

# The Platform for Innovation

How institutions across Asia are using real-time payments to define the future of the financial industry

A report from Kapronasia in collaboration with FIS



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## Methodology

The Platform for Innovation whitepaper from Kapronasia produced in collaboration with FIS is based on both primary and secondary research. Secondary research sources include both internal and external public and private databases. Primary research includes interviews with bankers, financial institutions, technology providers and industry experts involved in the payments industry.

# Introduction

Since the launch of real-time payments in Japan in 1973, the financial industry has been on a path of rapid modernization as governments and financial sectors around the world move to instant payment systems. In many ways, real-time payments are a natural evolution of the industry, providing better, faster and cheaper payments domestically, and increasingly, cross-border.

They have also become the new normal in many geographies across Asia. On average, 60% of Asia's banks provide real-time payment products in regions where real-time payments are available. Banks are using instant payments to not only create new payment products, but also to develop a better understanding of their customers and build additional financial products and services on top of those platforms.

It is this strategic capability that will drive a significant amount of future industry revenue and profitability. The need to provide real-time payments often forces the hand of banks to upgrade their existing legacy infrastructure. However, rather than a challenge, the arrival of real-time payments should be viewed as an opportunity by forward-looking banks to better understand and cater to the needs of their customers.

In this *Platform for Innovation* whitepaper from Kapronasia, produced in collaboration with FIS, we take a look at how banks and institutions across Asia are leveraging real-time payments to drive innovation. We start off by reviewing where real-time payments are in Asia today. We then identify some of the critical benefits of real-time payments and provide example case-studies of how financial institutions across Asia are using real-time payments in their own business. Finally, we look at some of the essential best practices and considerations for banks that are looking to do more with their real-time payments implementations.

We hope you find this report as interesting to read as it was for us to research.



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# Key Findings

81% of Asia's population will have access to real-time payments by the end of 2018 as the region's financial industry continues to modernize its payments infrastructure.

Real-time payments are increasingly a 'business-as-usual' requirement for many banks. In Asian markets where real-time payments are available, on average, 60% of full-service banks provide real-time payment services.

Consumer demand for real-time digital payments is increasing rapidly, driven by P2P payments and e-commerce. In China alone, consumers tapped their way to more than 32 trillion dollars in mobile payments in 2017.

Although real-time payments can increase a bank's payment revenue by 75% or more, payment revenue is decreasing as a percentage of overall revenue, pushing banks to find other ways of leveraging real-time payments.

Real-time payments can enable 'strategic capabilities' for financial institutions to innovate on top of existing infrastructure and create entirely new business models such as lending or micro-insurance products.

Because of the increasing ubiquity of real-time payments in many geographies, and increased 3rd party competition, banks are turning towards value-added products and services to differentiate.

Cross-border real-time payments had a slow start in Asia but are starting to increase in importance and relevance and will be essential for Asia's banks especially as the Asian Payment Network (APN) develops.

A critical enabling component of innovation on real-time payments is Open and API banking. Modernized payment infrastructure provides the standard APIs and interfaces to allow for a higher degree of interconnectivity and agility to both deal with current challenges and future opportunities.

# Asia in Real-time

Although the terms “instant payments” and “real-time payments” have become a regular part of the financial industry’s vocabulary, the first concept of a real-time digital payment came from an 1887 utopian novel by Edward Bellamy called “Looking Backward.” The book described the concept of using a card for purchases and even used the term “credit card.”

However, society needed to wait nearly another century before we had anything similar to digital payments. In 1966, a device called a “Computer Loan Machine” was launched in Japan, which supplied cash as a three-month loan after inserting a credit card.

Real-time payments as we know them today also started in Japan in 1973 when the country launched the Zengin system, the first domestic real-time payment platform globally. It was not until 1987 when the next country went real-time: Switzerland, and then Iceland in 2000 and South Korea in 2001. Although a few more nations experimented in real-time payments in the few decades following, the United Kingdom’s shift to “Faster Payments” in 2008 could be considered the starting point of the current real-time payment modernization wave. Since then, nearly 30 countries around the world have either implemented real-time payments or are in the process.

In Asia, multiple countries have implemented real-time payments, and several more are slated to go live in the next year. By the end of 2018, 81% of Asia’s population will have access to real-time payments.

| Mapping Out Real-time Payments in Asia |                     |               |
|--|---------------------|---------------|
| Country                                | Payment System Name | Year Launched |
| Japan                                  | Zengin              | 1973          |
| China                                  | IBPS                | 2010          |
| Taiwan                                 | CIFS                | 2010          |
| India                                  | IMPS                | 2010          |
| Singapore                              | FAST                | 2014          |
| South Korea                            | KFTC                | 2014          |
| Thailand                               | PromptPay           | 2016          |
| Vietnam                                | NAPAS               | 2016          |
| Sri Lanka                              | LankaPay            | 2016          |
| Hong Kong                              | FPS                 | 2017          |
| Malaysia                               | PayNet              | 2017          |
| Australia                              | NPP                 | 2017          |
| The Philippines                        | NRPS                | 2018          |

# Real-time Payments & Innovation

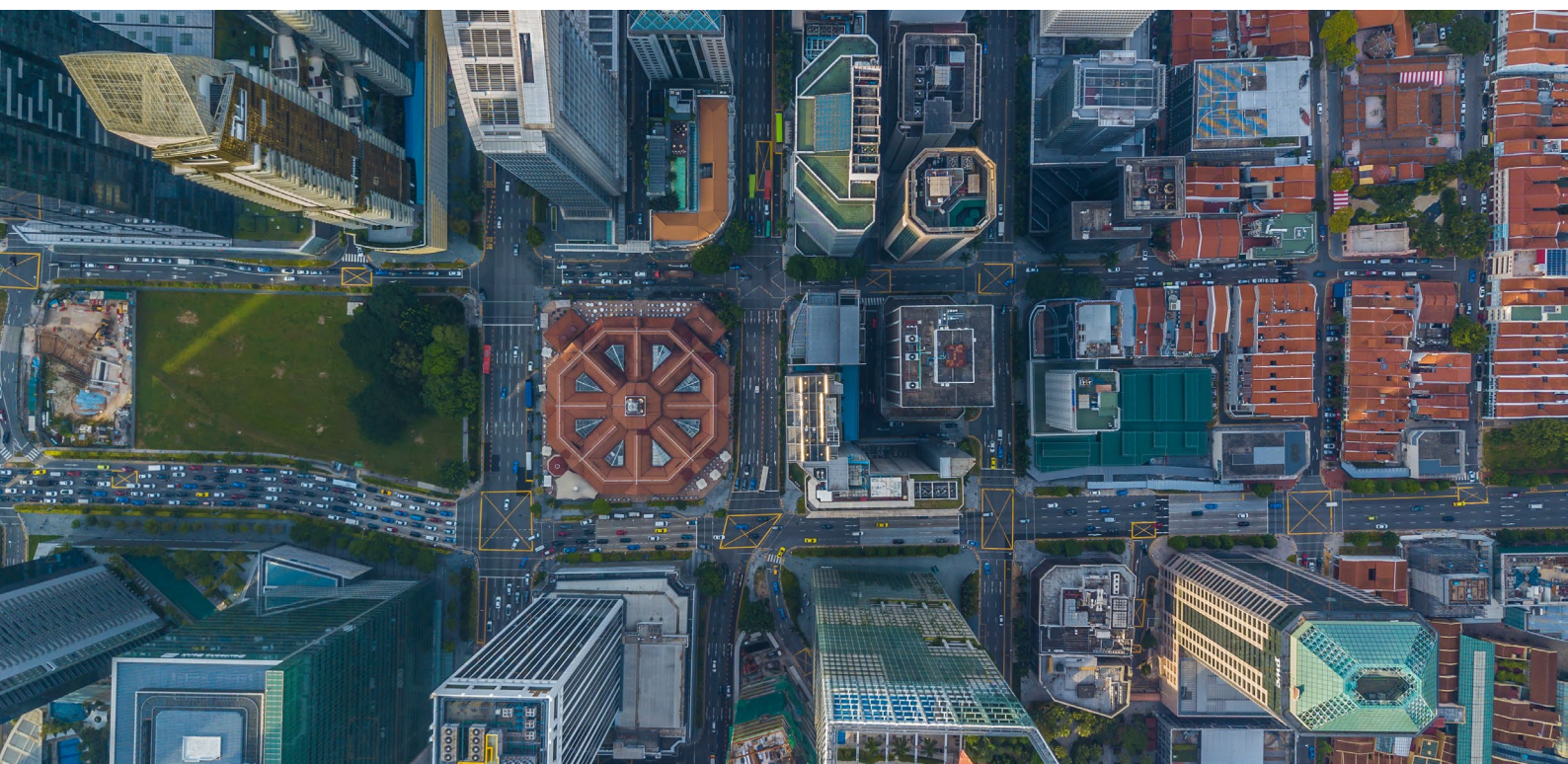
Identifying a business model for real-time payments has always been a challenge for banks. The simplest model was to charge a certain amount for a standard payment, and a premium for a real-time payment.

Indeed, in Asia, real-time payment fees can be up to 5x higher than regular payment fees. Singapore's UOB charges commercial entities S\$1 for a GIRO (1-2 day) payment and S\$5 for a FAST (real-time) payment. This would be an enviable margin, but there has been a race to the bottom in payment fees. Singapore's OCBC charges businesses S\$0.20 for a GIRO payment and, at the beginning of 2018, was running a promotion for FAST transfers of S\$0.20, an 60% discount from the regular S\$0.50.

So real-time payments do provide a potential revenue increase, in some cases, up to 75%. But payment revenue for banks is dropping. Although banks charge for commercial real-time payments, most consumer real-time payments are free.

Granted any revenue is good revenue, but this increase is not significant if compared to overall bank revenue. The real value derived from real-time payments is the agility and strategic capability that they enable. In approaching this opportunity, it is important to distinguish between the real-time payments infrastructure itself and these 'overlay' services that run on top of the infrastructure.

For retail banking, at a basic level, overlay services need to cover internet banking, mobile banking and call center payments, but should also cover mobile P2P real-time services. For corporate banking, services can focus on real-time payroll, cash management, reconciliations and invoicing, as well as on migrating high volume ACH payments to immediate payments.





## Creating an Agile Infrastructure

One of the most significant challenges for many banks globally and one of the most commonly cited concerns of CIOs, is legacy infrastructure, which is typically costly, and very inflexible.

Often, as real-time payment systems are a government-driven initiative, there is a certain amount of infrastructure work that financial institutions will need to do to connect into a country's real-time payment system. For individual banks, this provides a unique opportunity to upgrade and replace legacy systems to enable new products and services.

It is difficult to put a specific monetary cost on legacy infrastructure, but what is more impactful are the missed opportunities. Older infrastructure can limit product innovation, especially when it comes to payments, as it becomes difficult to integrate new payment methods or provide digital banking services.

An excellent regional example of how banks have leveraged new real-time payments infrastructure to create new payment products and services is Singapore's FAST.

## Singapore's Shift to FAST

Singapore's Fast and Secure Payments (FAST) system was launched in March 2014 to provide 24/7 real-time payments. FAST adoption grew rapidly with over 33,000 FAST transfers in the first two days of its launch; there are now more than 20 Singapore banks participating in the program.

In 2017, banks built on top of the FAST infrastructure to launch real-time, and free (at least for the moment), P2P payment transfers. DBS started PayLah!, OCBC Pay Anyone, UOB Mighty, and Singtel Dash, amongst several others. While these new platforms are provider specific, they bring a new level of convenience to individuals who can quickly transfer money to friends and family, as well as merchants who can now use QR codes to settle payments. As of the end of March 2018, nine Singaporean banks offered PayNow services and PayNow has been used for S\$470 million in payments to over 1.2 million registered members.

Similarly, Thailand's main interbank payments provider ITMX launched PromptPay, which is a real-time digital wallet designed to overcome the challenges of lack of infrastructure and expensive fees in Thailand's financial industry. With PromptPay, SMEs can accept payments via their mobile phones which provides a safe and secure way to pay and get paid and also eliminates transaction fees on what are often low-value purchases, especially valuable to financially excluded micro-merchants and consumers. For those wanting to start their own business, PromptPay provides a convenient and relatively risk-free way to setup their financial platform and get paid.

The new payment infrastructure has also enabled cross-border real-time payments. In late 2017, the Monetary Authority of Singapore and Thailand's Bank of Thailand agreed to work together to connect the PromptPay and PayNow systems to enable seamless cross-border retail payments. For both Singapore and Thailand, the real-time payment systems provided the necessary national payments infrastructure and also enabled the banks to launch their P2P payment products on top of the new platforms.







## Sidebar: Cross-Border Real-time Payments

Domestic real-time payment networks enable innovation within a particular country, but the impact can be even greater when examining the cross-border potential.

The largest and most successful cross-border payment network globally is Europe's Single European Payment Area, or SEPA which, in January 2008, provided a common set of payment standards across the European Union.

The implementation of SEPA had a critical advantage in that nearly all participants were part of the European Union, already using the Euro as a common currency, and had one common regulator: the European Central Bank. This political and regulatory alignment facilitated the initial implementation of SEPA and its subsequent iterations enabling near real-time high value payments. As of November 2017, SEPA allowed for instant payments of up to 15,000 Euros.

Asia has always struggled to accomplish any sort of region cohesion around its payment strategy and development. Yet, despite the cultural, geographic, and political differences between Asian countries, we are seeing the start of increased sub-regional cooperation in South-East Asia. Singapore and Thailand have worked together to connect their PayNow and PromptPay real-time payment systems and there has been discussion of a regional ASEAN payment hub.

The region has also launched the Asian Payment Network or APN. The APN was designed to establish a common settlement platform across the region and was originally setup in 2006 by the central banks of Singapore, Malaysia, Indonesia and Thailand. The network has since expanded to a total of 10 countries, including the Philippines, which recently launched InstaPay, and Vietnam as well as South Korea, China, Australia and New Zealand.

In addition to providing a platform for streamlining existing payment products, real-time payment infrastructure can enable entirely new and compelling retail and corporate products that would not have been possible without real-time payments.

'Micro-insurance' in China is a segment of very specific, and typically short duration insurance products. Through a mobile phone, individuals can purchase products such as 'shipping insurance' or 'flight-delay insurance.'

Shipping insurance is provided by several of the e-commerce platforms in China. The basic idea is that if the customer does not like the product, they can return it at no additional cost. The cost of the insurance is minimal, only a few cents, and is purchased as part of the check-out process on the e-commerce website.

Flight delay insurance is another product that can be either bought on its own, or as part of the purchase of a flight ticket and provides the buyer compensation if a flight is delayed. Purchase is instant, as well as confirmation. The insurance provider tracks flight statuses and will give the consumer an instant payout within seconds of the flight being delayed beyond the timing in the policy.

Both of these micro-insurance products are very small use-cases but are good examples of where real-time payments are a specific requirement of the product. As e-commerce orders are typically processed in hours, waiting a day for a payment is not an option. Similarly, a customer can buy flight delay insurance or even travel insurance right at the airport before they fly – the speed of the transfer is critical.

As commerce and finance increasingly move to the mobile phone, there is a growing interest for on-demand products similar to the digital insurance examples above. Consumers are looking for instant transactions especially as 3rd party providers like Ant Financial continue to shape expectations of what is possible.

Real-time payments can also help companies to improve cash management. When payments are sent and received faster, companies have a better control of where their cash is and what they are able to do with it. This can help with collections, inventory management, and better return on investments. Accounts payable and receivable can be settled around the clock.

Further, ISO20022 messaging standards enrich payment messaging to handle common scenarios in the life-cycle of a transaction which can include communicating when a transaction is completed or if there are exceptions. All of this can be communicated within the payment system as to not interrupt a work flow. This instant communications among counter-parties around requests for payment, exceptions and approvals or rejections, can add value throughout a customer and supplier network to better improve customer experience and communication.



Internally, real-time payments can also help within an organization to facilitate and improve employee processes (e.g., payroll, T&E reimbursement). As an example, in Southeast Asia, Grab, the Singapore-based Technology company, uses real-time payments to facilitate payouts to its drivers. Instead of receiving monthly payouts, a driver's earnings can be settled on a daily basis, especially important in a segment where cash-flow is critical.

Real-time can also help corporates and financial institutions to serve more clients than would have been possible previously. In general, banks prefer to work with high-net-worth individuals and companies as these are clients likely to transact and hold more money with the bank. With the reduced cost of new underlying infrastructure, banks and corporates can now service clients that may previously have been inaccessible for cost reasons. Many of these include under-banked individuals or SMEs.

Finally, infrastructure can help drive new models of engagement through digital channels such as the mobile phone, channels that may not have been possible before. This can provide a foundation for payment systems to connect into larger global payment networks.



## Sidebar: Third Party Competition

The move to provide a coordinated region approach to payments could not come at a better time especially as non-bank financial payment competition increases in Asia. Ant Financial, as an example, has become a financial technology powerhouse. Initially focused on payments, Ant now provides a variety of financial services and is an excellent example of innovation on-top of real-time payments.

The Alipay product was built on Alipay's internally developed payment rails and offers instant consumer and merchant payments throughout its ecosystem. As Ant realized that more individuals were leaving money on their Alipay wallets, the company launched a wealth management platform that offered instant access to a plethora of wealth management products. They have since developed credit and lending products, all innovations that would not have been available without instant payments.

Ant's ambitions go far beyond China as they increase their international footprint through investments and partnerships. Their initial international focus was on building acceptance networks for its Alipay product, but there has been an increasing focus on developing a cross-border digital wallet network linking multiple payment platforms together to provide a seamless cross-border payment experience.

The entrance of these third-party payment companies has also changed the expectations of the consumers using the platform. The speed with which individuals in China can pay, invest, or borrow money has made Ant Financial and WeChat critical players in China's financial industry.

This expectation has also spilled over into commercial banking as companies large and small expect more from their financial providers. Real-time payments can give companies a better and more predictable view of their cash-flow as well as manage capital more effectively. This especially benefits SMEs, which often struggle more with cash-flow.







As with so many things in the financial industry, there is no such thing as a one-size fits all approach to moving to real-time payments, but there are some important best practices:

## **Real-time as part of a holistic organizational strategy**

Any plan to migrate to real-time payments needs to be part of a comprehensive 24x7x365 strategy. For a financial institution, immediate payments have implications across the business and affect how an organization communicates and interacts with customers, requiring a review across the entire payments value chain. As more real-time payments schemes come into effect, banks must develop the organizational skills and capabilities needed to manage and adapt to a real-time payments environment quickly and effectively.

## **Think beyond the platform**

As customer expectations and competition increases, moving to real-time payments is becoming a necessity for financial institutions to keep up with the financial industry. While the initial cost-savings from an infrastructure refresh may alone justify the investment, it is the products and services that can be built on-top that will be the real source of competitive advantage for banks. This distinction, understanding, and acknowledgment of the difference between the underlying payments infrastructure and overlay services is critical.

## **Start with the customer in mind**

Ant Financial's success in China can be primarily attributed to its understanding of the customer. By capturing more data, the company was able to drive better insights into customer behavior and provide more appropriate products and services. This is also applicable in commercial banking where a better understanding of a business's pain-points can help institutions to provide the right product, to the right customer, at the right time. Any approach to real-time payments needs to come with a clear end-customer value proposition in mind, against which all business and tech requirements are compared.

## **Focus on API / Open Banking**

Europe is in the middle of a dramatic shift to API and Open Banking as part of the 2nd Payment Service Directive (PSD2). While the push to API/Open banking in Asia will likely be much slower with government initiatives only in specific geographies, there are benefits for banks implementing a 'go-it-alone' approach to API/Open banking. Firstly, it future-proofs the organization and puts it in a position of leadership and innovation. Secondly, the use of APIs internally can dramatically reduce costs around the implementation of new systems.



# Conclusions

Real-time payments have become the new normal in many geographies across Asia where they are available. The availability of these platforms and the increased footprint of third party players, like Ant Financial, have changed the customer mindset about what to expect from their payment provider. Increasingly, clients are demanding real-time payments, and any financial institution that fails to embrace immediate payments stands to lose market share, relevance, customer relationships, and revenue.

Although historically, it was often challenging to define a business model around real-time payments, industry participants across the region are leveraging the shift to real-time payments to build agile infrastructure, better understand customers, and launch new products and address new customer segments that may not have been possible before real-time payments became available.

Making the shift to real-time payments in one go can be a challenge though, so many banks have turned to payment hub solutions which often facilitate a cheaper, faster, and better transition. This, combined with working with an experienced partner, can often short-cut the transition.

As the region continues to integrate and shift to real-time, other geographies such as Indonesia and Cambodia will join the rest of the region that already has already moved to real-time payments. Increasingly, the future of real-time in Asia is instant payments, and it is precisely those instant payments that will provide the platform for innovation in the future.



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