and tap the smartphone near the POS terminal. It does not store card details on devices, but uses a digital token.

In Mexico, Samsung Pay is currently supported by American Express, Banorte, BanRegio, and HSBC Bank. It is already available in over 20 countries, including South Korea, the US, China, Australia, Singapore, Russia, Canada, India, Sweden, Switzerland, the UK and Vietnam. ■

WORLDREMIT ROLLS OUT DIGITAL REMITTANCES TO SOUTH KOREA

UK-based WorldRemit has expanded its global reach by launching its digital money transfer services to South Korea.

The service will allow users to send remittances to more than 120 new cash pickup locations across the country using phones or the company's website. Around 6% of South Koreans work and live overseas, with top migration destinations including the US, Japan and China.

Remittances play an important role in the South Korean economy. According to the World Bank, South Korea received in excess of $6.6bn in remittance payments in 2015.

WorldRemit's regional business development director for Asia-Pacific, Bryce Currie, said: "With the launch of this new remittance service we will be helping the South Korean diaspora access a wider choice of money-transfer options and a faster, more convenient and secure way of sending money home to their loved ones."

WorldRemit has offices in the US, Japan, Canada, South Africa, Singapore, the Philippines, Australia and New Zealand. ■

GLINT INTRODUCES GOLD PAYMENT APP

UK fintech Glint has introduced a new mobile app that allows customers to pay for goods and services in gold.

The Glint iOS app will allow users to make payments in several different currencies, including gold.

The fintech has partnered with Mastercard and Lloyds Bank to allow users to load credit onto their account and purchase physical gold bullion stored in a Swiss vault.

The pricing is based upon interbank exchange rates, and the company has said that there are no hidden charges for users. Glint said it hopes to give its users the chance to protect their wealth during uncertain economic times.

Glint chief executive Jason Cozens said: "Everyone is familiar with gold as one of society's oldest means of exchange, its universal acceptance, its reliability, its history as a store of wealth and as a means of underpinning the value of paper currencies.

"Unlike paper currencies, gold cannot be wiped out, devalued or corrupted." ■

Payment giants open Spanish innovation hub

CaixaBank, Global Payments, Samsung, Visa and Arval have inaugurated the Payment Innovation Hub, Spain's first innovation hub specialising in merchant commerce and payment methods and one of the first anywhere to be backed by cross-industry leading businesses.

The aim of the project is to establish a world-leading innovation hub in payment methods.

The Payment Innovation Hub is located at Barcelona's Pier01, a space set up by Barcelona Tech City to accommodate more than 100 digital and tech businesses and startups. An initial total investment of €5m ($5.9m) has been earmarked for the project over the next three years.

The centre will be staffed by a dedicated multidisciplinary team, although each project will include its own group of researchers, which may also include members of the Payment Innovation Hub, experts from partner companies, independent specialists, startup businesses, or other groups and institutions interested in specific areas of research.

Ongoing areas of investigation range from biometrics to the Internet of Things, including the harnessing of new technologies such as blockchain and machine learning.

Projects at the Payment Innovation Hub will largely focus on customer experience and security, as well as exploring new models and business opportunities related to the world of payment methods.

In the first few months the centre has plans to pursue four core projects: creating cashless spaces, invisible payments, fintech and connected cars. ■

US TARGETS 2020 FOR FASTER PAYMENTS IMPLEMENTATION

The US began its migration to Faster Payments later than other countries such as the UK and Australia, and hopes to complete the process by 2020. A key advantage is that US payments networks can learn from these countries' experiences. *Robin Arnfield* reports

"Our Faster Payments dialogue started in 2013, 10 years after the Check 21 cheque truncation initiative," says Sean Rodriguez, executive vice-president at the Federal Reserve Bank of Chicago.

"The Fed began discussions with the payments industry to determine how to make improvements in the US. We then released a consultation paper in 2013, followed by a 2015 report called *Strategies for Improving the US Payments System (SIPS).*"

The *SIPS* report included five desired outcomes:

- Improve the US payment system's speed;
- Improve payment security;
- Improve efficiency;
- Improve cross-border capabilities to and from other countries, and
- Achieve all the above with industry collaboration.

NO MANDATE

"The Fed can't mandate the introduction of Faster Payments, as many other countries were able to do for their Faster Payments migration," says Rodriguez.

"We knew we had to do this via collaboration between interested stakeholders rather than through a legislative mandate from Congress. To get started, we set up a Faster Payments Task Force and a secure payments taskforce in mid-2015."

There were 15-20 Faster Payments solutions in place around the world in 2015, and today there around 50 countries with Faster Payments systems in place or in development, Rodriguez notes.

The latest is Australia, whose New Payments Platform's central Faster Payments infrastructure is due to go live by the end of 2017. According to a New Payments Platform spokesperson, participants will launch services for their customers in early 2018.

"We realised we needed to increase the speed of our payments system to keep up with what was happening in the rest of the world," Rodriguez says. "In the US, we have a complex banking system, so moving toward a Faster Payments environment takes considerable effort and co-ordination."

The Fed's Faster Payments Task Force published the first part of its final report in January 2017 and the second part in July 2017.

"The Task Force, comprising over 300 people from different stakeholder segments, created a set of Faster Payments criteria that describe the kind of system we want to achieve," says Rodriguez.

"We invited solution providers to give their views by submitting proposals, and hired a consultancy to review the proposals against the criteria the Task Force established. When the Task Force finished its work in July 2017, we decided on 10 key recommendations to keep the momentum going, along with a roadmap and timeline for moving forward."

> **"WE KNEW WE HAD TO DO THIS VIA COLLABORATION BETWEEN INTERESTED STAKEHOLDERS**

PRIVATE SECTOR

"Our idea was not to impede any private-sector marketplace developments," says Rodriguez. "It was important that the process should complement marketplace activity, not inhibit it."

The Fed's 10 recommendations were laid out as logical next steps forming a call to action to realise the Task Force's vision of Faster Payments in the US by 2020, Rodriguez says.

"One of the main drivers of our effort to improve the US payments system is the growth in consumer acceptance and use of digital payments," he explains.

"Fortunately, we aren't trying to fix a system that is broken, but we are trying to add more features and cater to future business and consumer demand for a real-time exchange of value. Our vision statement targets 2020, and we think payments improvements can, and will be, made to happen by then.

"The Fed isn't planning to be in the market with Faster Payment solutions of our own, but we've launched a work effort to look at what we can do to help the market achieve faster payments, for example directory services or network access," Rodriguez continues.

"Quite frankly, it has yet to be determined what our specific role will be in a Faster Payments ecosystem."

INTEROPERABILITY

"A difficult, but nonetheless achievable goal is to bring about ubiquity in faster payments, as the Task Force recommended," Rodriguez notes.

Ubiquity means consumers and businesses will be able to make real-time payments and transfers from accounts at any US financial institution (FI) to accounts at any other FI, just as they can today through the Federal Reserve Bank's US wire transfer and automated clearing house (ACH) networks.

Rodriguez says The Clearing House (TCH) – which operates a private-sector alternative ACH and wire transfer network to the Fed's systems – as well as the card networks and P2P platforms such as Zelle are all working hard to connect everyone to Faster Payments in the US.

"There is dialogue between operators and different service providers to figure out how to ensure that everyone can be connected, regardless of the size of their financial institution," he says.

"You would expect that the same ubiquity and interconnectedness that prevails in ACH transfers and wire transfers would also apply to Faster Payments transactions."

MOMENTUM

"We were concerned that, once the Task Force issued its final report and ended its business in July 2017, that the momentum toward Faster Payments might slow down," says Rodriguez.

"That hasn't been the case, and we're working now with the payments industry on a Faster Payments governance framework and a directory workgroup.

"The Fed and the industry are looking at recommendations that have been laid out for moving forward and so the momentum now is as fresh as it has ever been. We can learn from other countries and markets that have gone before us such as the UK and Australia. There are clear advantages in not being the first mover in making payments system improvement."

Unlike the UK, which moved to Faster Payments a decade ago, the US will implement the ISO 20022 messaging standard in its Faster Payments networks, *EPI* understands. The UK is now looking to update its networks to ISO 20022.

EFTA

"The Fed has got a lot of industry support and, by acting as a catalyst, really got the ball rolling on the Faster Payments project," says Kurt Helwig, President and CEO of US payments industry group the Electronic Funds Transfer Association (EFTA).

"Now the majority of the Fed's Faster Payments work is done, they are focusing on some governance issues and trying to understand what the Fed's role in Faster Payments should be, going forward."

Other countries, especially those with fewer financial institutions than the US, have had an easier task in their payments improvement journey.

"Trying to compare the US Faster Payments initiative with other countries' Faster Payments experience isn't an apple-to-apple comparison," says Helwig.

"You can mandate a top-down Faster Payments move in countries with a small number of banks, but that wouldn't work in the US.

The marketplace has been evolving in the US to Faster Payments, and some US companies already have Faster Payment solutions such as Zelle and TCH's real-time payments (RTP) system. Faster payments won't happen overnight in the US, but the marketplace is responding to the demand for Faster Payments."

> "A DIFFICULT, BUT NONETHELESS ACHIEVABLE GOAL IS TO BRING ABOUT UBIQUITY IN FASTER PAYMENTS, AS THE TASK FORCE RECOMMENDED

OTHER INITIATIVES

While still a small player in terms of overall US payments volumes, PayPal-owned P2P payments platform Venmo has seen rapid growth.

According to a blog by McKinsey & Company consultants Rob Hayden and Liz Oakes, Venmo's exchanged value increased from $906m in the fourth quarter of 2014 to $3.2bn in the first quarter of 2016.

Sean Rodriguez, Federal Reserve Bank of Chicago

A blog by Glenbrook Partners consultant Elizabeth McQuerry notes that, responding to the faster payment capabilities of PayPal and Venmo, US financial institutions now have five faster payment rails:

- Push to cards: both major networks have developed a credit push payment option for their issuers via Mastercard Send and Visa Direct. Notably, both have cross-border capabilities;
- Running batch processes more frequently: The National Automated Clearing House Association (NACHA) network is now offering Same Day ACH credits and debits. NACHA oversees the US national ACH infrastructure;
- Bank-owned consortia have brought two new Faster Payments services to the US;
- Zelle, initially targeting the peer-to-peer use case, and
- Real-time payments from TCH, which is also likely to be extended cross-border in the future.

"This is a remarkable amount of innovation, even in today's fast-paced payments industry. All of these services aspire to be the dominant provider in their space," McQuerry wrote. "But these new instant payment services in the US exhibit limited interoperability."

"The ACH system operated by NACHA has moved from next-day to same-day, but that isn't real-time," says Cary Whaley, first vice-president, payments and technology policy at the Independent Community Bankers of America, a trade association for small banks.

"The funds sent shows up on the recipient's statement next day."

ZELLE

A near-real-time P2P digital payments network operated by bank-owned consortium Early Warning, Zelle was previously called ClearXchange.

In October 2017, Zelle announced a surge in third-quarter payments, resulting in over 60 million P2P payments valued at $17.5bn.

Bank of America says its customers made over five million Zelle transactions, totalling $1.5bn dollars in October 2017, up 90% from P2P transactions for the same period last year. One of Early Warning's owners, Bank of America now has over 2.5 million active monthly Zelle P2P users.

Zelle's mobile app enables users to make mobile payments from their bank accounts and Visa or Mastercard debit cards, even if their financial institution is not part of the consortium of 30 banks that backs Zelle.

The app, which competes against services such as Venmo and Square Cash, also allows users to split payments.

In November 2017, Zelle said it had selected ACI Worldwide as a technology partner, providing integration for financial institutions to connect to the Zelle Network.

THE CLEARING HOUSE

TCH, which is owned by 30 banks, launched its RTP system in November 2017. In a statement, TCH said this is the first new core payment system to be developed in the US in over 40 years.

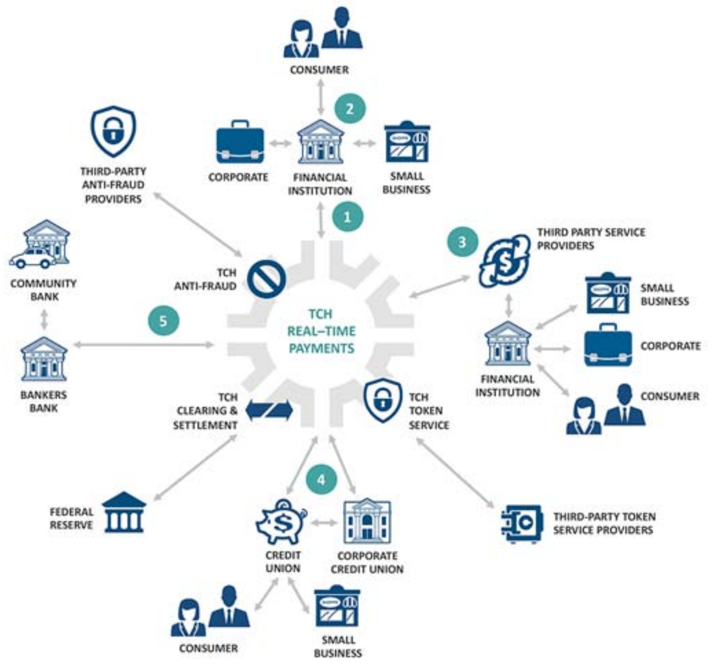
BNY Mellon, US Bank, Citi, JP Morgan, PNC and SunTrust are the first banks to adopt RTP, which was built using technology from Mastercard-owned Vocalink.

The RTP platform will support e-invoicing, bill payments, insurance claim payments and cash-on-delivery payments. RTP also provides immediate confirmation alerts that payments have been sent and received.

"RTP will be fully available in the first quarter of 2018," says Whaley. "Instead of batch processing, the RTP will receive single entries in real time.

"TCH's strength is that it will be doing 80% of the transactions of the present US electronic payments volume, but that only involves a handful of big US banks. For Faster Payments to work, they must be ubiquitous

US REAL-TIME PAYMENTS INFRASTRUCTURE



Source: The Clearing House

for every US bank, credit union and community bank."

Whaley notes that TCH is working with three major service providers in the US banking and payments space.

"It hopes these three providers will enable it to reach the majority of the US banking industry," he says. "But this remains to be seen.

"As a comparison with TCH, a small bank can develop a P2P app that lets its customers send money to any banked person in the US because that small bank uses the national ACH Network.

"The reason there is ubiquity in the ACH Network is because the Fed is involved in it and connects the big banks plus the smaller community banks and credit unions to it. TCH will need to build that ubiquity, and this isn't going to come immediately."

ECOSYSTEM

Whaley says the ICBA is very concerned that the Fed has not committed to the role of ensuring ecosystem ubiquity and interconnection between US banks and credit unions for real-time payments.

"The ICBA, the Credit Union National Association, and the National Association of Federally-insured Credit Unions wrote to the Fed in April 2017, asking it to play an operational role in real-time payments," he explains.

"This wouldn't be providing a regulatory mandate, but facilitating universal access and ensuring that financial institutions – since they have to connect to the Fed – would have to accept all payments that come via the Fed."

The letter said the ICBA, CUNA and NAFCU support the Fed providing central bank settlement capabilities to support all Faster Payment service provider functionality. "Beyond settlement capabilities, our organisations see three possible operational roles for the Fed," it said.

"First, the Fed could serve as an on-ramp to real-time payments, leveraging its connectivity among financial institutions to provide all with access to real-time payments.

"Second, the Fed could serve as an operator for real-time payments, a role the Fed currently serves for cheques, ACH payments, and wire transfers.

"Lastly, the Fed could operate a payments directory which could link to financial institutions, as well as to other private-sector payments directories."

The letter continued: "While there are many real-time payment applications in operation or under development, the work of the Faster Payments Task Force suggests none are likely to reach all financial institutions.

"We don't believe any of the potential private-sector Faster Payments service providers will be committed to the same level of safety, transparency, equitable access, and ubiquity as the Fed." ■

INDUSTRY INSIGHT: END-OF-YEAR REVIEW AND 2018 FORECASTS

Experts from the payments sector and financial services industry reflect on the primary developments during 2017, and look ahead to the new year to discuss with *EPI* where the industry is heading

MOBILE PAYMENTS: A CATALYST FOR CHANGE

Simon Pepper, head of product, Tola Mobile

On the whole, the payments industry has not encountered much change over the course of 2017. Payment services operating within Europe have been adapting their services in preparation for the introduction of the revised second Payments Directive (PSD2) in January.

However, this update in legislation has been well anticipated by the industry, and while many of these changes have been rolled out slowly this year, they are unlikely to fully disrupt the sector until the directive takes effect.

MASS MARKET ADOPTION

The fundamental requirements for enabling mass market adoption of mobile payments have also remained the same, with strong customer authentication, authorisation and payment transparency remaining at the forefront of all developments in technology and services across the sector.

The upcoming changes in light of PSD2 will, however, see payments providers place further value on these factors, as concerns over consumer security increase and the adoption rate of mobile money accounts among consumers increases globally.

In 2018, we hope to see mobile payments become as widely adopted in the UK and Europe as mobile wallet transactions across sub-Saharan Africa. Throughout this region, payments via mobile money accounts are rapidly overtaking physical cash as the dominant method, and are diminishing the mass adoption of bank and credit cards for daily use.

More consumers across Europe are now realising the benefits of paying directly via their mobile. Merchants are therefore increasingly looking to mobile payment providers to help them replace existing cumbersome payment processes with the simplicity of using a mobile phone number, to allow consumers to verify and make instant purchases for goods and services more securely.

BILLING IDENTIFIER

By using a mobile phone number as the ‘billing identifier’ for a transaction, consumers are able to eliminate the process of entering lengthy credit card details, which ultimately improves the entire payment journey.

Not only is the convenience of this process fundamental to the increase in uptake of mobile money worldwide, it also presents a clear opportunity for new players wanting to disrupt in the current market.

The nature of mobile payments will also allow merchants and service providers to maximise sales, by tapping into the downturn in consumer purchase rates which typically occurs towards the end of each month.

Charging purchases against a mobile money account enables consumers to fill the gap in the lack of available funds during the last two weeks before payday, giving them the opportunity to complete more successful purchases. As a result, we may well see mobile payments act as a catalyst for change in consumer shopping habits over the next year, whilst helping more merchants to continue driving sales. ■

BLOCKCHAIN FOR DIGITAL IDENTITY: 2017 HIGHLIGHTS AND 2018 OUTLOOK

Andre Boysen, Securekey

In the past year, we have seen a significant shift in the online marketplace, with several technological advances emerging and changing the way business is conducted online. Consumer buying patterns have shifted, while businesses have altered their strategy to adhere to the changing norm.

In the last year, among a long list of new technologies, one in particular – blockchain – has transitioned from an unknown concept to a household name. Blockchain has emerged as one of the most important tools in developing strong, secure digital identity in an online world full of bad actors and dark alleys.

In 2017, IBM released blockchain-based software Hyperledger Fabric 1.0, UPS joined the blockchain in the Trucking Alliance to create standards and education for the freight industry, and most recently American Express introduced blockchain-enabled cross-border payments using fintech startup Ripple.

It is clear that what began as a tool for solving problems associated with digital currency transactions has now become a critical element for a variety of sectors, making transactions easier and more secure for both businesses and consumers – problems that possess a multi-party trust issue.

Looking forward to 2018, blockchain will become one of the most important tools in developing SecureKey's digital identity ecosystem, in which consumers will be given complete control over the information they share, with whom and when.

Blockchain's distributed ledger technology enables new data architectures with distributed storage schemes while increasing data integrity – ultimately reducing the risk of hacks or mass breaches and providing consumers with peace of mind that their personal information is protected, and providing better information assurance to businesses.

The future is now, and blockchain will not be disappearing any time soon. ■

APIS MUST BE DISCOVERABLE AND REUSABLE

Danny Healy, financial technology evangelist, MuleSoft

The arrival of Open Banking at the beginning of next year will be one of the biggest shifts in the finance industry since the advent of online banking. Banks will be obligated to grant third-party providers access to customers' accounts through open APIs.

However, we have already started to see a number of banks take the initiative over the past 12 months and begin to drive innovation by opening themselves up through APIs, to enable idea sharing from beyond the four walls of the bank.

Yet if the banks are to get their Open Banking journey off to a successful start in 2018, the APIs they create need to go beyond compliance alone. 'Box-ticking' to satisfy the regulators will not offer any competitive advantage as Open Banking becomes widespread. Financial services will soon become commoditised and consumers will decide which bank to use in the same way they choose one fizzy drink over another, based on their personal brand preference.

PERSONALISATION

To avoid this, in 2018 banks will increasingly look at how they can offer innovative solutions beyond payments, such as personalised services tailored to the customer's needs.

Those that succeed in next year's Open Banking environment will be those that partner with third-party service providers to launch applications and services incorporating open banking data. With standardised and open APIs, third-party service providers will be able to create interactive and highly personalised services that securely access a customer's banking history.

For example, we will start to see retailers draw on open APIs to allow customers to check their bank balances prior to purchase, without needing to leave the retailer's website.

Key to getting this innovation off the ground and creating new banking services that stand out from the crowd will be ensuring that the APIs they create are discoverable and reusable.

In the same way that Apple's App Store taught consumers 'there's an app for that' wherever they have a need, 2018 will be the year that people working in and around banks learn 'there's an API for that' when they have a similar need to create a new service.

Banks like Barclays are already doing exactly this, experimenting with the capabilities that can be unleashed through its APIs during hackathons. ■

2018 PROMISES TO BE A GROUND-BREAKING YEAR FOR THE PAYMENTS SECTOR

Andy Davies, products development and strategy director, Pay360 by Capita

We may have seen the introduction of new £5 and £10 notes and a £1 coin in 2017, but cash is losing its crown to the younger generation, with more than one in 10 people aged between 25 and 34 using notes and coins no more than once a month last year, according to UK Finance.

This trend is likely to grow into 2018 as alternative ways to pay rise in popularity. Following on from the success of contactless phone payments pioneered by the likes of Apple Pay, more blue-chip brands are, for example, incorporating contactless technology into wearables, such as fitness and smart watches, but the boundaries are constantly being pushed.

Children are now using biometric payments as part of their everyday school life, and Peugeot-Citroen recently launched car keys embedded with a contactless Barclaycard chip. There are few limits to making everyday items smart and we expect to see further innovations next year.

SECURITY UNDER THE SPOTLIGHT

Under the spotlight for 2018 will be security, an area intensified with the upcoming GDPR. In 2017, we saw some high-profile security breaches which forced the issue of security further up the boardroom agenda, and 2018 could see a significant rise in requests for personal data to be deleted. Organisations will be able to benefit from consumer technologies that include biometric features such as facial recognition, fingerprint and iris scanning to provide additional reassurance to customers purchasing their goods and services.

These technologies providing new heights of security may help prevent a knee-jerk reaction of consumers requesting their personal data is deleted – data that provides valuable insight to organisations helping them create a frictionless customer experience and informing the shape and launch of successful new products.

AI TO ENJOY SIGNIFICANT GROWTH

Finally, an area where we expect to see significant growth in 2018 will be AI and machine learning.

This is technology evolving at lightning speed, and cutting-edge payment providers are continuously exploring new applications for its use. Through AI and machine learning, for example, organisations will not only be able to identify individuals who are falling behind on payments, but their systems will be able to intelligently tailor and time communications to them based on what they know has resulted in action in the past.

And if you add chat bots like Alexa and Siri into the mix, you can find a way to make more transactions online, which will reduce the volume of calls into contact centres – calls which are more costly to process. We expect to see dramatic leaps forward with fraud prevention, know your customer and anti-money laundering as these rules-based systems leverage deep learning capabilities.

2018 promises to be a ground-breaking year for the payments sector and, as the evolution of technology continues to rocket, it is tempting to try and wager what our predictions might be for 2019. ■

DIGITAL TRANSFORMATION TO INTENSIFY

Steven Murray, solutions director, Compuware

The digital transformation that banks have been going through will intensify to a whole new level in 2018 when PSD2 comes into force, ushering in the era of open banking.

This shift will require banks to be more integrated with the wider digital and fintech economy, having the ability to share customer data quickly and securely through APIs. In order to do so, they will need to fully leverage the core systems of record that are responsible for processing payment transactions and customer account information, and ensure they can integrate seamlessly with the new third-party services now calling on them.

As a result, we can expect to see a great deal of investment in modernising the mainframe environment in the coming year. This does not mean re-platforming; rather, banks can adopt modernised developer tools, cultures and techniques that enable non-mainframe experts to flawlessly update core applications quickly and build out the ecosystem needed to make open banking a success.

We can also expect to see banks looking to extend their performance monitoring capabilities to encompass the mainframe more than ever over the course of the next 12 months. This will be essential if they are to ensure they can identify the root cause of problems that arise with complete confidence and are not left vulnerable to taking the blame for failed third-party transactions.

Finally, given that open banking will provide third parties with access to sensitive payments and account information, banks will look to build out their ability to maintain a record of how and where customer data is being used, which APIs are requesting it and for what purposes it is being called upon, so they can provide a full record of data use and access if required. ■

2017 – A YEAR OF GREEN SHOOTS

Mark Hewlett, wholesale banking relationship director, Ebury

On the face of it, looking for "highlights" in the payment space in 2017 compared to what to look forward to in 2018 is a tough ask, as nothing really took hold and went mainstream for individuals or businesses to get excited about and adopt.

Taking a step back, though, 2017 could be looked back upon as the year of green shoots that will benefit end users in 2018 and beyond. After years of talking about improving how money moves, we actually saw some action.

It was a year of soft launches, preparation and collaboration as opposed to one of wholesale change, but we have seen a glimpse of the future. SWIFT's gpi and its tracker is live with a handful of banks offering it to clients. We have seen a number of blockchain/DLT/crypto collaborations and proofs of concept, and SEPA Instant went live in November.

All of these have the potential to improve the speed and transparency of cross-border payments going forward, providing there is wider adoption, and that is where 2017 was a tough year to ask banks to invest time in these new capabilities and roll them out at launch.

EUROPEAN BANKS

The vast majority of European banks are concentrating resources on other regulatory initiatives such as PSD2, MiFID2, Open Banking, Ringfencing and GDPR before giving these new capabilities to their clients. Against this backdrop, Asian and American banks have been better adopters and further down the track when it comes to improving cross-border payments.

Meanwhile, European banks have had to concentrate on making their data lakes available to third parties, including allowing third parties to initiate payments from their customer's accounts.

Whilst this gives non-European banks a head start, other regulators are watching Europe with increasing interest, so they may have to play catch-up in the future.

Despite the headway made the talking has not stopped, and a number of central banks and regulators are looking at DLT and their own crypto or digital currencies.

SWIFT continues to engage its members on how to improve. Others such as Ripple continue to build their networks and put pressure on the traditional rails.

Local and regional regulators, payment infrastructures and competition authorities continue to consult and press for more open access to non-banks and fintechs to shake up payments and banking – a good example coming from the Canadian Competition Bureau in November.

SWIFT GPI BECOMES MAINSTREAM

For 2018, we expect to see SWIFT gpi become more mainstream for corporate cross-border payments, and SEPA Instant to get more traction. It will be interesting to see what decision the Monetary Authority of Singapore takes at the conclusion of its Project Ubin, which includes looking into a digital Singapore dollar, and how other central banks react.

With regards to PSD2, without the SCA RTS coming into force until the second quarter of 2019, the benefits of PISP access will be muted in 2018 but watched with interest as banks start providing access to TPPs and how this changes the landscape.

There are some interesting moves in the mobile wallet space that could get interesting if they start linking up. It is probably still too soon to see blockchain/DLT going mainstream in 2018, but we hope for a good harvest from the 2017 shoots in 2018 and beyond. ■

LESS FANFARE, MORE BLOCKCHAIN

Stephen Holmes, CTO Digital Banking Lab, Virtusa

One of 2018's key developments will be the expansion of blockchain into several new environments that will force companies to react.

Firstly, we will see blockchain quietly being deployed into production at many banks – there will be less fanfare as we are no longer at the start of the 'hype' cycle.

Secondly, there will be consortiums formed in industry to tackle the issue of blockchain standards for specific areas of banking, such as trade finance or cross-border payments.

Finally, I think we can expect to see nation-states – in particular Russia and China – creating their own cryptocurrencies based on blockchain. They have been looking for a while at the possibility of trading commodities such as oil and gas in currencies other than the dollar, as this removes the need to comply with US regulators.

Blockchain offers a clear path to achieving that goal. ■

HARMONISING CROSS-BORDER TRANSACTIONS

Following a successful partnership, nexo standards chair Claude Brun tells *Briony Richter* how the business has enabled Carrefour to transform its payment infrastructure

The rapid rate of globalisation is forcing businesses to transact more frequently across country borders.

Cross-border instant payments create a seamless payment experience for businesses, with a platform that simplifies the payment infrastructure. Consumers are also making more global payments. For the industry, this means significantly higher volumes of payments being transacted. As a result, consumer expectations for digitally enabled, real-time cross-border payments are growing.

A recent study by Market Pay gives an insight into its collaboration with nexo standards. nexo standards enables swift, interoperable and borderless payments acceptance by levelling the exchange of payment acceptance data between merchants, acquirers, payment service providers and other payment stakeholders.

nexo standards chair Claude Brun tells *EPI:* "Cross-border payments have the potential to transform the world of card payments, particularly in Europe.

"Understandably there have been – and will continue to be – a number of challenges to overcome in the quest for seamless and harmonised cross-border payments. One of the main challenges is the need for a standardised payments infrastructure.

"The members of nexo standards, are dedicated to creating a unified global payments acceptance ecosystem that harnesses the efficiency and interoperability potential of the ISO 20022 standard, and have spent the last four years focusing on this very challenge."

By using nexo standards, all participants in payment acceptance can interoperate effectively, regardless of location. Harnessing cross-border payments with an instant payment platform enables the swift and secure transfer of money across borders.

Market Pay has reaped the benefits for the Carrefour brand since embracing nexo standards. The study reveals that since it has been established, Market Pay has handled 800 million transactions for Carrefour in Europe.

Highlighting the benefits of this partnership, the study shows that nexo's Acquirer Protocol has allowed Market Pay to offer acquirer services to Carrefour Group's businesses. It also states that since adopting nexo, operational efficiency has improved, saving time and money for Carrefour.

So far the partnership has been successful, and in the next three years Carrefour has plans to carry out nexo protocols across all its stores in Europe. The expansion will enable Carrefour's central unit in Paris to standardise the exchange of payment-acceptance data across Europe.

The study emphasises that nexo protocols are already able to support several payment services, like Apple Pay, Carrefour Pay and C-zam. The partnership sets Carrefour up to reach its target of being PCI DSS-compliant by the end of 2018.

CHALLENGES

Cross-border trade is growing so expeditiously that the pressure is starting to heighten on financial institutions to improve the efficiency of the process.

Brun states: "The current global payments market is very fragmented. The incompatibility of proprietary systems, together with the varying domestic protocols and legal requirements of individual countries, have resulted in acceptance infrastructures that differ between countries.

"This inevitably makes it difficult to expand into new territories or create payment infrastructures that operate across borders, as every time a company wants to set up in a new country, there is another new set of protocols to understand, making expansion very cost- and time-intensive.

"This level of fragmentation, and lack of cross-border interoperability, can also prohibit the negotiation of volume-based deals between payment stakeholders and hinder the development of innovative new payment solutions."

Moreover, there are several intermediaries involved in the cross-border payment process, so the execution time for processing is significantly longer than domestic payments. This increases costs, which is why it is so critical to integrate platforms that complement each other.

Brun adds: "As nexo standards is an open, global association dedicated to removing the barriers present in today's fragmented global card payment acceptance ecosystem, it does not have 'competitors'.

"nexo standards enables fast, interoperable and borderless payments acceptance by standardising the exchange of payment acceptance data between merchants, acquirers, payment service providers and other payment stakeholders."

The study highlights that Market Pay found the ideal partner in nexo standards to centralise payments within the Carrefour Group. Before the partnership, Carrefour experienced difficulty in negotiating the nature of the pan-European acceptance infrastructure.

Brun says: "nexo standards works with its members and the wider payments industry to establish a standardised and universally beneficial way to apply ISO 20022, manifested in a portfolio of implementation specifications and messaging protocols.

"The association actively responds to the needs of its members and their customers to ensure that the specifications and protocols remain agile, relevant and address the evolving needs of the fast-paced payments industry."

Sustaining an open and accessible global payments network has put a strain on cross-border infrastructure, incurring high costs. That, coupled with strict regulation, is pushing the industry to re-evaluate the structure of cross-border payments.

On the other hand, most high-value payments are made via a cross-border payment process due to the speed and ability to securely transfer large amounts globally.

Joining forces with nexo standards enables the Carrefour Group to process traceable transactions securely, regardless of location. ■

LEGACY SYSTEMS: REPLACING THE IRREPLACEABLE

An ever-frequent bugbear of large, historical financial institutions is legacy infrastructure. Built in decades long gone, the monolithic platforms struggle to keep up with the fast-paced demand of the financial sector today. However, replacing it is an uphill task – so how does one go about it? *Patrick Brusnahan* investigates

As payments evolve, banks and financial institutions need to move faster than ever. However, legacy systems are a hindrance.

According to Efma's *Innovation in Retail Banking* report, the two biggest priorities for banks are system integration challenges and the legacy technology landscape. This is at the forefront on the sector's mind.

"The biggest barrier to digital transformation in 2016 was the legacy technology environment," the report states.

UK-based vendor Dovetail, recently acquired by Fiserv for an undisclosed amount, is one of many firms trying to solve the problem. Speaking to *EPI,* Trevor LaFleche, Dovetail's vice-president, product marketing and analyst relations, sums it up.

He says: "I think legacy platforms are running out of steam. We find a significant replacement market in places where the technology isn't able to deliver on the needs of the organisation."

Dovetail prides itself on delivering an "out-of-the-box" capability to process payments. This results in a speedier process than a tool kit offering, which typically leads to a very long implementation cycle of around three to five years.

LaFleche states: "Our clients on the Dovetail platform are going live in between six and twelve months, because we start from the basis of doing this straight away in a modern way. From that point, you can go live and derive value much quicker."

Obviously, Dovetail is not the only company trying to make its mark in this way. Fiserv acquired Dovetail, but FIS snatched up Clear2Pay and Finastra added Fundtech to its roster for $1.25bn. In addition, core banking vendors, Temenos for example, are moving into the payments space. However, these companies may not be Dovetail's biggest competitor.

"There is still a lot of desire for banks to build their own systems at the higher end," LaFleche explains. "We see in-house as our strongest competitor. That's something we always see."

> "YOU START WITH HIGH-VALUE PAYMENTS AND RENOVATE THE HOUSE ROOM BY ROOM

He adds: "Some of the arguments just fall on deaf ears in some institutions that have a very ingrained IT development shop. You can show them a reinvented payments system that takes a few years, but then they move onto another project. They always forget that maintenance and payment systems evolve with regulatory change.

"We still find that some people are less aware of how much you have to invest. North America and Asia definitely have more of an acceptance to a more packaged product. In Europe, and some other geographies, there is still a strong desire to build. I wouldn't say we're completely out of the woods in terms of people understanding that it is not a good idea to build your own software."

Cyprus-based Hellenic Bank chose Dovetail in October of this year to help further its digital transformation plan. This followed a similar decision by Bank of Cyprus in February.

Why did they both pick Dovetail? "We fit very nicely into the shape of the project that they have," LaFleche says.

"They wanted a full payments reinvention and we had everything they needed right out of the box."

Legacy challenges differ from bank to bank, but why? LaFleche explains: "It varies on what kind of services and how far they're going in the front end. They're all beginning to realise that, unless you have the capability of processing payments in the back end, there's not a lot you can do in the front end. It's all based on the fact that they need a modern platform."

The hesitation from many institutions is inspired by the heavy task ahead. Replacing an entire system takes time and money. LaFleche concludes: "It is a challenge for banks to admit they need to modernise. It takes the alignments out of a lot of areas in a bank. It's basically open-heart surgery for a bank.

"These projects are quite big in scope and affect the facilities of the bank. What we found with organisation is that we can put in a programme to locate pieces that need significant improvement. Maybe you start with high-value payments, as there are fewer of them, and you renovate the house room by room over a period of time.

"In months, generally not years, you end up with a very robust and modern payment capability." ■

HYPERWALLET TARGETS THE GIG ECONOMY PAYMENTS SECTOR

Hyperwallet sees opportunities in low-value remittances for the fast-growing gig economy. *Robin Arnfield* speaks to Tomas Likar, vice-president of strategy and business development at the San Franciscan mass-payout specialist

Founded in Vancouver in 2000, Hyperwallet initially provided white-labelled C2C domestic and international remittances for Canadian credit unions.

It then entered the mass-payout market, enabling corporate clients to make large volumes of low-value payments to sales agents, employees and customers around the world.

These payments include rewards, rebates, incentive payments for market research survey participants, payments to clinical trial participants, payments to marketplace sellers and contractors, and commissions to agents.

In 2015, Hyperwallet decided to focus on the B2B/B2C payout market, closing its C2C remittance platform. At that stage, Hyperwallet was particularly strong in the direct selling market, handling agent commissions for firms such as Herbalife.

However, it was quick to capitalise on the need by players in the gig economy – also known as the sharing economy – to pay freelance contractors both domestically and cross-border. An estimated 9.2 million Americans will work in the gig economy by 2021, up from 3.8 million in 2016, according to combined research from Intuit and Emergent Research.

In June 2014, Hyperwallet received an undisclosed amount of investment from private equity firm Primus Capital to fund its expansion initiatives. These included hiring a number of experienced C-level executives, opening an executive office in Austin, Texas and setting up operations in London and Sydney.

"Primus Capital is still our main investor," says Likar. "Because it is a private equity firm, Primus holds investments for a while."

GROWTH

Hyperwallet has doubled the number of its payees since December 2015 when the business said it had made payments to over five million independent workers on behalf of its corporate clients.

> " IT DOESN'T MATTER TO US IF THE RECEIVER IS A CONSUMER, A SMALL BUSINESS OR A LARGER BUSINESS

"We now have 10 million payees on our system," Likar says. "The majority of our business is B2C rather than B2B. But it doesn't matter to us if the receiver is a consumer, a small business or a larger business. There are some implications from the compliance perspective, but, from a transaction perspective, it's much the same whether paying a business or a consumer."

GIG ECONOMY

"Two or three years ago, we were very strong in the cross-border sales commission field," says Likar.

"This has been a key area for us, although we also have some e-commerce marketplaces using us to pay sellers. But now the gig economy has become very important for us, and it has a very similar use case for making payments to the other client segments we serve.

"Uber drivers and Airbnb property owners, for example, need to receive low-value transfers either in real time or weekly or daily. We're doing good volumes in the gig economy, but we see a lot of room for growth there for us."

An international marketplace doing cross-border payments in multiple countries has to perform its own compliance and risk management, which is complex, notes Likar. "So a lot of marketplaces decided they don't want to touch payments, and we started to win a lot of business in the gig economy. The marketplaces just tell us whom to pay and how much."

HomeAway, the largest rival to Airbnb, is a client on whose behalf Hyperwallet pays its homeowners around the world.

"Gig economy companies are realising they need to improve their workers' payment experience," says Likar. "The ride-sharing platforms are very similar, and if a driver has a bad experience with one company, they can easily install a rival's app."

OPERATING MODEL

Hyperwallet can offer its clients low-cost international remittances as it maintains local bank accounts in destination countries around the world.

"We hold working capital in accounts at banks around the world and have local capabilities in over 100 countries," says Likar. "We keep enough funds in each local account to clear the typical volume of transactions we handle each month in that country.

"Once a month we do a top-up transfer via SWIFT to each account to ensure we have enough money there. We use local clearing systems such as Faster Payments in the UK and SEPA in Europe, and send our local banks files multiple times a day telling them whom to pay and how much.

"Our strength compared to other B2B payment providers is that our payments network was built for low-value payments," Likar continues. "Most of our clients do thousands or tens of thousands of payments a month, but most of these payments are under $1,000.

"We're especially competitive for payments up to $5,000. Large-value transfers, for example $500,000, can go over our network, but the sender might do better with a bank or specialist B2B provider which knows that space better."

While even the smallest payments require Hyperwallet to verify the receivers' identity, a lot more verification is required for large-value transfers.

"Also, we can't send large sums like $500,000 over the local ACH networks we use for low-value payments," says Likar.

Hyperwallet offers its clients three payout methods:

- **Card** transfers to Visa- and Mastercard-branded plastic or virtual prepaid cards are issued to their recipients and bear the client's brand;
- **Portal** is a multi-currency white-labelled portal bearing the client's brand. It is hosted by Hyperwallet and offers recipients a range of payout options, and
- **Hyperwallet Direct** is a set of publicly available APIs that enable companies to integrate Hyperwallet's payment functionality directly into their website or mobile platform or application. This means a Hyperwallet client can collect their payee information directly from their existing platform and application and send payments globally via Hyperwallet's network. "This leads to a better end user experience, but it is more complex than integrating with our portal," says Likar.

> "A LOT OF MARKETPLACES DECIDED THEY DON'T WANT TO TOUCH PAYMENTS, AND WE STARTED TO WIN A LOT OF BUSINESS IN THE GIG ECONOMY

PARTNERS

Hyperwallet has around 50 bank and non-bank partners with which it works to pay funds to recipients, including MoneyGram, Western Union Business Solutions, SoftBank Payment Service, Earthport and PayPal.

"These companies help us to get funds to destination countries," says Likar. "This means that recipients have multiple options as to how they get their money – direct into their bank account, cash pickup at an agent's office, deposit to a prepaid card, for example."

In 2016, Hyperwallet added Visa Direct as a payout method, enabling recipients to receive funds paid to a bank account associated with a debit card.

Hyperwallet offers Visa Direct functionality through the Hyperwallet JavaScript Widget. "This Widget enables clients to quickly plug into our platform and offer near real-time payout capabilities within their native application, minimal coding required," it said in a news release.

"Our Visa Direct partnership is picking up," says Likar. "But there needs to be more work done by us and Visa to promote the brand, as people still don't get the concept that they can enter their debit card number to receive their funds into their bank account."

A priority for Hyperwallet is adding new local funding methods, such as mobile wallets, in different Asian countries. "Because WeChat is such a popular payment method in China, we're looking at adding WeChat," Likar says. "Every Asian country has its own mobile wallet, so we need to prioritise which ones we add."

In Latin America – like Asia, another major market for Hyperwallet – the company is in the process of adding local currency clearing across the region, Likar says.

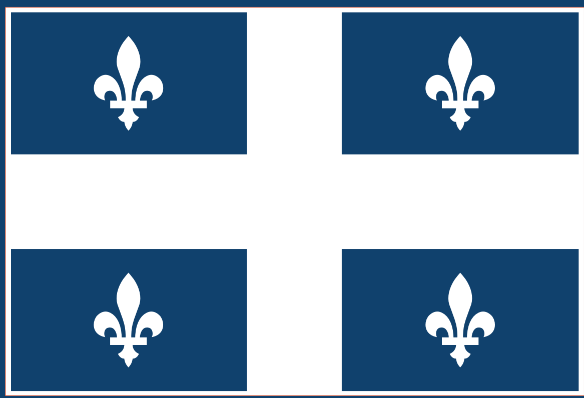
"In Europe, we expect to get business from marketplaces following PSD2's introduction in January 2018," he says.

"Marketplaces will need to comply with PSD2's requirement that they use a processor acquirer for their payments, which will generate business for us." ■

CANADA'S DESJARDINS STANDARDISES PAYMENTS ON OPEN ACCEPTANCE PLATFORM

Canada's Desjardins Group has implemented an open standards payments architecture from nexo to facilitate its clients' international payment card acceptance.

It is now looking to offer the architecture to other financial institutions via its Monetico acquiring joint venture with France's Crédit Mutuel. *Robin Arnfield* reports



Mouvement des caisses Desjardins is an association of savings and credit co-operatives *(caisses)* located mostly in Quebec.

It is the largest Canadian co-operative financial group, and the sixth-largest globally, with assets of C$258.4bn ($200bn) in 2016 and over seven million clients and members.

NEXO STANDARDS

As a payment service provider (PSP), Desjardins found it was spending too much time and money managing the integration of new payment solutions with high-maintenance legacy infrastructures.

So Desjardins joined Brussels-based nexo standards, which was formed in 2014 from three European payments standards bodies: EPASOrg, OSCar, and CIR SEPA-Fast.

The global association's ISO 20022-based protocols are designed to remove the barriers in the fragmented card payment acceptance ecosystem. It facilitates interoperable cross-border payments by standardising the exchange of payment acceptance data between merchants, acquirers and PSPs.

Across Europe there is a lack of harmonisation between different domestic payment-acceptance standards and messaging protocols.

A recent nexo presentation points out that a multinational oil company operating in 12 European countries, for example, would require 10 different interfaces between its terminals and acquirers, and 20 different interfaces between its terminals and its host systems.

nexo announced in September 2017 that BNP Paribas had begun offering nexo's acquirer payment acceptance messaging protocol across 14 European countries.

DEPOSITS

Largest Canadian financial institutions ranked by deposits Q3 2017 ($bn)	
Toronto Dominion	686
Royal Bank of Canada	624
Scotiabank	496
BMO	379
CIBC	352
Desjardins	138
National Bank of Canada	122

Source: Desjardins

MULTINATIONALS

"We're using nexo to deliver payment-acceptance services to our merchant customers who operate in multiple countries including Canada and Europe," says Normand Provost, Desjardins' head of international card payment standards. "Most of our merchants are Canada-based."

Working with nexo, Desjardins is harmonising its payment acceptance infrastructure and simplifying its exchange of card acceptance data to support its merchant customers' domestic and international requirements.

"nexo creates a level playing field for all stakeholders, and a better ecosystem for sharing payments data internationally, which is needed by larger stakeholders," says Provost. "Desjardins wants to move to the ISO 20022 messaging standard, as it's more XML-oriented, which is why we joined nexo – not just because we want to be international but also to make it easier for merchants to interconnect with POS terminal managers and payment processors via ISO 20022."

ISO 20022-based messaging protocols enable companies to standardise how their payment acceptance information is exchanged globally.

Desjardins' payment application adheres to nexo FAST POS terminal specifications, which are based on EMV chip-and-PIN technology and comply with the European Payments Council's SEPA Cards Framework.

The financial institution says the nexo FAST specifications have enabled it to develop a universally interoperable application, mitigating the need to redevelop the application according to the specific needs of each domestic payment acceptance infrastructure.

Desjardins says that, as a result, implementation costs for new payment solutions have been reduced by as much as 20%, and that it can now deploy enhancements to its payments applications six to eight weeks faster than previous deployment timeframes.

MONETICO

Desjardins' acquiring arm, Monetico, has registered its payment solutions brand in over 60 countries. "Monetico's goal is to become a world-class leader in payments by creating a range of solutions geared to local entrepreneurs and large-scale, international businesses," says Patrice Dagenais, Desjardins' vice-president, payment and business partnership.

"Monetico's strategy is to provide easier access to global payment solutions to stimulate innovation, facilitating global partnerships and enabling cross-border growth."

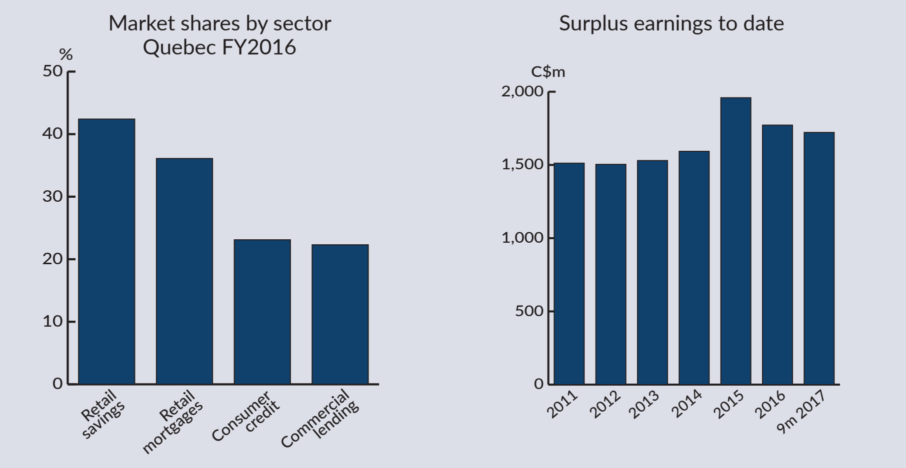
> **" NEXO CREATES A LEVEL PLAYING FIELD FOR ALL STAKEHOLDERS, AND A BETTER ECOSYSTEM FOR SHARING PAYMENTS DATA INTERNATIONALLY**

As Monetico has deployed nexo standards, Monetico-powered merchants can establish operations in new territories, uninhibited by payment acceptance complexity, Dagenais notes. Other benefits of nexo include delivering a consistent user experience at the point of sale across multiple payment types, and reducing payments vendor costs by tapping into a potentially global base of vendors and suppliers.

Dagenais says Monetico can be "parameterised" for each individual country, enabling merchants to deliver a consistent, familiar user experience for cardholders, regardless of location.

"A Monetico terminal will speak to the cardholder in their native language – regardless of the language used in the country where the terminal operates," he explains.

DESJARDINS – KEY DATA



Source: Desjardins

"We want to commercialise the technology we developed for Monetico, although we don't see that as our main objective," explains Provost.

"We're open to discussions with other banks and will work with international partners, but we're not quite ready to licence the Monetico technology to other players yet."

CONTACTLESS-ONLY

Monetico has developed a nexo-based contactless-only card reader, which can be used in unattended applications such as transit or parking, says Provost. "We've also developed chip-and-PIN mPOS card readers based on nexo," he says.

In April 2017, Desjardins launched Canada's first pilot of contactless Visa and Mastercard credit card payments on public transit buses.

The pilot – which was due to last at least six months and operated in conjunction with Société de Transport de Laval – involved deploying Monetico contactless card readers on STL buses in the Quebec city of Laval.

PARTNERSHIPS

In October 2017, Desjardins became a founding member of Montreal-based Institute for Data Valorization (Ivado), a group of industry professionals and academic developing data science expertise.

Desjardins said that it will pool its expertise with Ivado to promote financial products and services innovation.

"For Desjardins, Ivado membership is part of a process of prioritising the challenges of digital technology, which began with the creation of Desjardins' innovation laboratory in December 2015," it said.

"Cybersecurity, big data processing, performance optimisation and the design of analysis algorithms are all examples of possible that ultimately support access to digital banking services meeting the needs of today's and tomorrow's users."

Separately, Desjardins and pension fund La caisse de dépôt et placement du Québec (the Quebec Deposit and Investment Fund) have created an investment fund of up to C$75m. The two founders say the independent venture fund will support the growth of fintech and AI applied to finance in Quebec and Canada.

Caisse and Desjardins will invest equal amounts for a joint total of C$50m, with other investors also able to participate in the fund, they say. ■

FINTECH: AFTER A DECADE, BOOM OR BUST?

2018 will mark 10 years since 'fintech' – the buzz term for financial technology startups – entered the lexicon, threatening to totally upend the banking sector as we know it, writes McLean Roche Consulting's *Grant Halverson.* It has not done so yet, but will it?

Total fintech investment in the 10-year period 2008-2017 totals $53.9bn, including venture capital (VC), private equity and crowdfunding.

The key question is whether this level of investment is sufficient for a major disruption of banking. Uber, for example, has raised $11.5bn in funding and debt in 18 funding rounds since March 2009, and has success in a much smaller segment than financial services. Uber has raised the equivalent of 21% of total fintech funding.

Total fintech investments by VCs during 2008-2017 are $41.3bn, which is only 7.4% of all VC investments – not a dominant category and well behind e-commerce.

A review the major startup phases – including angel investing, VC startup investing, the 'unicorn' phase and exits through IPO or M&A – indicates likely results. The major fintech angel investing and VC startup investment categories are:

- **Peer-to-peer lending:** Total invested $6.24bn or 15%;
- **SME and business lending:** Total invested $2.83bn or 7%;
- **Student loans:** Total invested $1.93bn or 4.6%;
- **POS and online payments:** Total invested $2.89bn or 7%;
- **Cyber or digital asset designed to work as a currency or a value exchange:** Total invested $2.85bn or 7%;
- **Digital banking – retail banking using social media, mobile and web-based services, often supported by tools and rewards, for example budget tools:** Total invested $3.5bn or 8.5%;
- **Local and international remittances:** Total invested $1.67bn or 4%;
- **Wealth/investment and related tech:** Total invested $3.4bn or 8%, and
- **Insurances and tech:** Total invested $2.24bn or 5.4%.

It is significant that these nine segments total 67% of VC fintech investment. It is likely therefore that any major disruptor will emerge from these segments.

Unicorns are startup companies with valuations of $1bn or more. The CB Insights index has 217 startups rated as unicorns, with valuations of $752bn. Uber is the top-rated unicorn at $68bn.

Fintech unicorn companies are considered the most successful, and the nearest to an exit. There are 24 fintech unicorns with valuations of $75.95bn – 10% of the total. Of those, 20 are in the US and China, with each one in India, the Netherlands, Sweden and the UK.

IPOS OR M&AS

Fintech IPOs formed the smallest part of the fintech M&A sector. The McLean Roche Consulting review of M&As in 2014-2017 shows that 87% of transactions are M&A acquisitions by other, often larger, players, with 8% unable to IPO or find a buyer – leaving 5% which IPO.

The peak years for IPOs was 2010 with 18, followed by 2014 with 17 and 2015 with 12, while in the 2016-2017 year to date there have only been six with a total of $1bn. This raises the question: Was 2010-2015 the high-water mark for fintech IPOs?

Fintech's first decade is high on hype and spin, but very low on delivering its vision of a total disruption. There is no equivalent of Facebook, Google, Skype or Apple. That is not to say fintechs will not be successful and build current ideas into growth-oriented startups.

The sector, however, faces some serious headwinds which will challenge the valuations that are currently 50-60% higher than other investment categories and will require faster deliver and increased performance.

The modest level of investment to date, at $53.9bn, is not enough to create the next financial service giant – Facebook, founded in 2004, had 11 founding rounds with $2.3bn invested prior to its 2012 IPO. The largest fintech sector, P2P lending, has only S6.2bn in total investment over nine years, with a market cap today of $3.6bn.

The P2P example is salient. Launched when money was cheap, the sector has realised that it is not quite that easy to build a billion-dollar business. The incumbent banks are protected by considerable regulation, have vast resources and will not fall over easily: This is not the taxi industry.

These incidents feed the narrative that startup lenders do very little that is new or innovative other than offering speed while falling back on existing industry tactics once they have some scale. Most of the ideas are laser-focused on a small segment, and will not build size quickly.

The enthusiastic startups' key challenge is the realisation that the world is changing and they have to modify their dreams of world domination and accept an M&A outcome and work for a bank. This, in many cases, will not work as the cultures are vastly different between the young freewheeling startups and banks with their size, structure, politics, regulation and conservative approach to risk and technology.

Previous aggressive, trend-oriented acquisitions by banks, including monoline mortgage and credit card companies in the nineties, and mobile wallet companies in early 2000s, all ended with faded dreams for all parties. Fintech in its current state could well repeat this experience. ■

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