

Real-Time Retail Payments in Malaysia

Building the Payments Systems of Tomorrow

Payment System Forum 2017

Peter Schiesser, Group CEO



Who are we?



Malaysia's premier payments network and central infrastructure for financial markets

Bank Negara Malaysia is our single largest shareholder and 11 Malaysian Banks as joint shareholders



We process
in excess of **1 billion**
transactions a year



We clear & settle
RM54.8 trillion
a year (>180x GDP)



Bond depository
RM1.3 trillion
under custody



Who are we?



MyDebit – National Debit Card



SAN – Shared ATM Network



JomPAY – National Bill Payment Scheme



FPX – online payments gateway

Direct Debit – payment collections

IBG & Instant Transfer – payments

eSPICK – nationwide cheque clearing

RENTAS – real-time gross settlement

FAST – national bond tendering system



Introducing the Real-time Retail Payments Platform (RPP)

Bank Negara's Governor publicly announced the Retail Real-time Payments initiative on 1 March 2016

“... a multi-year program to modernise Malaysia's payment infrastructure.

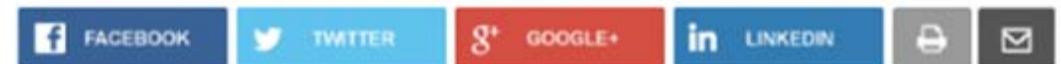
*The key thrust of this plan is to develop a new **real-time Retail Payments Platform** that will serve as both a catalyst and enabler for innovative payments in Malaysia”*

Business News

Home > Business > Business News

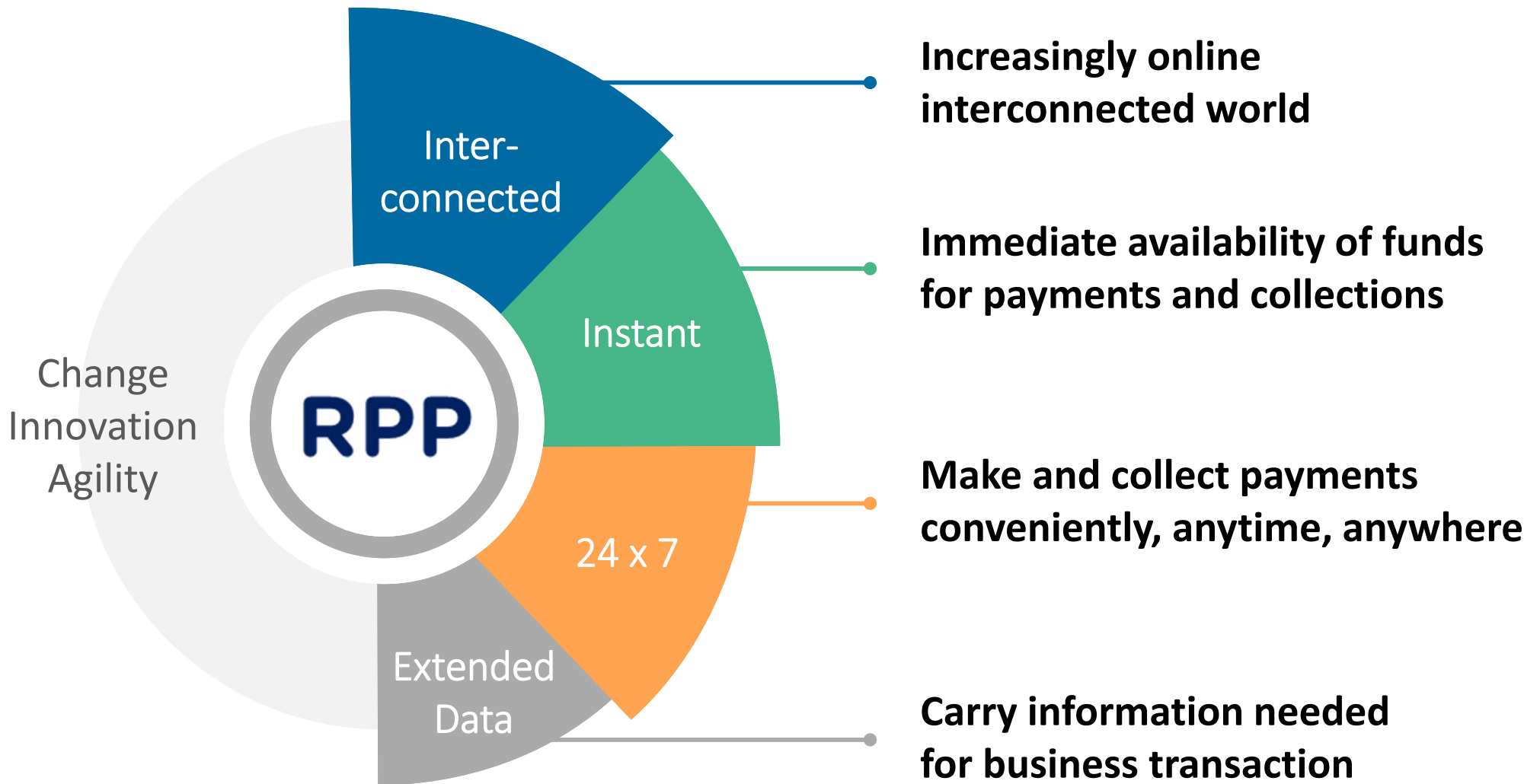
Monday, 4 April 2016 | MYT 10:02 PM

Bank Negara unit MyClear to set up new retail payment platform





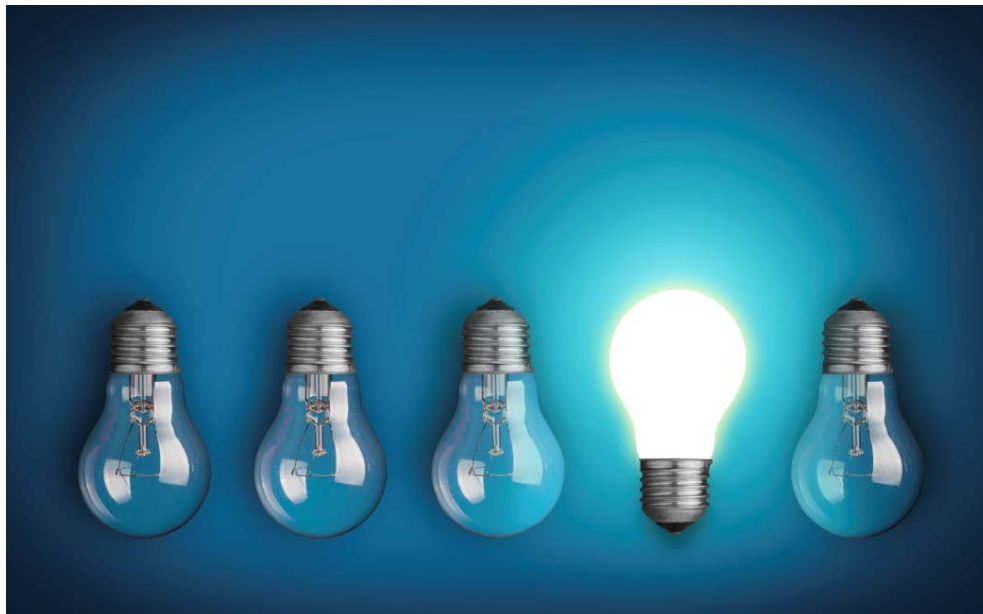
RPP – What Problems are We Trying to Solve?



RPP will provide **immediate payments & collections** using **ISO20022 messaging**



RPP – Driving a Quantum Leap in Payments Infrastructure



National Proposition

Efficiency, Flexibility & Agility

Provide the Nation with a cost effective, agile platform, to respond quickly to new requirements and innovations, ensuring needs can met in a timely & efficient manner and Malaysia's e-Payments ecosystems remains capable, relevant and competitive



Core Infrastructure

Instant Credit (Local)

P2P Payments (Pay to Mobile)

Request-to-Pay (m-Commerce)

Request-to-Pay (Bill Collection)

e-Mandate (establish Mandate)

Real-time Debit (against Mandate)

Instant Credit (Cross-Border)

P2P Payments (Cross-Border)

Innovation

Core Infrastructure & Instant Credit

RPP sets in place a real-time clearing and messaging infrastructure, aimed to efficiently and cost effectively support Malaysia's current and future Retail e-Payment services needs.

Instant Credits are a core intrinsic function of RPP.

A highly resilient architecture, built for high volume, based on ISO20022 standards, with gateway connectors provided at all the banks, that can be easily configured / extended to support new requirements and message flows.



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Innovation

P2P Payments (Pay to Mobile, etc)

Facilitate customers to easily transfer fund using a proxy address (eg mobile number, NRIC, etc) which is resolved into beneficiary bank/account for instant crediting. Customer proxy address details are store in a national addressing database.

Aim to help replace cash payments with easy to use mobile enabled payment solution.

Proven effective in CIC reduction.

In Sweden, the ubiquitous use of Cards and P2P payments, resulted in many bank branches no longer stocking cash.

National approach to the Addressing Database ensures the industry quickly populates data so that customer payments via proxy address will succeed.

 **Pay Anyone instantly with just a Mobile Number** (Launch Aug 2018)

Yellow Bank

Pay Anyone

Mobile No.

Amount

Reference

Select Mobile Number

- Aaron +601317634893
- Abu +601245634891
- Daniel +60162216980**
- Didie +60126920788
- Naqeeb +6012628492

Select Mobile

Yellow Bank

Pay Anyone

Transfer RM22.50 to :

Daniel Amir
+60162216980

Reference: Pizza lunch

Pay **Cancel**

Check & Pay



Pay Anyone with their Mobile Number, NRIC, etc

PayNet will establish a **National Addressing Database and Resolution Service**

Maps **mobile numbers, national registration identity card numbers (NRIC), business registration numbers and other identifiers** to bank/account number

Allowing payers to instruct payments by just specifying the payee's mobile number or NRIC, without knowing the bank account details of the payee

- **Government agencies** can make payments to citizens/tax payers with just NRIC
- **Corporates can make payments** with just the recipients' mobile numbers or NRIC
- **Individuals** can pay each other with just their mobile numbers

Data populated by
Customers via Banks and
held centrally at PayNet

Addressing & Resolution Service

NRIC/Mobile	Bank	Account	Name
430102075122	Bank A	253664354	Khairuan Rahman
019-321-3333	Bank B	533436090	Shyam Bajaj



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Request-to-Pay (m-Commerce)

Facilitates customers mobile based purchases where payment is easily & securely made via the banks' Mobile Banking App for authentication, account selection and approval.

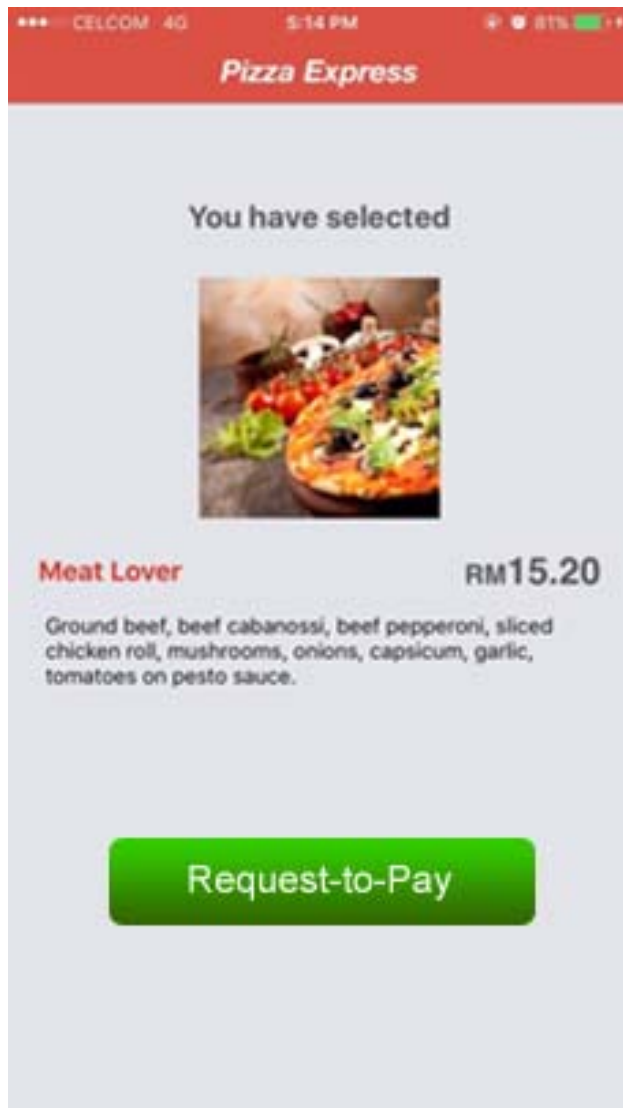
A collaborative industry approach ensures faster, ubiquitous adoption by merchants and customers, accelerating e-Payment usage.

Single button integration on m-Commerce site accessing all banks.

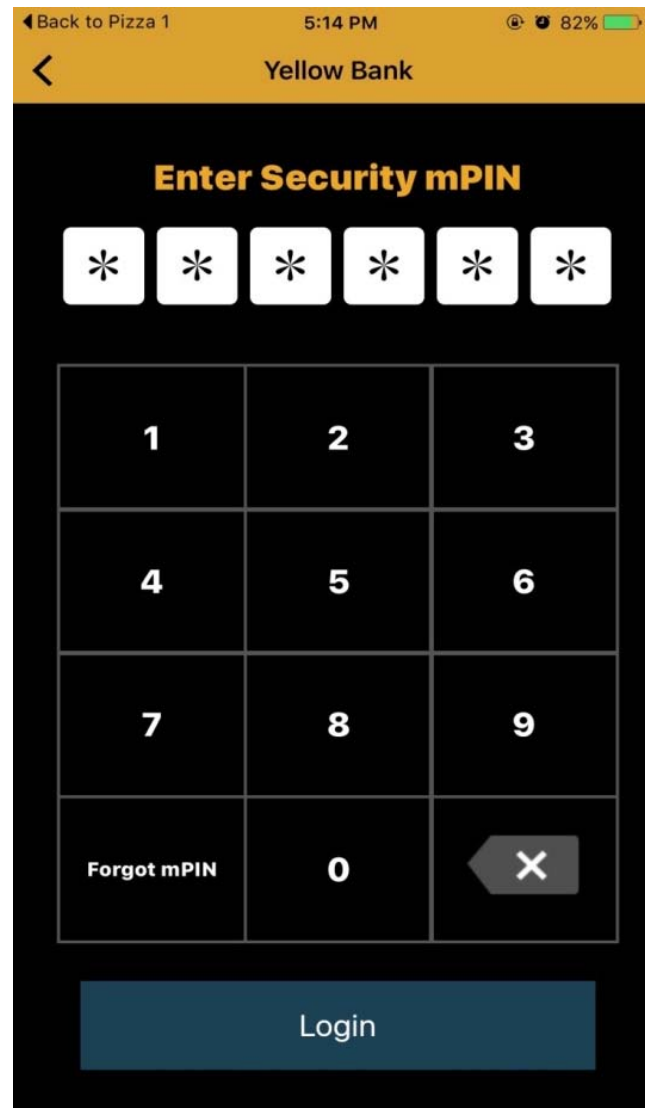
Allow bank and non-bank acquirers to offer mobile-friendly payment solutions for merchants' mobile commerce apps



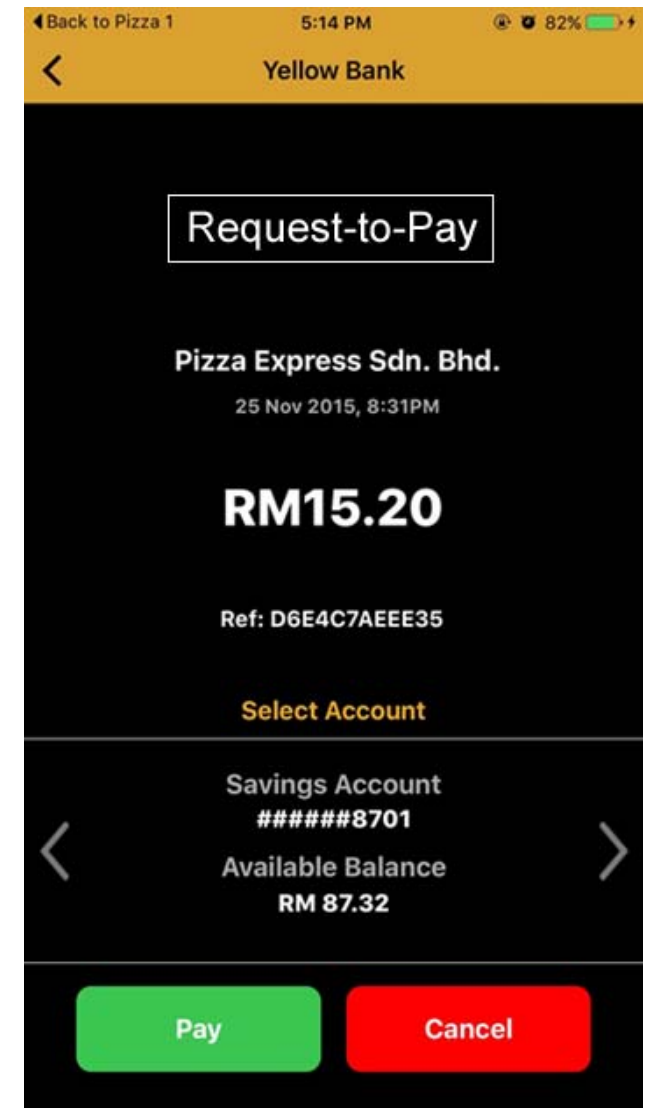
Request-to-Pay: Pay for Online Purchases within Seconds



REQUEST



LOGON



PAY



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Request-to-Pay (Bill Collection)

Facilitates Billers to present a bill and collect payments, thru notification to the Customer (via their Bank's Internet or mobile banking) with subsequent review, account selection and approval for payment.

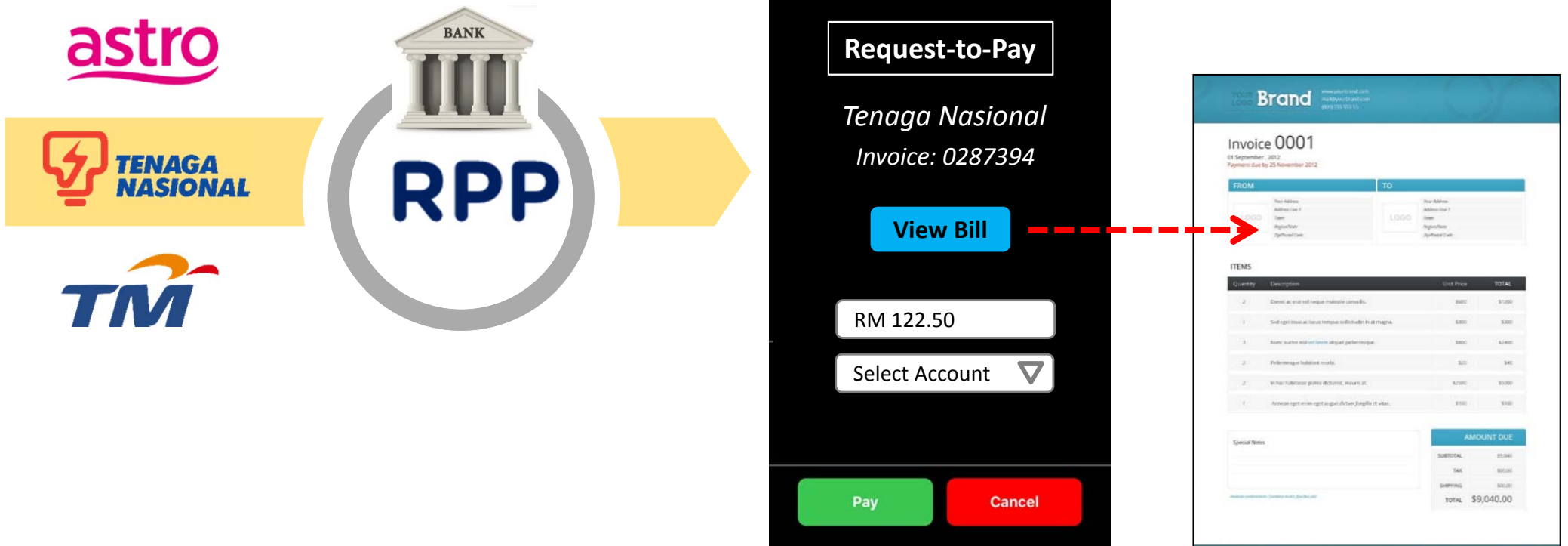
Easy, Convenient and keeps Customer in control.

Ideal for those customers who prefer to have bills details presented online for their review (within the secure confines of Internet or mobile banking) and make payment from the account of their choice and at the time when they have funds available

For Billers, migrate more payments online (reducing cash, cheque and over-the-counter collection and reconciliation costs).

Request-to-Pay for Bill Collection

- **Billers will be able to send a Requests-to-Pay** to their customers to collect payments
- Customer logs onto online banking to **review the Bill payment request**, select a bank account and approve the payment
- Request-to-Pay messages would **include basic Bill Payment data**, and optionally a URL link to the Biller's system for access to more complete information (eg bill PDF)





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E-Mandates & Real-time Debit

Facilitates Billers to (a) establish an e-Mandate, thru notification to Customer (via their Bank's Internet or mobile banking) with subsequent review and approval; and (b) to perform real-time Debits against pre-authorized Mandates.

Easy and Convenient. Ideal for those customers who prefer to have their account debited automatically for payment of pre-authorized bills

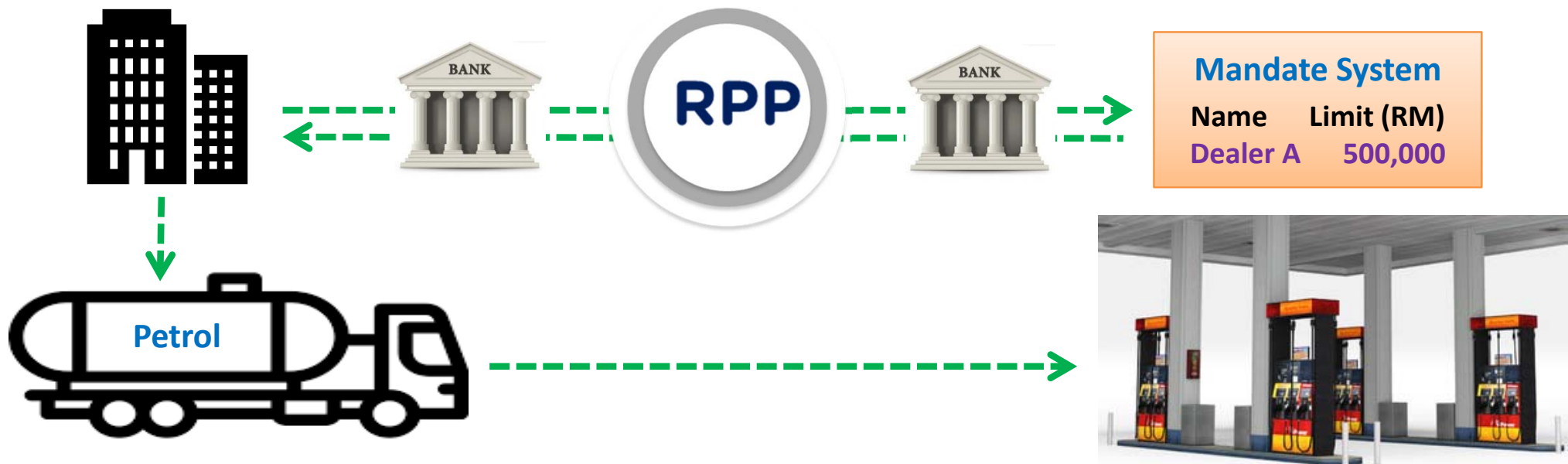
For Billers, e-Mandates leads to lower reject rates and faster authorisations.

Billers can opt to send debit in real-time which is required in certain cases where immediate confirmation of funds is required by the biller.

Instant Direct Debit for Supply Chain Distributors & Wholesalers

Suppliers continue to resort to collecting cheques and cash. **Wholesale & Retail distribution presently accounts for at least 8 million cheques per year and a significant amount of cash**

Reasons for Cash or Cheque Use	How RPP Closes the Gaps
For small retailers who do not have credit terms, cash is usually paid when goods are supplied	<ul style="list-style-type: none"> RPP's Request-to-Pay will allow instant payments when goods are supplied
For big retailers who have credit terms, the supplier may collect post-dated cheques	<ul style="list-style-type: none"> RPP's Instant Direct Debit could effectively reduce post-dated cheques





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Cross-Border Instant Credits & P2P Payments

Facilitate customers to perform cross-border Instant Credits and P2P payments via a proxy address (eg Pay to Mobile).

Initial focus will be on Singapore and Thailand, leveraging our respective national addressing database initiatives.

A material steps towards greater ASEAN integration, streamlining business and personal financial flows across the region.

Once the technical bridge is built with other countries, additional cross-border messaging flows and innovations can be more easily supported.



Enabling innovation in digital payment

LEADING Asian payment system operators have signed a memorandum of understanding (MoU) to enable real-time cross-border payments by connecting their respective payment infrastructures.

The signatories are members of the Asian Payment Network (APN) – Payments Network Malaysia Sdn Bhd (Paynet), National ITMX Co Ltd (ITMX) of Thailand, National Payment Corporation of Vietnam (Napas), Network for Electronic Transfers (Singapore) Pte Ltd (NETS) and PT Rintis Sejahtera (Rintis) of Indonesia.

The inter-connectivity of real-time payment infrastructures across the region will act as a catalyst for innovation in digital payments while dramatically improving the efficiency, cost-effectiveness and timelines of cross-border payments in South-East Asia, taking into account related regulations of their respective central banks.

Consumers and businesses are expected to benefit from instant cross-border payments, immediate payment routing and addressing via mobile numbers, as well as real-time request-to-pay for

Agreement inked as step towards transforming cross-border transactions

cross-border payment collections.

While dialogue and discussions between the signatories are ongoing, concrete progress has been made with the parties reaching a broad consensus to use ISO2002 messaging standards as the basis for regional real-time payments connectivity.

Service availability is expected to be phased in over the next few years, as respective countries and their stakeholders ready their payment infrastructures for interconnectivity.

This collaborative initiative will subsequently encompass payment system operators in the Asia Pacific such as NTTDATA (Japan) so that broad connectivity across the region will be realised.

PayNet Group chief executive officer Peter Schiesser said, "Our collective resolve for regional collaboration will ensure our payment services remain relevant in a fast changing, innovative and globally interconnected world."

ITMX managing director Wanna



(From left) Hung, Wanna, Goh, Schiesser and Abraham at the MoU signing ceremony.

Noparbhorn said, "Building real-time cross-border payment rails expands the reach and utility of our payment offerings, while establishing the necessary infrastructure to support innovation and future needs."

"In an increasingly digitalised economy, the ability to execute cross-border transactions instantaneously has never been more crucial. The initiative of interconnecting real-time payment infrastructures in the region will bring opportunities for each national switch in expanding and developing payment services in line with global payment trends," Napas acting chief executive officer Le Quoc Hung said.

NETS Group chief executive officer Jeffrey Goh said leveraging the combined expertise would strengthen respective services.

Rintis managing director Abraham J. Adriaansz added that the MoU was a significant step towards exploring more value-added payment services, further transforming the cross-border payment landscape.

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RPP provides an infrastructure that can be configured & extended to support new requirements and message flows.

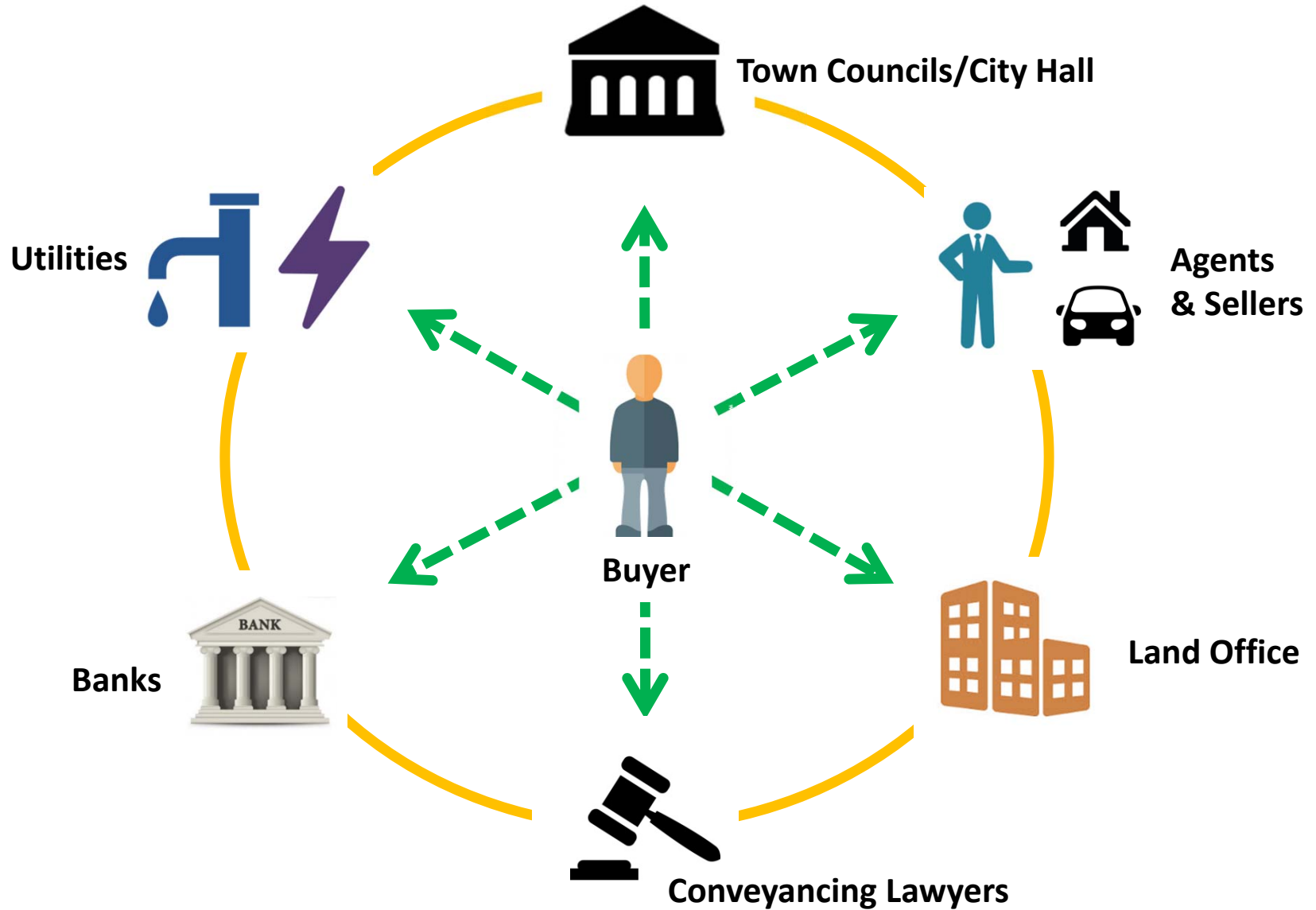
This provides the industry with cost effective flexibility to react quickly to new requirements and innovations, ensuring needs can be met in a timely & efficient manner

Some possible examples:

- **Structured Invoice & Remittance flows** to support end-to-end accounting system integration, for business efficiency
- **Facilitate Open API access** across the industry
- **Delivery-vs-Payment** to support asset transfers (eg vehicle ownership transfers with link to the land office or Road Transport Dept) or release of funds upon delivery of goods
- **Support extended payloads** so carry all information to complete business transactions as opposed to just payment information



Delivery vs Payment (DVP) for Asset Transfers





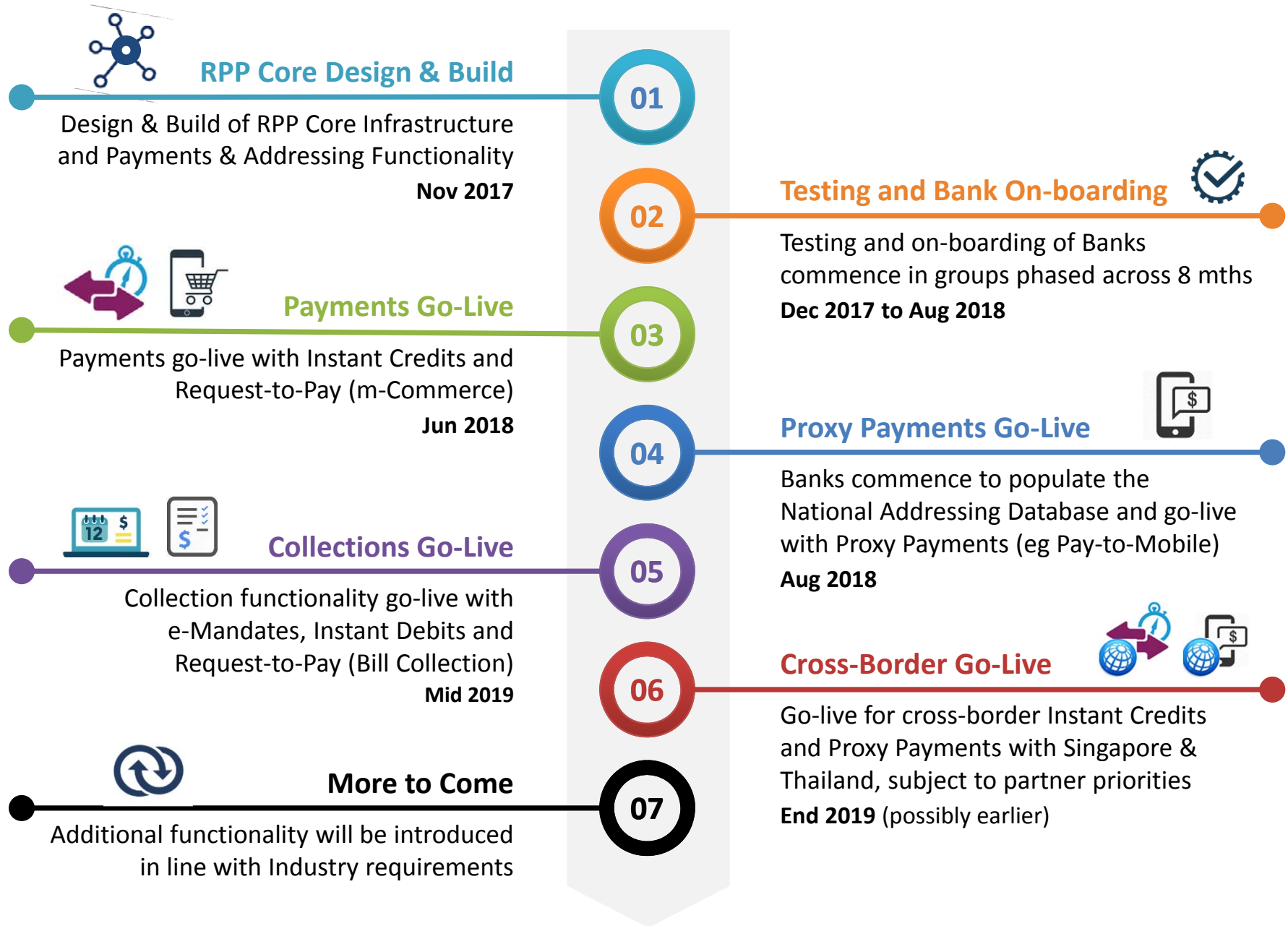
Supporting Innovation – Building in Agility as a Core Enabler

RPP aims to **remain relevant even as consumer preferences and market trends shift**, because new services can be **introduced via RPP easily**

- **Innovation:** RPP would be a platform on which PayNet, banks and payment service providers can **easily introduce new and innovative e-Payment products** that address the needs of consumers and businesses of the future
- **Flexibility:** RPP will provide the **ability to configure new payment flows, business rules, and payment messages** without the need to change software
- **Agility:** The average time to release **new and innovative products would be greatly reduced with the configuration of payment flows and rules**



RPP Technology Roadmap





PAYMENTS NETWORK MALAYSIA

www.paynet.my