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We live in a “now” world. Consumers are now demanding more transparency, certainty and immediacy when moving their money, and they won’t settle for incremental innovation. Financial institutions are compelled to respond by modernizing their payment infrastructures to provide real-time payments capabilities that demonstrate their value to consumers, companies and government institutions.
Now in its sixth year, FIS’ annual *Flavors of Fast* report has evolved from capturing the early influences of faster payment schemes around the world to discussing how real-time payments are helping fuel the payments revolution now underway.

This year, the number of countries now live with real-time payments has jumped to 54 – nearly quadruple the number of countries participating in real-time payments in 2014. Fourteen more countries now operate real-time payments schemes since last year’s report, propelled by new services launched in Asia-Pacific (APAC) countries such as Hong Kong and Malaysia, eurozone countries launching SEPA Instant Credit Transfer (SCT Inst) services and others.

While real-time payments services continue to roll out around the globe, the epicenter of real-time payment development remains in APAC countries, where volumes are surging and account for two-thirds of total global spending. Countries such as India also lead the way in using real-time payments rails to deliver innovation in the form of open application programming interface (API). By bringing third-party API developers into the mix, new collaborative business models benefit consumers and business customers who rely on faster payments for a variety of transactions. We predict that many overlay services, such as those being developed in Australia, the United Kingdom and Europe, will soon become mainstream.

Further driving the payments revolution will be the migration toward ISO 20022, which will become the common global language for exchanging payments within and across borders. The consistency and collaborative exchange that ISO 20022 offers promise to provide cost reductions, greater agility and speed, and enhanced resilience and security in transactions.

We look forward to an exciting year ahead as additional faster payment schemes go live in Canada, Columbia, Hungary, New Zealand and Peru, for starters, and real-time payments gain further traction globally.

We also look forward to continuing our role as a global technology leader, dedicated to delivering the many benefits that faster payments can offer and advancing the way the world pays, banks and invests.

Please enjoy reading our *2019 Flavors of Fast* report. We welcome you to become part of our faster payments conversation.

Sincerely,

Raja Gopalakrishnan
International Banking and Payments
INDUSTRY TRENDS: What’s Next for Real-time Payments?
With real-time payments becoming increasingly ubiquitous around the world, there is a growing acceptance that this is just the start of a payments revolution. The advent of open APIs that offer empowering overlay services on top of the real-time rails has the potential to radically change the way consumers, retailers, small businesses, corporations and governments accept and make payments.

However, the picture around the world is not uniform. Some markets are driving ahead, bringing a plethora of innovation. Other markets are taking more time to construct new ecosystems and develop profitable business models at market level in multi-year programs. A few are wanting to see which routes are going to be successful before making serious investments.

So, what does the future hold for real-time payments? Of primary concern is how real-time payments can create a substantial return on investment, but also which areas are going to take off first and which areas can no financial institution afford to miss out on?

Of course, no one knows the definitive answers to these questions, but in the interview that follows, Elena Whisler, Head of Enterprise Payments at FIS, shares her expertise with a spot of crystal ball gazing.
Elena, you have seen the explosion in real-time payments systems from just a small number of markets a decade ago to becoming the mainstream component of a modern payments market. How would you sum up the current market status and what, in your opinion, will drive the next stage of growth in real-time payments?

The advent of real-time payments ushered in an era of modern, digital payment rails that offer near-instantaneous transactions with minimum friction. However, this is just the start; the reality is that it is all about the next stage in the process that builds upon this foundation. Real-time payments fundamentally change the way payments happen, but of much more importance is how the new instant payment rails enable changes in the way consumers, retailers, businesses, governments and, of course, banks interact. It is now about how new services can be developed to take advantage of real time, and how the new wealth of data being created can be used to improve the service and experience.

Are you seeing different approaches in regional developments or is there a more predictable evolution?

There is no clear or consistent picture in how markets approach real-time payments. Some markets have been obligated into action by centralized regulation, others have been more unilaterally innovative.

Asia has seen a rapid and dynamic rise in the use of real-time payments, and in the development of imaginative use cases to utilize them. India, China, Singapore and Thailand have even taken to reinvigorating the quick response (QR) code as a payment initiation mechanism.

By combining QR code-reading apps with real-time payments rails, these countries have opened up a massive untapped market and its increased acceptance has enabled payments to be made through social media channels as well as by street vendors.

In other regions/markets, like Europe, the U.K. and Australia, there have been market-level, structured approaches that rely on regulation and collaboration.

Meanwhile, the United States has been more cautious, steering clear of regulatory mandates in favor of a market-driven shift to real time. As the inevitability of real-time payments becomes more apparent, we can expect a more standardized picture to emerge with increased interoperability.

What’s important and consistent across regions is the drive for open-loop systems, rather than closed-loop environments that lead to duplication and unmanageable solutions for all constituents.
What different approaches are there to the development of overlay services on the real-time rails, and which is the best path to success?

The global picture is varied on this point as well. In some cases, overlay services are being developed at market level while others are being done on a competitive basis; market- or regional-level standardization doesn’t happen overnight. It’s important to remember the specific problems the solution is trying to solve, bearing in mind the existing infrastructure, culture and maturity differences.

The need for standardization is important, especially if local services are to be interoperable across borders. Work is ongoing at national or regional levels to develop detailed standards for overlay services, and procurement processes are underway for the central infrastructure required to support them. The most common areas being worked on are Request to Pay, aliases and person-to-person (P2P) payment services. We can expect to see more of these come to market in the year ahead.

Equally, there are some market leaders who are driving real-time payments into new areas on a competitive basis. These are typically areas where there are big advantages to the stakeholders in switching from card payments to real-time payments, or for those in closed-loop scenarios.

What benefits do overlay services bring?

The most important benefit is usability. With open APIs enhancing imaginative overlay services, the payment itself becomes a frictionless element in the process. Consumers are demanding ease of use, transparency, certainty and immediacy when moving their money. It is the overlay services that deliver the improved user experience.

Making services more accessible is key. With services like “Request to Pay,” individuals, retailers and businesses can request and give consent for payments while control remains in the hands of the account holder. The use of aliases when sending or requesting payments means users do not have to enter long and complex account numbers to pay; it removes the need to log on to online banking apps to make payments. Interoperability and openness will be critical for successful execution of these two services.

The fact that mobile payments are increasingly the key channel for payments is down to overlay services that ensure an easier, simpler and more consistent customer experience. As we move from simple P2P payments to more complex use cases like consumer-to-business (C2B) and business-to-consumer (B2C), we will see more overlays offering instant payments through mobile devices, i.e., disbursement payments for insurance claims, contractor payments, tax refunds and other business services that benefit from real-time settlement, a critical component of day-to-day operations.

Overlay services can also draw on the additional data that is becoming available with real-time payments to inform and assist customers from budget management to better-targeted product recommendations. Moreover, additional data to help manage fraud exceptions cases alone are expected to help benefit consumers and corporates alike, ultimately providing better data elements in enriching payment patterns.
How about consumer adoption? Is there a real appetite for real-time payments?

Although there are many benefits for banks in moving to modern payment rails, the focus needs to shift to making real-time payments better, simpler and more transparent for consumers and other end users. Where payments used to be clunky and cumbersome, real-time payments promise a smoother experience with the payment embedded in the service.

There is a lot of work to be done in this area. India is one market which has successfully integrated real-time payments with mobile and we can see the results with 1,000 percent plus growth rates. It is only by tapping into how consumers want to make payments and expect to see them developing that we can alter habits and increase adoption.

It is important not to forget the importance of clear communication, including brand recognition, in the acceptance of real-time payments. This could be through the provision of loyalty benefits or other incentives that can help shift consumer behavior in the short term. Consequently, many leading retailers and service companies have a unique role to play in driving adoption. We should see new offerings coming to market to kick-start this shift in the upcoming year.

How about adoption in the corporate sector?

For corporations, the size of the prize is huge – improved cash management, minimal exceptions, automatic reconciliation, etc. However, payments processing within corporations is typically complex with multiple system dependencies. Risk-averse companies are taking their time to evaluate the potential and are keenly watching the progress of their banking partners. The leaders in the corporate space are already moving ahead and I expect to see some high-profile examples coming to market in the next year.

In the B2B world, we can expect a slower evolution due to legacy systems that may need to be updated or replaced with newer technologies. However, this does not diminish the fact that the potential for real-time payments in the corporate space is huge. Once the value is proven, this sector will catch fire and the financial services industry will need to quickly be able to respond with new solutions. Therefore, financial institutions and fintech firms should look at pilots and sandboxes and test with more innovative businesses to ensure readiness.
Data is central to the financial world – how do real-time payments facilitate information flows?

With most real-time payments schemes based on the international ISO 20022 standard, payment transactions can now be sent with additional information that aids reconciliation and increases transparency. The use of ISO 20022 enables the exchange of richer data, including longer references, and extensible remittance information. This common standard also simplifies message exchange between international and domestic payments with enhanced data quality, improved regulatory compliance, optimized payment reconciliation by the beneficiary, increased straight-through processing, easier/simpler cross-border payment … and all with improved efficiency at lower costs.

Banks must now determine how to manage, use, process and store data they have not previously had to handle. This requires a sound strategy and action plan for how to embrace the new data capabilities that can create added business value along the entire payments value chain. I foresee that in the near term, data will be the new battlefield for competitive differentiation.

What developments do you expect in the fraud and risk management space?

The good news is that we do not need to start from scratch; it is a matter of transferring the lessons learned from other payment mechanisms, such as cards, into real-time payments. But banks need a consolidated and unified approach to fraud management to get a better overall picture. By leveraging new technologies such as artificial intelligence (AI) and machine learning, banks can reduce risk, improve exception processing, simplify authentication, mitigate ID theft and reduce phishing attacks – the same fraud issues that plague other types of payments.

What influence will cloud-based processing have on real-time payments?

Accessibility of payments infrastructure is central, and cloud-based processing services are increasingly a powerful option to facilitate the decentralization of processing and inspire innovation. It is a happy coincidence that the growth in cloud-based processing parallels the explosion in real-time payments. Outsourcing payments also levels the playing field by opening up the market to smaller and even non-bank players.

With a hosted payments service comes lower costs and easier compliance as regulation changes. Service agility is also improved as is the flexibility to adapt to new schemes/services. As volumes are in a state of growth, fluctuations in volumes can be accommodated quickly and easily without the need to invest in new infrastructure. Indirect models enable new entrants to quickly get to market, and open API-accessed services expand the participation of third parties, improving adoption rates exponentially. For larger institutions, it liberates them from the constraints of legacy systems, allowing greater flexibility and faster time to market. A cloud-based service also speeds up the move from pilot scheme to live production.
Finally, how is the changing face of the industry going to influence real-time payments?

Simply put, the number of participants at all stops in the payments value chain increases. Retailers and fintech firms are embracing open payments initiatives with innovative ideas to extract more value from payments (enhanced customer engagement combined with lower costs of handling and processing). More fundamentally, by deeply embedding payments into normal payment and purchase processes, they become invisible. As a result, investment in “Paymentech” has never been higher, with venture capitalists betting big on payment entrants in the $1.9 trillion industry.

The attraction of real-time payments is resulting in increased consolidation across the payments space as credit card companies and tech giants grow their stakes in the future of real-time payments. Mastercard and Visa have both been increasingly active in real-time payments, signaling that they see them as the key way to pay both within and cross-country borders. FIS itself is significantly boosting its investment in payments and market reach through the acquisition of Worldpay, with our combined organizations processing 75 billion transactions per annum. In parallel, tech giants like Amazon, Facebook, Google and Apple are making regular announcements in the payments space highlighting the benefit of embedding payments into their services, often primarily with an eye on the data and customer behavior analysis that comes with it.

Real-time payments are the new frontier and it is all up for grabs. The greater the industry consolidation and investment, the faster we will see real-time payments accelerate in adoption, value and volumes.
FIS’ annual *Flavors of Fast* report, now in its sixth edition, traces the extraordinary growth of faster payment schemes and their associated services around the world. Our first report in 2014 documented 14 live schemes and by 2018, that number had grown to 40 as real-time payments became a catalyst for the global digital economy. This year, summer 2019, the number of live schemes has jumped to an astounding 54, bolstered by the launch of new services in Asia and the expansion of Europe’s SCT Inst scheme to 20 eurozone countries.

But the real-time payments rails are just the beginning. We see early adopters using open API-enabled services as a springboard to facilitate innovation in real-time payments through new, collaborative business models. To achieve this, we see a global shift toward global messaging standards like ISO 20022 that embed payments into the fabric of the digital economy and that integrate payments deeper into the supply chain. We predict this is the start of a continued revolution in faster payments schemes, and one that will make speed just a single chapter of a much larger story.
Movers and Shakers

With a total of 54 national real-time payments systems already live today around the world – an increase of 30 percent from 2018 – an ever-increasing percentage of the world’s population has access to real-time payments. Many of the newly launched services are SCT Inst-based in eurozone countries, but the Czech Republic, Hong Kong, Saudi Arabia, Malaysia, Romania and Norway have all launched new services since the summer of 2018. Over the next year or two, we can expect Hungary, Canada, Columbia, New Zealand and Peru to be live (currently under development), with Vietnam having announced its intention to develop a real-time payments service.

India continues to lead the way with a massive 10-fold increase in value and an eight-fold increase in transaction volumes on its Immediate Payment Service (IMPS). Indian demonetization was a huge boost for cashless payments, while the support for mobile numbers to be used for real-time payments added convenience and largely drove the volume. Elsewhere in Asia, Singapore’s Fast and Secure Transfers (FAST) service continues to grow strongly, with a 50 percent growth in both volume and values transacted. China’s growth was strong but not meteoric, as the People’s Bank of China strengthened its monitoring and regulation of third-party payments providers (primarily Alipay and WeChat Pay) by forcing them to process transactions via the NetsUnion centralized platform rather than directly with local banks. Regardless, China grew volumes by 20 percent and value by almost 50 percent.
In Europe, the growth in real-time payments schemes is primarily driven by the eurozone SCT Inst, with 20 countries now signed up. Outside the eurozone, Sweden saw strong growth with volume doubling and value almost tripling. The U.K. was steadier with 20 percent increases in both volume and value. Meanwhile, Poland and Turkey both witnessed volumes increasing by 50 percent in their local markets.

Much of Africa has solved the real-time payments issue in different ways (often through mobile phone-based services) rather than financial infrastructure changes. Nevertheless, Ghana experienced volumes tripling and value increasing six-fold. Nigeria also experienced strong growth, with volumes doubling, while South Africa was steadier with a 20 percent increase in the number of transactions.

The established Latin American services included strong growth in Brazil, with a 50 percent increase in volume and a 75 percent growth in value transmitted. Other regional services saw little movement in numbers. In North America, however, while Canada has pushed its entry to 2020, the recently launched services in the U.S. have bullish predictions for transaction volume – with expectations of $3 billion daily by the end of this year, $4.6 billion daily in 2020 and $6.4 billion by 2021.
Services to the Fore

Now that the payment rails are in place, the focus is shifting to the development of new innovative propositions that add value and grow volume. The emergence of open API-enabled services that utilize real-time payments is looked upon as the major driver of increased adoption and usage. They significantly boost the ability of payment providers to work with third parties and create real value for end users.

Real-time payments enable a wide range of use cases. In the P2P space, for example, parties can quickly deliver gift money, split a check or pay a babysitter. In the B2B context, the service can be used to integrate payments or pay invoices. As the need for interoperability grows, open APIs provide the mechanism for financial institutions to connect to the outside world and explore new use cases and innovations on a global scale. The emergence of faster payments systems may present challenges but, as these systems become more ubiquitous, consumers and merchants are increasingly going to expect to receive their funds quickly. Institutions that fail to deliver faster payments risk getting left behind.

Opening Up to Connectivity

In an interconnected world, real-time payments have become a catalyst for innovative services. In Europe, PSD2-compliant APIs are now being rolled out in sandboxes. While not live, these are showing great promise for smartphone and business apps with built-in payments through e-wallets. Open banking through APIs continues to grow in prominence and we can expect more regulation to follow in North America, Latin America, the Middle East and APAC, with a similar scope to the EU’s PSD2 and the U.K.’s open banking initiatives. API-based solutions act as a catalyst for adoption of real-time payments and collections. This technology enables businesses to integrate banking services (i.e., payments, collections and transaction enquiries) directly into their internal systems and processes to provide an instantaneous end-to-end customer journey.

Innovation in payment systems is advancing rapidly, making transactions frictionless and substantially reducing transaction costs for both businesses and consumers. The consumer experience for payments will increasingly become a battleground for financial institutions, especially around authentication for PSD2 on third-party applications, as traditional banks compete with new challengers. We can expect more retail wallets for both e-commerce and in-store payments to appear in sectors that are focused on a frictionless checkout process using biometric authentication, such as supermarkets, fuel stations and quick-service restaurants.
Data-led Growth

A further accelerator comes from the ongoing migration to the ISO 20022 messaging standard and enhanced data usage. The majority of recent real-time networks are already based on ISO 20022, which is without doubt the de facto standard for modern payments services. With ISO 20022 comes the ability to send more data with the payment message, e.g., invoice data, further accelerating the development of new services and growth in real-time payments volumes. ISO 20022 is increasingly being adopted by other areas of payments (ACH, RTGS, high-value, FX, treasury, etc.) and financial services, further boosting the investment in data capabilities. This is almost certainly going to be a key differentiator for the payments leaders of the future.

The availability of real-time payments services provides a key benefit to businesses, merchants and consumers around the world, giving them quicker access to capital and a more stable financial footing. The data provided by a faster payments system also offers recipients insights into their payment patterns, allowing them to make smarter, more informed financial decisions.

The importance of data, and the AI and machine learning that operate on it, will grow with intelligent fraud prevention being applied to payment transaction data in a real-time payments world, tempered by increased data protection and privacy concerns.

As banks adopt real-time payments worldwide, new capabilities will emerge to operate in real time, such as corporate cash management solutions for real-time cross-border payments, virtual accounts and fraud protection innovation. Early adopters of real-time payments in all sectors have benefited from this transformation with instantaneous transactions and improved cash flow. Digital transactions will undoubtedly become the new normal for payments and collections over time for those moving toward a digital business model for greater efficiency and productivity.

As new domestic real-time payments schemes come online across the globe, the obvious question that arises is how long before they interconnect? We will inevitably see more interoperability between local schemes within a region, but will these just be closed networks between participating financial institutions, or something more open? Some schemes are already active in this area. European schemes outside of the SCT Inst eurozone are looking to accept euro real-time payments (P27 in the Nordics, eastern European schemes, U.K. Faster Payments, etc.), and Southeast Asian countries have bilateral agreements on cross-border real-time transactions, but the idea of interoperability is not yet the de facto aim. However, with the growth in open banking services through APIs and usage of ISO 20022 messages, we can expect these restrictive limitations to be lifted.
OPEN API-ENABLED SERVICES: Jet Fuel for Real-time Payments?
Since the emergence of internet banking over two decades ago, the industry has seen a seismic shift in the way banks and their customers interact. The pace of change has been quick, and we find ourselves in a world where online and mobile channels are now the predominant method to access banking and payment services. But this is just the beginning. The rollout of real-time payments continues around the globe, although the focus is shifting to the service layers that will sit on top of the new rails. The new service layers are enabled by open APIs that, when implemented, will help to drive volume growth. Welcome to the open payments revolution.

Driven initially by regulatory mandates in Europe and the U.K., open payments initiatives are encouraging a global wave of innovation. With the New Payments Platform (NPP) real-time rails in place, Australia is already planning open access to account information, with open API-based transactional services expected later. Mainland APAC countries are also looking into open API-enabled services. Hong Kong has announced a phased release from account information to eventual transactional capabilities, and banks have released API interfaces. In New Zealand, while still without a bespoke real-time payments service, the 2020-2021 release is primarily focused on the open API model to strategically enable the country’s digital economy, rather than simply on faster payment rails.

In short, banks must allow trusted third parties to access customer account data and enable the ability to initiate payments through applications not directly controlled by the customers’ banks. APIs are used as the mechanism to achieve this, allowing third-party providers access to the banks’ data infrastructures in a way that is both open and secure.
**Shifting Gears**

Real-time payments were just the first step. They solved the bank-to-bank communication angle, but open APIs go a step further by addressing the customer/corporate interaction with the bank. Open API implementations are only now beginning. Though consumer services were seen as the primary business opportunity, corporate relationships and, most importantly, the management of real-time consent and mandates may be more interesting. Companies want improved access to their own information, and that of their customers to offer better-tuned offers and services.

With open API capabilities, banks and businesses alike can develop new business models in partnership with third parties that deliver new ways to generate transactions with better-targeted products offerings. For example:

- Lloyds Bank in the U.K. announced a collaborative venture to provide motor dealerships with real-time loan payments through a commercial direct debit API. The program uses real-time payments rails to deliver instant loans to motor trader clients, who can then make investment decisions, including at a vehicle auction, with the knowledge that they will receive cleared funds in their accounts almost instantly.

- International Air Transport Association (IATA) Pay is an initiative that leverages open APIs with real-time payments to offer a disruptive new payment model for consumers when purchasing a ticket from an airline website. IATA is working with Deutsche Bank on a prototype for Europe to collect customer payments directly from consumer accounts rather than the usual debit or credit cards, and all in line with the newly revised EU PSD2. Starting with the German market, similar prototypes/pilots will be rolled out in other jurisdictions soon after.

When open payments became a topic of interest a few years ago, giving external parties access to customer account data was unthinkable. Though the use of APIs opens the market to greater competition around customer loyalty and engagement, it also offers an opportunity to better engage with customers. APIs are not merely another technical interface or channel that needs support; rather, they are a radical enabler for creating new and attractive customer experiences – and deeper customer loyalty.
Overlays Fueling Real-time Innovation

Across the world, as faster payment services are combined with the open payments paradigm, a wealth of innovative services are being proposed, sandboxed, piloted and rolled out. These initiatives confirm that the conversation about faster payments has shifted from merely building the business case for a faster payments scheme into a dynamic discussion on how faster payments can add real value. Below are some of the key overlay service developments.

REQUEST TO PAY
The ability for individuals, merchants and businesses to pull a payment from a customer or client.

Europe – EBA CLEARING published a blueprint (for public consultation) for a Europewide Request to Pay solution. The blueprint is payment-scheme agnostic and the originator of the request can indicate in the message which payment scheme the actual payment should use. The SCT Inst scheme is set for Request to Pay services as the European Payments Council (EPC) is due to complete standards for E-Invoicing Presentment and Payments (EIPP) by November 2019.

Europe – The EPC also recently released the “Mobile Initiated SEPA Credit Transfer Interoperability Implementation Guidelines.”

U.K. – Request to Pay enables the payer to pay in full, in part, decline or ask for more time, giving them greater control.

Australia – Osko on NPP allows payment requests to be issued with a description from one or more parties; recipients can then respond with a payment in real time.

Malaysia – Request to Pay for mobile commerce and e-commerce applications.
PAYMENTS THROUGH ALIASES
Being able to pay without the need for customers to use long, forgettable account numbers to transfer money to recipients.

**Singapore** – PayNow in Singapore allows transfers using a mobile number, national identification number and even a company registration number as a proxy address for the recipient, enabling businesses to migrate from traditional checks and cash to electronic payments and collections, reducing both costs and risks.

**U.S.** – Services like Zelle add important capabilities to underlying payment systems by populating and maintaining directories of aliases, establishing a common user-friendly experience, creating awareness and preventing fraudulent transactions.

**Australia** – PayID is a national alias scheme that allows account holders to link a phone number, email address or company number to a bank account.

**Poland** – The BLIK payment scheme (launched in 2017) enables real-time transfers to a beneficiary’s telephone number if it is registered in the BLIK alias database. BLIK allows users to pay through numerous channels, including online, mobile, ATMs, shops, post offices, local administration offices and through various service providers.

**U.K.** – PAYM has allowed P2P payments to be made using mobile phone numbers as an alias for bank account numbers since 2014.

**Thailand** – AnyID uses an alias beneficiary mechanism to eliminate the need to enter long bank account numbers. Bank account holders register bank accounts against a proxy ID of their National Identity Number or a mobile phone number.

**Hungary** – Funds can be transferred using a payee’s mobile phone number or email address if the aliases or secondary account identifiers are registered centrally, with initiating banks authenticating the references at the time of initiation.

**Malaysia** – P2P payments can be sent through alias services (Proxy Addressing Service) using mobile numbers or a national ID without knowing the bank account information of the recipient.
**P2P SERVICES**
Making direct real-time payments from an application.

- **Australia** – Osko runs on NPP, offering instant funds transfer payment service.

- **Malaysia** – P2P payments can be sent through alias services.

- **India** – Money transfer apps Google Pay and Paytm feature chatting capability. Chatting apps WhatsApp and Hike have instant payment mechanisms.

- **China** – Market leaders Alipay and WeChat use QR code vouchers to integrate instant payments and add loyalty elements to mobile wallet.

- **Thailand, India, China and Singapore** – Retailers, street food vendors and motorbike taxis display a QR code that customers scan for instant payment.

- **Thailand and the Philippines** – Government payments use QR codes and underlying faster payment rails.

- **U.K.** – PAYM is a P2P payments mechanism using mobile phone numbers to send transfers (alias) and has been live since 2014 with over four million registered users.

**CONFIRMATION OF PAYEE**
Gives greater assurance that users are sending their payments to the intended recipient.

- **U.K.** – The U.K. Payment Systems Regulator has issued a specific direction to ensure that the U.K.’s six largest banking groups, covering around 90 percent of bank transfers, fully implement Confirmation of Payee by March 31, 2020.

**REAL-TIME PAYMENTS AT POS**
The ability to pay for goods and services directly at the checkout without the need for cards.

- **France** – A supermarket chain is leveraging its financial services wing to simplify the checkout process for its client base, using open banking APIs based on PSD2, through its smartphone app. Customers can directly pay at checkout and receive offers and discounts based on their behavior and history through the app.

- **Europe** – Air travel industry (IATA) is working with Deutsche Bank to enable airlines to collect customer payments directly from consumer accounts for travel ticket purchases.
CORPORATE PAYMENTS
Going beyond retail payments to add services for corporate customer payments.

**Australia** – Osko offers a “Payment with Document” service that allows governments and organizations to send documents attached to payments in near-real time.

**Portugal** – Offers Instant Loans service, in which banks use SCT Inst and open API banking to credit-check loan applicants and transfer funds instantly.

**Poland** – Harbor customs offer just-in-time customs reporting and payments for import/export at port.

A Brave New Open World
It is the combination of real-time payments with open APIs that creates real-time commerce, which is where opportunities lie. By applying broad sets of data to real-time payments, along with the basic transaction information, firms can unlock an additional layer of value and bring commerce to life.

In the traditional closed banking world, all assets were owned by the bank. With open payments, the work is distributed and customized, with value generated through shared data and an abundance of information. Open payments promise to develop much closer relationships between customers and financial service providers by encouraging a sense of dialogue and mutual benefit in managing money effectively and easily. If customers can see that their banks are using their data prudently to generate real value, then all parties can benefit.
Winning in an Open World

Only by delivering value to the customer and a personalized experience in exchange for their data can banks succeed. Customers simply expect more. While open payments remain an inevitability, not all banks are actively pursuing this equally across the globe. Many are caught up with local regulatory demands, such as PSD2 in Europe and faster payment initiatives elsewhere, and many banks are often shortsighted to the strategic implications of going beyond basic compliance. This is reflected by the lack of widespread live open banking services; currently, most are still just sandboxes (pilot schemes) and proofs of concept.

The lack of standardization in open payments potentially slows development as interoperability remains unfulfilled. Many banks are issuing their own APIs and publishing to developers, and other countries (U.K., EU, Australia, Singapore and others) are working on standardizing, but there is no common international standard. The Middle East and North America are taking steps and looking to develop standards, with or without government regulation. In the U.S., banks have been looking to the Federal Reserve to regulate open banking.

Information Is Power

Data is the central tenant to open banking. The long-term digital success of organizations depends on their capacity to share and consume digital information across departments and borders. If openness becomes the new normal, then players will need to create compelling propositions for customers.

With intelligent data usage come better offerings and expanded relationship via partnerships with fintechs. Consequently, it is vital to develop ecosystems that leverage relationships fueled by insights into payment behavior. There is a growing recognition that banks need partnerships for faster innovation on immediate payment systems. Working closely with outside partners will bring speed and agility to the innovation process. In fact, it is very likely that players not typically associated with payments will drive significant investment in new solutions that increase customer convenience, and subsequently grow the adoption of real-time payments services.
Open Revenue Opportunities Abound

Financial service providers must embrace new technologies and better leverage the data in their systems to secure a successful long-term future. Open payment initiatives using APIs enable banks and fintechs to build innovative new solutions, improve their customer experience and increase revenue streams in the form of license and usage fees. As collaboration between fintech providers and banks grows, the revenue for both partners will follow suit.

The key to identifying and maximizing revenue depends on the API product management strategy and unlocking the potential of financial data to realize revenue opportunities by monetizing the value of new services. As aggregators and providers of customer and transaction data, banks can collaborate with fintechs to provide financial products and services, which, in turn, will increase revenue stream for banks. Based on transaction data and customer demographics, apps can be designed to provide focused marketing and customized products. As providers of payment services and account information, banks can enable third-party providers to offer flexible payment options over digital channels that create unique customer experiences and new revenue opportunities for financial institutions by authorizing payments originating from multiple digital, social media and e-commerce sites.

Strong customer identification services can validate and authorize users with their internal customer data. This satisfies the need for minimum paperwork and agile processes that create an improved and frictionless customer experience. With open banking, deep analysis of customer financial behavior will help drive financial planning and forecasting apps to provide suitable lending, investments and savings products. Insights from customer data will help customize and tailor the financial planning products with improved turnaround time and value. In the lending space, APIs that speed up loan origination or streamline loan servicing lead to greater income, better customer service and more repeat lending customers.

APIs that enable predictive and cognitive insights provide deeper insights on customer buying patterns, financial discipline, savings and spending patterns. This is a useful tool for customizing products for specific customer groups and improving product suggestions.

Open payment APIs and supporting business models are still evolving. There is no one-size-fits-all model available for pricing and revenue, but there is no doubt that financial service providers and fintechs can increase their revenue by embracing and adopting open banking to develop innovative products.
FASTER PAYMENTS DEFINED AND COMPARED
A Definition of “Fast”

The Flavors of Fast definition of a faster payment:

“Inter-bank, fully electronic payment systems in which irrevocable funds are transferred from one bank account to another, and where confirmation back to the originator and receiver of the payment is available in one minute or less.”

We may consider faster payment schemes to be a modern phenomenon, but the first retail schemes to embody real-time characteristics date back to the early 1970s. Japan had an operational payment system in 1973, and Korea and Switzerland had one in place in the 1980s.

On a basic level, fast payments can be defined as payments in which the transmission of the payment message and the availability of final funds to the payee occur in real time, or near-real time, as close as possible to 24/7. As we move from fast payments to faster, factors such as customer perception of real time should be considered. Consequently, faster payments do not need to be strictly real time, immediate or instant.

Operational faster payment services function within nation states in a single national currency. There are exceptions, including the release of SCT Inst – where euro payments cross national borders – and P27, which offers multicurrency cross-border payments in the Nordic region.

Looking ahead, it is likely that established domestic faster payment systems will be interlinked to create multiple cross-border faster payment systems.

NEED NOT APPLY
We have explicitly excluded several long-established payment mechanisms that would normally be thought of as fast, including any card-based transaction, niche real-time global settlement (RTGS) systems and any payment system that includes paper origination. The advent of alternative currencies and mechanisms such as Bitcoin, Ripple and Litecoin have significant impact on the banking market, but we have excluded cryptocurrencies from this research. Faster payments may be credit transfers or direct debits, so long as the confirmation messages and the funds are available quickly. While a digital origination is critical, batch payments are also included.

BEYOND JUST RETAIL
Originally, faster payment systems were primarily focused on the retail market (P2P and P2B), but increasingly, business payments (B2P and B2B) are taking advantage of them. Additionally, use cases for payments to and from government services (P2G, G2P, B2G and G2B) continue to widen and have become increasingly common.

OTHER FACTORS OF INTEREST
The requirement for a faster payment scheme to operate 24/7 throughout the year is not mandatory. The report acknowledges some schemes accept payments 24/7 that have a delayed availability of funds outside normal working hours/days.
The Faster Payments Innovation Index (FPII) was first established in 2014 to create a comparative rating system where diverse payment schemes around the globe could be compared and contrasted. While inclusion in the FPII demanded only some basic requirements (electronic payments between accounts available quickly), a higher FPII score requires more demanding criteria, and ideally, opens the road to innovation, open banking and API-driven services on top of a faster payment service. Consequently, the FPII measures not only the speed with which transferred funds become available, but how the scheme in question is applied in its local market.

Since the first edition of Flavors of Fast, new market initiatives have gained ground, often as a direct result of the availability of an underlying faster payment service. We have therefore re-evaluated our criteria. In addition to standard credit transfers (push payments), we have included the ability to pull payments: either real-time direct debit or a Request to Pay. Both services add value to the overall offering, and the provision of either increases a country’s FPII rating.

We have also added a new element to the FPII that indicates whether the domestic schemes under review have made use of faster payments to champion overlay services, possibly through QR code usage or open access through an API layer. It should be noted that the open API element may be part of the overall instant payment scheme itself, or it could originate from a separate source.
FLAVORS OF FAST

FPFI score + = API by Country

Faster Payments Defined and Compared
LIVE COUNTRIES

AUSTRALIA

Name: NPP
Year live: 2018
FPII score + = API: 4+
Average daily volumes/value:
Avg. volume = 440,000
Avg. value = 403 M
Speed of posting to accounts: Near real time
Maximum value: No limit
Individual and/or batch payments: Individual
Operating hours: 24/7
Open Access API interface: Yes
Payment applications and overlay services:
Commentary growth, additions, changes, etc.:
NPP is live with most larger domestic retail banks, as well as a number of banking service aggregators and small financial services organizations offering instant payment opportunities to their customers.

BAHRAIN

Name: Fawri+
Year live: 2015
FPII score + = API: 3
Average daily volumes/value:
Avg. volume = 2,629 (2018)
Avg. value = BD 478,721 (2018)
Speed of posting to accounts: Within 30 seconds
Maximum value: BHD 1,000 per day and per transaction
Individual and/or batch payments: Batch
Operating hours: 24/7
Open Access API interface: No
Payment applications and overlay services:
P2P, P2B and G2P through internet banking, mobile banking and branch channels
Commentary growth, additions, changes, etc.:
Fawri+ has seen a seven-fold increase in volume and a tripling of value.

BRAZIL

Name: SITAF
Year live: 2002
FPII score + = API: 2
Average daily volumes/value:
Avg. volume: 2.7 M
Avg. value: R$ 21.8 B
Speed of posting to accounts: Less than 1 minute
Maximum value: BRL 1 M
Individual and/or batch payments: Individual
Speed of settlement: Every five minutes
Operating hours: 07:30 – 17:30 on business days
Open Access API interface: No
Payment applications and overlay services:
Commentary growth, additions, changes, etc.:
SITRAF is currently only available during bank hours, but a 24/7 service is under development (available to non-banks and fintechs), with the BCB set to introduce open banking to increase competition in financial services.
LIVE COUNTRIES

**BULGARIA**
Name: SCT Inst for local currency
Year live: 2019
FPII score + = API: 4
Average daily volumes/value: Unknown
Speed of posting to accounts: Less than 10 seconds
Maximum value: 15,000 euros
Individual and/or batch payments: Individual payments
Speed of settlement: Multiple settlement blocks through the day
Operating hours: 24/7
Open Access API interface: No
Payment applications and overlay services: P2P payments (account to account transfers)
Commentary growth, additions, changes, etc.: Bulgaria recently launched an immediate payment service based on the SCT Inst rulebook supporting local currency (the lev).

**CHILE**
Name: Transferencias en Línea (TEF)
Year live: 2008
FPII score + = API: 3
Average daily volumes/value: Avg. volume = 1 M (2018), Avg. value = unknown
Speed of posting to accounts: 10 seconds (Receiving bank must respond within 10 seconds)
Individual and/or batch payments: USD 10,000 approx.
Speed of settlement: Individual and batch payment (credit transfers are cleared for next-day value, direct debits)
Operating hours: Twice per day through RTGS
Open Access API interface: No
Payment applications and overlay services: P2P, some banks may provide bill payment, direct debits, internal corporate transfers (sweeps).
Commentary growth, additions, changes, etc.: TEF payment service is built on an older RTGS service and is based on an ISO 8583 format (no plans for ISO 20022 migration).

**CHINA**
Name: IBPS
Year live: 2010
FPII score + = API: 4
Average daily volumes/value: Avg. volume = 334 M (2018), Avg. value = 244 B CNY (2018)
Speed of posting to accounts: Real time
Maximum value: RMB 50,000
Individual and/or batch payments: Individual payments
Speed of settlement: Real-time bilateral netting of transactions within the net debit cap.
Operating hours: 24/7
Open Access API interface: No
Payment applications and overlay services: P2P, some banks may provide bill payment, direct debits, internal corporate transfers (sweeps).
Commentary growth, additions, changes, etc.: Continued strong 50 percent growth in volume and value, but dominated by social media apps (Alipay and WeChatpay about 90 percent of the market combined). QR code-based payments are growing along with financial services like wealth management.
## LIVE COUNTRIES

### CROATIA
- **Name:** SCT Inst for local currency
- **Year live:** 2019
- **FPII score + = API:** 4
- **Average daily volumes/value:** Unknown
- **Speed of posting to accounts:** Less than two seconds
- **Maximum value:** Unknown
- **Individual and/or batch payments:** Individual payments
- **Speed of settlement:** Multiple settlement blocks through the day
- **Operating hours:** 24/7
- **Open Access API interface:** No
- **Payment applications and overlay services:** P2P payments in euro and Croatian kuna
- **Commentary growth, additions, changes, etc.:** Croatia recently launched an immediate payment service based on the SCT Inst rulebook supporting local currency (the kuna).

### CZECH REPUBLIC
- **Name:** RTPE
- **Year live:** 2018
- **FPII score + = API:** 3
- **Average daily volumes/value:** Unknown
- **Speed of posting to accounts:** Real time (Within 10 seconds)
- **Maximum value:** CZK 400,000 (USD 17,805.28)
- **Individual and/or batch payments:** Individual & batch payments
- **Speed of settlement:** Unknown
- **Operating hours:** 24/7
- **Open Access API interface:** No
- **Payment applications and overlay services:** P2P, B2B, P2B
- **Commentary growth, additions, changes, etc.:** While based on the SCT Inst rulebook and using ISO 20022 formats, the Czech immediate payment service also supports Czech crowns and Hungarian florins.

### DENMARK
- **Name:** Straksclearingen
- **Year live:** 2014
- **FPII score + = API:** 4+
- **Average daily volumes/value:** Avg volume = unknown, Avg. value = 0.9 B DKK (2017)
- **Speed of posting to accounts:** Real time
- **Maximum value:** DKK 500,000
- **Individual and/or batch payments:** Individual
- **Speed of settlement:** 6 cycles per day
- **Operating hours:** 24/7
- **Open Access API interface:** Yes
- **Payment applications and overlay services:** Credit transfers, P2P, Mobile, Online
- **Commentary growth, additions, changes, etc.:** The Danish payment service is not part of the SCT Inst service but Denmark will be joining its Scandinavian neighbors on the P27 service in 2021 (multi-currency with Swedish krona, Danish krone, Norwegian krone and euros).
LIVE COUNTRIES

EUROPE SEPA - 20 COUNTRIES

Euro SCT 20 countries: Austria, Belgium, Cyprus, Estonia, Finland, France, Germany, Greece, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Monaco, the Netherlands, Portugal, Slovakia, Slovenia, Spain

Excludes non-euro countries: Bulgaria, Croatia, Czech Republic, Hungary, Poland, Romania, Sweden AND excludes opt-out countries: Denmark and United Kingdom

Name: SCT Inst
Year live: 2017
FPII score + = API: 4
Average daily volumes/value:
Avg. volume = 106.35 M (2018)
Avg. value = unknown
Speed of posting to accounts:
Target 10 seconds (countries free to change)
Maximum value: 15,000 euros (countries free to change), but rising to 100,000 euro in July 2020
Individual and/or batch payments:
Individual and batch payments
Speed of settlement:
Multiple settlement blocks through the day
Operating hours: 24/7

Payment applications and overlay services:
P2P, P2B, B2P, B2B payments through mobile and internet including pull-payments and POS payments capability, including use of aliases in place of bank account numbers (in some markets).

Commentary growth, additions, changes, etc.:
Each country and bank chooses if and when they participate, but currently, 51% of European PSPs from 20 countries are live. Multiple clearing and settlement options for increased flexibility and competition including RT1, STET, TIPS (Target2) and Equens.

Open Access API interface: No

GHANA

Name: GIP
Year live: 2016
FPII score + = API: 2
Average daily volumes/value:
Avg. volume = 394
Avg. value = 1.46 GH¢ M (2018)
Speed of posting to accounts: Real time
Maximum value: Unknown
Individual and/or batch payments: Unknown
Speed of settlement: Unknown
Operating hours: 24/7
Open Access API interface: No
Payment applications and overlay services:
Internet banking, mobile banking and branch transfers, and e-bills
Commentary growth, additions, changes, etc.:
GIP continues its strong growth, almost quadrupling volume with a six-fold increase in value with next focus on digitization of the payment of fees and fines to government and public utilities.
**LIVE COUNTRIES**

**HONG KONG**
- **Name:** FPS
- **Year live:** 2018
- **FPII score + = API:** 4
- **Average daily volumes/value:**
  - Avg. volume = 86342 (in HKD), 1081 (in RMB)
  - Avg. value = 1.86 B (in HKD) and 42.6 M (in RMB)
- **Speed of posting to accounts:** Real time
- **Maximum value:** HK$1 M for registered accounts
- **Individual and/or batch payments:** Individual & batch payments
- **Speed of settlement:** Pre-funding allows immediate settlement between banks
- **Operating hours:** 24/7
- **Open Access API interface:** Unknown
- **Payment applications and overlay services:** P2P, P2B, and B2B for mobile and internet. QR code based payments for pull-payments.
- **Commentary growth, additions, changes, etc.:**
  - Launched last year, the dual-currency service (HKD and RMB) featured QR code-based payments from the outset (common to the region).

**ICELAND**
- **Name:** Greidsluveitan
- **Year live:** 2001
- **FPII score + = API:** 2
- **Average daily volumes/value:**
  - Avg. volume = 1,000,000 (2018), Avg. value = NA
- **Speed of posting to accounts:** Real time (1 second on Avg.)
- **Maximum value:** Maximum per day: EUR 1,700.00
- **Individual and/or batch payments:** Individual & batch payments
- **Speed of settlement:** Real time of both single instructions and batches
- **Operating hours:** 09:00 to 16:15 on business days (24/7 in 2020 upgrade)
- **Open Access API interface:** No
- **Payment applications and overlay services:** B2B, P2P, and B2C
- **Commentary growth, additions, changes, etc.:**
  - Iceland is currently upgrading from a legacy service to service based on ISO 20022 formats and is expected to join its Scandinavian neighbors on the P27 service in 2021 (multi-currency with krona and euro).

**INDIA**
- **Name:** IMPS
- **Year live:** 2011
- **FPII score + = API:** 5+
- **Average daily volumes/value:**
  - Avg. volume = 1947 M, Avg value = 6760 B INR
- **Speed of posting to accounts:** Real time
- **Maximum value:** 200,000 INR - IMPS, 100,000 INR - UPI
- **Individual and/or batch payments:** Individual payment
- **Speed of settlement:** 4 cycles per day
- **Operating hours:** 24/7
- **Open Access API interface:** Yes
- **Payment applications and overlay services:** P2P, P2B, B2B and G2B through mobile and internet with account aliases, request to pay, e-commerce gateways, social media app payments and QR codes payment initiation.
- **Commentary growth, additions, changes, etc.:**
  - A massive ten-fold increase in volume and tripled transaction value due to de-monetization for cashless payments with government support and UPI encouraging open API innovation.
**JAPAN**

Name: Zengin

Year live: 1973

FPII score + = API: 3

Average daily volumes/value:
Avg. volume = 4.05 M, Avg. value = 8.09 T Yen

Speed of posting to accounts: Real time

Maximum value: 100 M Yen

Individual and/or batch payments: Individual & batch payments (batch usually future dated)

Speed of settlement: EOD: One interbank settlement daily at 16:15

Operating hours: 24/7

Open Access API interface: No

Payment applications and overlay services:

Commentary growth, additions, changes, etc.:
Forty-six years in operation (originally an RTGS service), Zengin now offers 24/7 operations and ISO 20022 messaging, but growth remains low.

**KENYA**

Name: PesaLink

Year live: 2017

FPII score + = API: 4

Average daily volumes/value:
Avg. volume = unknown, Avg. value = unknown

Speed of posting to accounts: Real time

Maximum value: 1 M KES

Individual and/or batch payments: Unknown

Speed of settlement: Daily

Operating hours: 24/7

Open Access API interface: No

Payment applications and overlay services:
P2P through Mobile banking, P2G, (USSD & Application), internet banking, ATM, Branch front office, agency banking

Commentary growth, additions, changes, etc.:
PesaLink allows consumers to send money using aliases through mobile and internet, including government department payments for administrative costs with retail payments phased in soon.

**MALAYSIA**

Name: RPP

Year live: 2018

FPII score + = API: 4

Average daily volumes/value: Unknown

Speed of posting to accounts: Real time

Maximum value: RM100,000 for consumers and RM100,000,000 for businesses (banks may set their own limits)

Individual and/or batch payments: Individual

Speed of settlement: 2 hours or overnight

Operating hours: 24/7

Open Access API interface: No

Payment applications and overlay services:

Commentary growth, additions, changes, etc.:
RPP (ISO 20022 based) is now focused on the progressive introduction of new payments services, including QR code payments, as well as pull payments, e-mandates and real-time debits.
**LIVE COUNTRIES**

**MEXICO**

Name: SPEI  
Year live: 2004  
FPII score + = API: 2  
Average daily volumes/value: Avg. volume = 1.8 M transactions, Avg. value = 708.5 B of Pesos  
Speed of posting to accounts: Within 10 seconds  
Maximum value: Unknown  
Individual and/or batch payments: Individual payments  
Speed of settlement: Hybrid, clears and settles within 20 seconds  
Operating hours: 24/7  
Open Access API interface: No  
Commentary growth, additions, changes, etc.: Developed from an established RTGS service, SPEI has grown slowly in a very cash-heavy market, but now supports account alias services using a mobile or debit card number and a pull payments capability.

**NIGERIA**

Name: NIBSS Instant Payment (NIP)  
Year live: 2011  
FPII score + = API: 2  
Average daily volumes/value: Avg. volume = 2.3 M Avg. value = 237.8 B NGN  
Speed of posting to accounts: Real time  
Maximum value: Consumers: 1 M NGN (daily limit of NGN 5 M), Corporate: NGN 10 M  
Individual and/or batch payments: Individual payments  
Speed of settlement: Deferred net settlement/ One settlement cycle per day  
Operating hours: 08:00 to 17:00  
Open Access API interface: No  
Payment applications and overlay services: P2P, P2B, B2B, Internet banking / Mobile / ATM / POS / Branch  
Commentary growth, additions, changes, etc.: Growth remains strong with a volume more than doubling and value up 50 percent from 2018. NIBSS introduced mCASH to allow users to make USD payment to merchants using mobile phone.

**NORWAY**

Name: Straksbetalinger  
Year live: 2019  
FPII score + = API: 4  
Average daily volumes/value: Unknown  
Speed of posting to accounts: Real time  
Maximum value: NOK 500,000  
Individual and/or batch payments: Unknown  
Speed of settlement: Unknown  
Operating hours: 24/7  
Open Access API interface: No  
Payment applications and overlay services: P2P payments (Account to account transfers)  
Commentary growth, additions, changes, etc.: Current service to be replaced this year with an ISO 20022 service based on the SCT Inst rulebook and is likely to join its Scandinavian neighbors on the P27 service in 2021 (multi-currency with Swedish krona, Danish krone, Norwegian krone and euros).
# Live Countries

## Philippines
- **Name:** Instapay
- **Year live:** 2018
- **FPII score + = API:** 3
- **Average daily volumes/value:** Avg. volume = 44.05 Avg. value = 201 M Philippine pesos
- **Speed of posting to accounts:** Real time (almost immediate)
- **Maximum value:** Up to PHP50,000 per transaction, with no daily limit.
- **Individual and/or batch payments:** Individual and batch
- **Speed of settlement:** Prefunding of settlement of bank net clearing obligations. Settlement via the BSP’s RTGS system.
- **Operating hours:** 24/7
- **Open Access API interface:** Unknown
- **Commentary growth, additions, changes, etc.:** Launched last year, InstaPay (ISO 20022-based), is looking to expand into additional services and app-based payments.

## Poland
- **Name:** Express ELIXIR
- **Year live:** 2012
- **FPII score + = API:** 4+
- **Average daily volumes/value:** Avg. volume = 44.9 Thousand Avg. value = PLN 93.4 M
- **Speed of posting to accounts:** 3 seconds
- **Maximum value:** PLN 100,000 for standard transactions. PLN 250,000 for tax and social insurance payments.
- **Individual and/or batch payments:** Individual payments (but future goals include batch payments)
- **Speed of settlement:** Immediate settlement
- **Operating hours:** 7/24/2019
- **Open Access API interface:** Yes
- **Commentary growth, additions, changes, etc.:** Express Elixir has provided the basis for a new national payments service called Blik (2015) that supports personal and retail payments on mobile, in-store and online for retail, business and government sectors.

## Republic of Korea
- **Name:** HOFINET
- **Year live:** 2011
- **FPII score + = API:** 2
- **Average daily volumes/value:** Avg. volume = 11 M Avg. value = 42 T KRW (2016)
- **Speed of posting to accounts:** Real time
- **Maximum value:** KRW 1 B (corporate) KRW 100 M (retail)
- **Individual and/or batch payments:** Individual payments
- **Speed of settlement:** One cycle on the next business day at 11:00 am
- **Operating hours:** 24/7
- **Open Access API interface:** No
- **Payment applications and overlay services:** P2P, P2B, B2B, B2P All credit payments, mobile or online
- **Commentary growth, additions, changes, etc.:** HOFINET remains on XML-based messaging; ISO standard is in a planning phase, resulting in a lack of market innovation and slow growth.
## LIVE COUNTRIES

### ROMANIA
- **Name:** Plăți Instant
- **Year live:** 2018
- **FPII score + = API:** 4+
- **Average daily volumes/value:** Unknown
- **Speed of posting to accounts:** Real time (less than 10 seconds)
- **Maximum value:** RON 50,000
- **Individual and/or batch payments:** Individual
- **Speed of settlement:** Final settlement is done through ReGIS (NBR’s RTGS)
- **Operating hours:** 24/7
- **Open Access API interface:** Yes
- **Payment applications and overlay services:** Instant Payments service via BT24 Internet Banking and Mobile Banking. BT Pay application. (B2B, P2P, B2C).
- **Commentary growth, additions, changes, etc.:** Plăți Instant offers account services using aliases, personal payments, e-commerce payments, business-related payments and other remuneration services (based on ISO 20022).

### SAUDI ARABIA
- **Name:** Unknown
- **Year live:** 2019
- **FPII score + = API:** 3
- **Average daily volumes/value:** Unknown
- **Speed of posting to accounts:** Real time
- **Maximum value:** Unknown
- **Individual and/or batch payments:** Individual payments
- **Speed of settlement:** Unknown
- **Operating hours:** 24/7
- **Open Access API interface:** No
- **Payment applications and overlay services:** P2P, P2B and B2B
- **Commentary growth, additions, changes, etc.:** Saudi Arabia launched a real-time payments system in April 2019 for P2P payments instantly between financial institutions, businesses and consumers.

### SINGAPORE
- **Name:** FAST
- **Year live:** 2014
- **FPII score + = API:** 4+
- **Average daily volumes/value:** Avg. volume = 143,646, Avg. value = 2694 M SGD
- **Speed of posting to accounts:** Near Real time
- **Maximum value:** SGD 200,000
- **Individual and/or batch payments:** Individual payments
- **Speed of settlement:** Deferred settlement twice a day (planning increasing to multiple cycles per day)
- **Operating hours:** 24/7
- **Open Access API interface:** Yes
- **Payment applications and overlay services:** Credit transfers, direct debits, Bill payment, P2P, P2B, B2B, B2P and merchant payments. QR Code for e-payments (SG-QR) - a standardized QR code which works regardless of e-payment platforms
- **Commentary growth, additions, changes, etc.:** FAST continues to see strong growth with an almost 50 percent increase in volume and value, driven mostly by emerging, innovative open API-enabled services.
## FLAVORS OF FAST

### LIVE COUNTRIES

**SOUTH AFRICA**

**Name:** Real Time Clearing (RTC)

**Year live:** 2006

**FPII score + = API:** 3

**Average daily volumes/value:**
- Avg. volume = 52,328 (2017)
- Avg. value = 917 M ZAR (2017)

**Speed of posting to accounts:** Less than 1 minute

**Maximum value:** ZAR 5 M until 16.00 / ZAR 250,000 during non-business hours

**Individual and/or batch payments:** Individual payments

**Speed of settlement:** Deferred net settlement
- Hourly cycles between 08:00 and 16:00 and 22:30 to 23:30

**Operating hours:** 24/7

**Open Access API interface:** No

**Payment applications and overlay services:** P2P, P2B, B2B and B2P

**Commentary growth, additions, changes, etc.:**
Growth is held back since posting time is not mandated nor uniform and not all banks are using the system, but updated ISO 20022 version in development.

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**SRI LANKA**

**Name:** CEFTS

**Year live:** 2013

**FPII score + = API:** 3

**Average daily volumes/value:**
- Avg. volume = 19,818
- Avg. value = 1.8 B LKR

**Speed of posting to accounts:** Real time

**Maximum value:** LKR 5 M

**Individual and/or batch payments:** Individual payments

**Speed of settlement:** 2 session each day

**Operating hours:** 24/7

**Open Access API interface:** No

**Payment applications and overlay services:** P2P, P2B, B2B and G2P through mobile, internet, ATMs, and at POS

**Commentary growth, additions, changes, etc.:**
CEFTS is seeing many new services including JustPay for smaller retail payments and pull payments, and the new QR code service will likely drive mobile usage.

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**SWEDEN**

**Name:** BIR

**Year live:** 2012

**FPII score + = API:** 4+

**Average daily volumes/value:**
- Avg. volume = 1.4 M
- Avg. value = SEK 693.3 M

**Speed of posting to accounts:** 1-2 seconds

**Maximum value:** SEK 150,000 (banks may set own limits)

**Individual and/or batch payments:** Individual payments

**Speed of settlement:** Constant immediate settlement of individual payment transactions.

**Operating hours:** 24/7

**Open Access API interface:** Yes

**Payment applications and overlay services:** P2P, P2B and B2B for credit transfers Swish mobile in-app payments. QR code capability for instant payments for micro-businesses and e-commerce with pull-payment capability

**Commentary growth, additions, changes, etc.:**
BiR is the instant clearing and settlement system in Sweden where open API use has seen volume and value double in the last year. In 2021, Sweden will join the P27 service offering SCT Inst service.
**LIVE COUNTRIES**

**SWITZERLAND**

Name: Swiss Interbank Clearing System (SIC)

Year live: 1987

FPII score + = API: 4

Average daily volumes/value:
Avg. working day volume = 2.5 M
Avg. working day value = 152.8 B CHF

Speed of posting to accounts: Real time

Maximum value: Unknown

Individual and/or batch payments: Individual payments

Speed of settlement: Approx. 6:30 pm of the previous day until 6:15 pm on the actual day and on weekends from Friday 6:30 pm until Monday 6:15 pm

Operating hours: 24/5

Open Access API interface: No


Commentary growth, additions, changes, etc.:
Built from the long-established RTGS service, growth in SIC payments has flattened out primarily because it is a business service not offering P2P payments or any of the additional services that could leverage them.

**TAIWAN**

Name: “CBC Interbank Funds transfer System (CIFS)

Year live: 1995

FPII score + = API: 1

Average daily volumes/value: Avg. volume = 2,074
Avg. value = 1.4 T TWD

Speed of posting to accounts: Real time

Maximum value: Unknown

Individual and/or batch payments: Individual

Speed of settlement: Individually

Operating hours: 24/7

Open Access API interface: No

Payment applications and overlay services: B2B (Interbank bank funding and settlements, Settlement in financial markets)

Commentary growth, additions, changes, etc.:
Operated by the central bank, CIFS has morphed from RTGS into real-time payments for all transaction values but currently only B2B capability offered.

**THAILAND**

Name: PromptPay

Year live: 2017

FPII score + = API: 4

Average daily volumes/value:
Avg. volume = 2.9 M (Jun-2018)
Avg. value = 14.7 B THB  (Jun-2018)

Speed of posting to accounts: Less than 1 min

Maximum value: Unknown

Individual and/or batch payments: Unknown

Speed of settlement: Unknown

Operating hours: 24/7

Open Access API interface: No

Payment applications and overlay services: Facilitate e-Payment transactions among people, businesses, and governments (P2P, P2B, G2P, P2G, Credit transfers, transfers on ATM, mobile banking, internet banking)

Commentary growth, additions, changes, etc.:
With strong growth since its launch, PromptPay continues to roll out additional services for mobile or internet (no plans for ISO 20022 migration).
LIVE COUNTRIES

**TURKEY**

Name: Retail Payment System (RPS)

Year live: 2012

FPII score + = API: 2

Average daily volumes/value:
Avg. volume = 2.3 M (2018)
Avg. value = 67.8 B TRL (2018)

Speed of posting to accounts: Real time

Maximum value: Unknown

Individual and/or batch payments:
Individual payments

Speed of settlement: 30 seconds (2015) as RTGS

Operating hours: 08:30 until 17:30 Monday to Friday. Closes at 13:00 on half working days.

Open Access API interface: No

Payment applications and overlay services:
P2P, P2B, B2B, credit transfers

Commentary growth, additions, changes, etc.:
RPS continues to grow steadily with a 50 percent increase in volume and value over the last two years (no plans for ISO 20022 migration).

**UNITED KINGDOM**

Name: UK Faster Payments

Year live: 2008

FPII score + = API: 4

Average daily volumes/value:
Avg. volume = 5.914 M,
Avg. value = 4.889 B GBP

Speed of posting to accounts:
A maximum of 15 seconds

Maximum value: 250,000 £ depending on bank

Individual and/or batch payments:
Individual and batch payments with Direct Corporate Access supported by some banks

Speed of settlement: Deferred Net Settlement 3x daily

Operating hours: 24/7

Open Access API interface: No

Payment applications and overlay services:

Commentary growth, additions, changes, etc.:
U.K. growth is steady at 20 percent and the New Access Model ensures service provider and new entrant participation without significant investment. New Payments Architecture under development will be ISO 20022-based.

**UNITED STATES**

Name: RTP

Year live: 2017

FPII score + = API: 4

Average daily volumes/value:
Avg. volume = unknown
Avg. value = unknown

Speed of posting to accounts: Real time

Maximum value: $25,000

Individual and/or batch payments: Individual

Speed of settlement: Immediate/continuous

Operating hours: 24/7

Open Access API interface: No

Payment applications and overlay services:

Commentary growth, additions, changes, etc.:
Clearing House ensures all U.S. institutions can access RTP network by 2020 but other schemes competing for real-time payments include Faster Payments Council, Zelle and the Federal Reserve’s FedNow (live 2023).
**UNDER DEVELOPMENT**

**CANADA**

Region: AMER

Commentary: Canada’s new real-time payments service under development is known as Real-Time Rail (live end 2020). It will operate 24/7 and ensure near real-time delivery of low-value payments in seconds. RTR supports overlay services as a platform for payments innovation.

**HUNGARY**

Region: EMEA

Commentary: Central Bank of Hungary is introducing immediate payments in March 2020. Clearing and settlement within five seconds. Users initiate payments using email address, mobile phone number or tax identification number. Maximum value HUF 10 million as individual or batch payments.

**PERU**

Region: AMER

Commentary: The new immediate payments service is expected to be fully real time and operate 24/7. Current system clears payments in under 30 seconds, but is only operational during bank working hours. The service will cater to government, consumers, businesses and financial institutions.

**COLOMBIA**

Region: AMER

Commentary: CENIT transfers are effective same day they are sent to the bank but will focus on low-value credit transfers. Electronic credit transfers, direct debits and settlement are made in an account with clearing and settlement of payment orders occurring in five daily cycles.

**NEW ZEALAND**

Region: APAC

Commentary: New Zealand launched the open banking initiative for real-time payments in 2016 driven by the need to provide an open banking environment with scope for innovation. The real-time payments service ‘FastAs’ is still in development.
**ON THE RADAR**

**VIETNAM**

Region: APAC

Commentary:
Vietnam is targeting a 90 percent cashless economy by 2020. A new Instant Interbank Funds Transfer Service to operate 24/7 in real time across the internet, mobile banking, e-wallet application, ATM, etc. Maximum funds transfer limit to 300 million VND per transaction.
REAL-TIME PAYMENTS ACROSS THE GLOBE
With 54 national real-time payments systems already live today around the world (including 20 on Europe’s SCT Inst), and many others in the planning or development phase, real-time payments are rapidly becoming the new normal for electronic bank payments. Each country has developed its own real-time payments system, each with different characteristics to satisfy local demand, but many are looking to utilize the new payment rails to offer additional overlay services.

To compete with fintech firms and new entrants providing real-time payments services, banks are making investments across three layers: value-added services, innovative offerings built on real-time infrastructure and holistic solutions. One of the biggest takeaways is that bringing in real-time payments will most certainly make the pie bigger, creating new market demand and growing the ecosystem in both volume and value.
Focus on Europe

The euro-based SCT Inst scheme is not the only story in town within Europe. Countries outside the eurozone have developed real-time payments schemes, often pre-dating SCT Inst (i.e., U.K., Sweden and Denmark), while others within the eurozone had previously developed their own domestic service (i.e., Spain). In parallel, the Nordic countries are creating their own SCT Inst-like service called P27 that will support multiple currencies as well as the euro, scheduled for launch in 2021. Europe remains a hub for payment innovation where interoperability and interconnectivity are paramount.

EUROZONE – SCT INST

Since the launch of the SCT Inst scheme in November 2017, most banks are live and offering real-time payments to their customers. Currently, almost 2,100 payment service providers have joined the scheme (over 50 percent), offering SCT Inst immediate payments in 20 countries.

Europe remains a vibrant ecosystem and continues to be a hub for payment innovation as new use cases are developed, and PSD2 and SCT Inst come together to create a new experience for the customer. Despite SCT Inst being live since November 2017, European real-time payments remain in a state of flux and present a decentralized and inconsistent picture to banks and consumers. Banks across the continent continue to evaluate their position, the alternatives open to them and the local options being implemented.

SCT Inst aims to provide consumers and businesses with the ability to confidently make secure payments up to a maximum of 15,000 euros (rising to 100,000 euros in July 2020) in seconds, 24/7. However, local implementations can adapt these limits to meet local requirements with higher payment limits and shorter payment timelines. Looking ahead, there are moves to develop Request to Pay services. The EPC is due to complete standards for EIPP by November 2019. In parallel, EBA CLEARING has gained the support of 24 banks for a new Request to Pay service, which it intends to deliver by the end of 2020.
Currently, there are several clearing and settlement mechanisms available for banks wishing to offer SCT Inst to customers, including EBA CLEARING (RT1), the Systèmes Technologiques d’Echange et de Traitement (STET), Equens and TARGET2 Real-time Payment System (TIPS) from the European Central Bank and the member state national banks (together referred to as the Eurosystem). The clearing and settlement mechanism market is highly competitive and as a result, should continue to inspire innovation over the coming years. The early launches are based on the EBA CLEARING service through RT1, except for France and Belgium who are live with the STET service.

While much of the region is actively participating, the lower volumes reflect the fact that SCT Inst is still in its early stages. However, once the scheme becomes fully fledged, such a large and digitally literate region will inevitably see high volumes over the next year, especially as new services are layered on the real-time payments rails.

**UNITED KINGDOM – FASTER PAYMENTS**

We are now 11 years into the Faster Payments service network in the U.K.; in 2018, Faster Payments processed over two billion transactions with a total value of £1.7 trillion. The U.K. market is now seeing PSPs develop many innovative products for the benefit of both merchants and consumers that are dependent on U.K. Faster Payments to function. This trend will continue with the rolling out of open payments over the next decade. As the payments landscape develops in the new post PSD2/Open Banking world, the number of services offered by third-party providers will multiply, competition will increase and services will advance for the benefit of consumers.

Trust in new non-bank PSPs will have to be established before there is mass adoption of more of these types of third-party provider services in the market. However, consumer appetite for new services is strong, and when coupled with acknowledgements from the regulator and providers that security is paramount, take-up of new non-bank transaction facilities will not be a slow process.
In the future, two new services are scheduled to be added that will give more control and flexibility to users and could save billers an estimated £1.3 billion per year. Confirmation of Payee gives greater assurance that users are sending their payments to the intended recipient; the U.K. Payment Systems Regulator has issued a specific direction to make sure that the U.K.’s six largest banking groups, covering around 90 percent of bank transfers, fully implement Confirmation of Payee by March 31, 2020. Request to Pay enables individuals, merchants or businesses to request payment. The payer response can be to pay in full, in part, decline, or ask for more time giving them greater control.

The introduction of the U.K.’s New Payments Architecture (NPA), now forecast to be implemented after 2021, will deliver the next big round of innovation in the payments market. The NPA is a new conceptual model for the future development of the U.K.’s shared retail payment infrastructure that will encourage competitive innovation and unlock new business opportunities, smarter uses of banking and payment data, and new transactional services. Consumers and businesses can expect more information to be made available alongside details of transactions to help them better understand what a payment relates to and to reconcile more easily. The adoption of common, international messaging standard ISO 20022 simplifies access, innovation and interoperability.

The backbone of the NPA (not fully live until 2025) will be a new core clearing and settlement layer which will process more than £6.7 trillion worth of Bacs, Faster Payments and potentially check payments every year after implementation in 2021. The NPA will create a new framework that will allow new overlay services to be easily developed, leading to greater competition and innovation, with new and better payments products and services.

**NEW PAYMENT ARCHITECTURE**

A new conceptual model for the future development of the U.K.’s payment infrastructure

- Encourage competitive innovation
- Unlock new business opportunities
- Make smarter use of banking and payment data
- Offer new transactional services

**GERMANY – SCT INST**

Although the eurozone countries are unified on the use of SCT Inst for real-time payments, banks in each country are free to follow their own agenda. While Germany is the biggest market, it is not leading the adoption path, and ubiquity is not expected until 2020. First, the German payments landscape is one of Europe’s most complex. While there are two global players in Deutsche Bank and Commerzbank, the domestic market remains fragmented. Smaller cooperative and savings banks collectively have about
70 percent of deposits and are migrating to SCT Inst at different schedules. Where real-time services are available, the current level of fees being applied to SCT Inst transactions position it as a premium service, slowing adoption. Despite these challenges, real-time payments offer the first serious possibility of moving cash-loving Germans onto digital payment methods as they are free from the negative cultural association of credit cards; they could represent a game-changer. Deutsche Bank certainly thinks so and is piloting real-time payments with IATA to offer an alternative to cards for airline payments, starting in Germany.

It will take a few years before real-time payments enjoy the success seen in other markets such as Denmark, Sweden or the U.K., which moved unilaterally before the advent of SCT Inst. In Germany, many of the smaller banks have opted to use payments as a service via a technical service provider to deliver real-time payments. This has been driven by factors such as time to market, costs and lack of internal capabilities.

Given time, real-time payments in Germany are expected to make up 37 percent of all retail payment transactions by 2027. As a result, a significant volume of payments will move away from cards and SEPA batch to real-time SCT Inst payments. Germany can look toward APAC countries which have seen much faster adoption rates. By going beyond compliance and the need to offer a real-time payments channel, German financial institutions can embrace the possibilities of open banking and become an early adopter of open API banking services. They must open up to the benefits, and challenges, that partnering with third parties can offer, and begin offering German consumers and businesses payments services that reduce friction and add real value beyond just another payment rail.

“In Germany, real-time payments could be the game-changer for digital payments.”

Innovation is key to banks tackling the challenges from the new market disruptors. To do this, banks have the opportunity to choose a solution that supports rapid development and integration via agile development processes, is flexible enough to meet changing business requirements and has an open, future-proof technology stack.
**NORDIC REGION – P27**

The Nordic region has been no stranger to payments innovation, so it is no surprise to see the emergence of a pan-Nordic payments initiative, P27, designed to offer ubiquitous payments to the region’s 27 million residents. P27 will deliver the world’s first real-time multicurrency infrastructure, offering cross-border payments and streamlined domestic central infrastructure that processes euro, Norwegian krone, Danish krone and Swedish krona.

P27 embraces collaboration. Six major Nordic banks came together to build a strong business case to establish a new CSM to clear all Nordic currencies. The scope of the program is closely aligned to SEPA Payments (including SCT Inst), but settlement goes through existing domestic settlement mechanisms.

The business case for P27 is highly strategic as it aims to simplify trade and reduce payment friction. This will ensure the Nordic region remains an attractive region for business and can collaborate easily with the rest of Europe. P27 is a shrewd investment that will ensure the region has a future-proof real-time payments infrastructure that can accommodate emerging requirements. These include: ISO 20022 for high-value payments, open APIs to enhance payment services and the ability to adopt a holistic view across payment types.
Focus on the Americas

North America has been relatively slow to embrace immediate payment mechanisms, with the U.S. only launching in 2017 and Canada still under development (targeting live 2020). Central and South America, in contrast, have some long-established real-time schemes dating back to 2002 (Brazil), 2004 (Mexico) and 2008 (Chile).

These legacy services have seen steady growth over the last year, with Mexico and Brazil growing volumes by around 40 percent growth; but Chile remained relatively stagnant. The U.S. hopes to emulate this trend as real-time payments service becomes fully fledged and more ubiquitous.

UNITED STATES – RTP, FPC, FEDNOW AND ZELLE

In July 2017, the Federal Reserve System’s Faster Payments Task Force (of which FIS was a member) released its official plans and call to action to payments stakeholders to evolve the U.S. payments system into one “that is faster, ubiquitous, broadly inclusive, safe, highly secure and efficient by 2020.” The Clearing House launched its real-time payments system, RTP®, in November 2017, which is open to all U.S. financial institutions. RTP is built to support digital commerce and is intended to become a platform for innovation. In addition to clearing and settling payments in seconds, RTP includes features like payment confirmation and the Request for Payment messaging that enable pull payments to deliver bills and invoices through digital channels, which provide insight into the life cycle of the payment.

The Clearing House is looking at many use cases where a real-time payments mechanism would add significant value to all parties. These range from simple P2P transfers to business supply chain payments for just-in-time inventory and trade settlement. Other possibilities include real-time payments for cash-on-delivery services for wholesaler/retailer relations, payments on behalf of institutional clients for brokerage commissions, investment management fees, improved corporate liquidity management and the replacement of check payments for corporate and business clients. The use of ISO 20022 formats would deliver standard purchase order data together with the payment to simplify the reconciliation processes.

U.S. REAL-TIME PAYMENTS GROWTH

Predictions for daily transaction volume (all services):

- 2019 – $3B
- 2020 – $4.6B
- 2021 – $6.4B

Source: Mercator advisory group faster payments forecast
From the Task Force’s plans, the Faster Payments Council (FPC) is developing and implementing a faster payments governance framework, inclusive of all stakeholders, that facilitates ubiquity of faster payments in the U.S.– its Open Vision for the U.S.

In parallel, the real-time payments service Zelle (rebranding of clearXchange) offers P2P payments backed by a network of U.S. banks and managed by private financial service Early Warning Services (originally formed to combat fraud in the financial industry). Zelle is a complementary service but does not offer bank-to-bank settlement in real time.

The Federal Reserve Board is working on a service provisionally called FedNow that will enable all U.S. banks to offer real-time payments 24/7. The system is expected to be operational by 2023 or 2024 and will initially support transfers of up to $25,000. While welcomed by smaller community banks and credit unions, larger banks are less enthusiastic as it represents direct competition for The Clearing House’s RTP service. Fintechs wanting to break into banking also look set to benefit from FedNow, allowing them to bypass RTP for what could well become a cheaper service.

It is likely that the U.S. payments landscape will change and evolve over the coming years as significant players join forces to ensure safety and security of the wider financial ecosystem.
Focus on Asia-Pacific

Over the last few years, the APAC region – home to over 4.2 billion people, or 61 percent of the world population – has led the globe with a surge of real-time payments schemes. Currently, APAC holds a clear majority of the digital retail market at approaching two-thirds of the total global spend as Asia remains at the epicenter of real-time payments innovation. Consequently, APAC is rich with opportunities to develop innovative solutions in the payments space that facilitate P2P, B2B, B2C and C2B transfers, within countries and across borders, supported by API technology. APAC has been the first region to truly embrace utilizing APIs and real-time payments rails to not only enhance a company’s cash flow position but also tangibly transform its service model by providing greater convenience to customers.

Another cornerstone in the innovation space in APAC is the continued growth in payment initiation via QR codes. First developed in Japan in 1994, QR codes have since been extensively adopted for frictionless payment initiation in mainland China, India, Singapore and Hong Kong. Many countries are moving to standardize QR code usage (Hong Kong and Singapore in 2018), as a common QR standard encourages interoperability across different payment service providers and helps reduce friction for both consumers and merchants. For smaller businesses, collections can take place via payment to a static QR code. For larger enterprises, the QR code may be integrated into their point-of-sale machines, invoices or online payments.

It is worth highlighting New Zealand. While not yet live with a real-time payments service, New Zealand is starting the process by focusing on the open banking API model to strategically enable its digital economy, rather than simply providing real-time payments rails. The proposed service will be live in 2020-2021, and real-time payments may not even be needed in order to offer the value-added services that open banking will provide. APIs will allow organizations, with customer consent, to interface with financial institutions and securely access customer data to enable delivery of a range of service offerings, including payment initiation. The open banking scheme is based on the U.K.’s Open Banking Implementation Entity standards (ISO 20022) but localized to domestic market practices.
SINGAPORE – FAST
Singapore launched its FAST system in 2014 and sees continued strong growth with a 50 percent growth in both volume and value transacted since last year. This has been bolstered by the launch of the PayNow corporate service in August 2018, which allows transfers using a mobile number, national identification number and even a company registration number, as a proxy address for the recipient. The proxy address and the 24/7 capabilities of PayNow corporate service enable businesses to migrate from traditional checks and cash to electronic payments and collections, reducing both costs and risks.

As elsewhere in the region, the ease of QR code usage is also driving the demand as evidenced by the government launching its own QR code standard, SGQR, in August 2018. The use of APIs is growing, with many banks issuing their own interfaces and publishing for both retail and commercial solutions. The Singapore monetary authority published an API cookbook that covers all sector (payments, insurance, banking, etc.), however, much of the initial focus is primarily on retail.

The Monetary Authority of Singapore (MAS) recently announced plans to open FAST to non-bank players in 2019, helping Singapore reach its goal of being check-free by 2025.
HONG KONG – FPS
Faster Payment System (FPS) was launched in September 2018 and has seen very high adoption rates across the territory. Transfers may be made across many banks and stored-value facility providers in seconds. They can also be made using QR codes, email addresses, mobile numbers and ID code aliases. Users can transfer money easily in both Hong Kong dollars and renminbi, with funds available almost immediately. To further cement the adoption rates, Hong Kong unveiled its Common QR Code Standard for Retail Payments in 2018 to simplify application development.

The Hong Kong Monetary Authority has been bringing in open APIs this year, with many banks planning go-live dates before the end of the year. The open banking capability will be phased with product information (deposit rates, credit card offerings, service charges and other public information) coming first. Customer acquisition (new applications for credit cards, loans and other products) will be phased in later this year. Account information (account balance, credit card outstanding balance, transaction records, credit limit change and others) is set for 2020 with full transactional capability soon after.

API PHASES IN HONG KONG
1. Product information
2. Customer acquisition
3. Account information
4. Transactional capability
AUSTRALIA – NPP

Australia launched its NPP faster payments system in February 2018, in a collaboration between the Reserve Bank of Australia and the nation’s biggest four banks (95 percent of the market). The system enables real-time payments between bank customers and other financial service providers. NPP also offers a PayID service that allows customers to link their financial accounts to personal information, such as mobile phone numbers and email addresses, where users then provide their PayID to businesses or individuals to receive payments.

With the real-time rails in place, all banks are connected, and the numbers are growing, albeit at a slower rate than some of the more optimistic projections. Smaller banks have been particularly successful with their use of aggregator services. Many banks are planning to move much of their ACH traffic to NPP, but migration has been slow.

The next major phase is to leverage NPP to facilitate open banking. Open access to accounts under the Consumer Data Right is expected in the first half of 2020, providing full access to account information, but transactional capabilities through APIs remain under discussion as the business cases are developed and explored. Legislation may be required to move faster, but many banks are planning sandboxes in 2020.
INDIA – IMPS

India continues to lead the way with a massive 10-fold increase in value and an eight-fold increase in transaction volumes on its IMPS service. Despite that more than half of India’s population remains offline, its real-time scheme now processes nearly 20 million faster payments transactions each day.

Despite the impressive growth, infrastructure remains an issue in India where 250 million people still do not have phones, and despite there being over 60 million merchants, there are under four million POS devices. Real-time digital payments can bridge some of these gaps, especially for smaller businesses, some of which have transformed themselves with real-time payments capability. Like many other countries in Asia, the resurgence of the QR code as a payment origination mechanism, especially for street-sellers and taxi services, has created massive demand for the faster payment services and driven large volumes of traffic.

In addition to the ubiquity of smartphones driving usage, the growth in services based on Unified Payment Interface (UPI) has led to the creation of a wealth of new innovative payment solutions. The adoption rates of real-time payments in India reflect this continuing evolution, with the use of app-based originated payments adversely impacting traditional debit and credit card usage volumes. With money transfer apps like Google Pay and Paytm having added chatting features and chatting apps like WhatsApp and Hike messaging enabling money transfers, immediate payments are now built into the social fabric.

Launched almost a decade ago, IMPS is the core of one of the most evolved and sophisticated public digital payments infrastructures in the world. Funds can be accessed via mobile devices, online, at ATMs, through text messages and at physical bank branches. Indian demonetization was a huge boost for cashless payments, while the support for mobile numbers to be used for real-time payments added convenience and largely drove the volume. There are currently no plans to upgrade to ISO 20022 messaging formats.

INDIA SEES 10-FOLD INCREASE

India’s UPI-based services have led to the creation of a wealth of new innovative payment solutions.
We hope you’ve enjoyed reading our 2019 report on the state of global payments. To learn more about how FIS can help your business keep pace with faster payments, contact us at getinfo@fisglobal.com.