Transport Payments Asia Pacific

Day One: Wednesday, 6 June 2018

8.00	**Registration**

OPENING	**Welcome Messages**

9.00 Welcome and opening address

Nghiem Thanh Son, Deputy Director General, Payment Systems Department, The State Bank of Vietnam

Welcome and opening address

Madhu Raghunath, Program Leader for Sustainable Development, World Bank Group

INTRODUCTION	**Event Overview**

9.30 Introduction to this year's forum, theme and objectives, business and technology areas to be discussed.

Greg Pote, Chairman, APSCA

SESSION 1	**Transport Payments in 2018**

9.45

Smarter, data-driven, frictionless experiences

A Perspective on Commuter Travel in the UK

One of the leading operators in the UK discusses how technology is transforming the way that customers engage with and use public transport, and how moving passengers to a low-touch engagement offers new ways to optimise the retailing of transit and transport services. This is illustrated through a daily commute.

- Moving people from ticket office to self-service to app to ibeacons
- The journey through smart cards, barcoding and contactless payments
- Innovations in customer information services
- Account-based ticketing (ABT): a case study from Brighton

David Maitland, Business Unit Director and General Manager, Go Ahead Retail Services

10.05

Update on a successful interoperability initiative

National Interoperability for Transport Payments in Japan

In 2013 Japanese operators launched national interoperability across all public transport payments systems. JR East explains what was required to achieve this and the outcomes over the last 5 years, including benefits for customers and impact for operators. The presentation also covers recent developments in transport ticketing in Japan.

- Planning, agreement, design and development to achieve national interoperability
- Inter vs intra region interoperability, impact on number of passengers and journeys
- Enhanced auto top-up to support customers for longer commuter journeys (e.g. Shinkansen)
- Cloud-based mobile acceptance of Suica retail payments using standard smartphones

Tomohiko Umekawa, Deputy General Manager, IT & Suica Business Development Headquarters
East Japan Railway Company (JR East)
Makoto Nishigoori, General Affairs Department General Affairs Section Manager, PASMO

10.30	**Refreshments**

SESSION 2	**Accepting Third Party Open-Loop Payments**

11.15

New fare payment options for customers

Considerations for issuers, schemes and operators

Accepting open-loop payment products, such as EMV contactless cards or mobile wallets, for public transport fare payments can deliver improved convenience to customers. Offering customers additional fare payment options can also benefit both transport operators and transport ticketing schemes as well as the third-party payment product issuers but there are commercial and practical considerations to be addressed. This session highlights benefits and considerations for accepting third-party open-loop payment products as fare media.

- Accepting third-party fare payments is a significant trend in public transport ticketing. What benefits does this offer to customers, to payment product issuers, and public transport operators?

- For customers that do not have a bank account, who would be responsible for issuing prepaid EMV contactless cards to those customers: banks, transport ticketing schemes, or other organisations?

- What is the impact of accepting EMV contactless payments or mobile wallets on the acceptance devices in public transport schemes, on fare transactions and processing, and on risk management?

- What are the range of possible open-loop third-party payment media that transport operators could accept? Which would be easiest to accept, and which are likely to be most popular with customers?

- Public transport ticketing systems typically have complex fare structures and multiple fare concessions that need to be offered to customers. How can these be provided by accepting third-party payments?

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SESSION 2	Accepting Third Party Open-Loop Payments	continued

11.15   **Considerations for issuers, schemes and operators**

New fare payment

options for customers

Viewpoint 1:	Nguyen Quang Minh, Deputy CEO, Research and Development National Payment Corporation of Vietnam (NAPAS) [~20min]
Viewpoint 2:	Jamie Fu, Director, Business Development Mastercard [~20min]
Viewpoint 3:	Mick Spiers, Vice President, Revenue Collection Systems, Asia Pacific Thales [~20min]

12.15   **Discussions: Preparing to accept third-party fare media** [~30min]

What is the business case for open-loop payments in transit and for transport authorities accepting third-party fare media? Will it be commercially feasible, or socially acceptable, to implement acceptance of EMV-based fare media in markets where many public transport customers are unbanked or underbanked? What are the commercial and technical issues for integrating legacy transport ticketing systems with EMV devices/QR code readers, and upgrading ticketing systems to support both account-based and card-based ticketing? What are the respective responsibilities of transport authorities accepting open-loop payments, banks issuing EMV contactless cards and other parties issuing open-loop mobile wallets? Is there a need for national coordination and guidelines for transport authorities accepting open-loop payments as well as the providers of open-loop payment products which?

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Nguyen Quang Minh, NAPAS
Jamie Fu, Mastercard
Mick Spiers, Thales
David Maitland, Go Ahead Retail Services

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12.45   **Lunch**

SESSION 3	Evolution of Account-based Ticketing

13.45   **The shift from media-based to server-centric fare collection**

From transit ticketing to

transport payments

Extensive coverage of the Transport for London (TfL) scheme may have encouraged the idea that account-based ticketing (ABT) is nothing more than accepting EMV contactless cards for fare payments. The reality is, account-based ticketing could be implemented with closed-loop contactless cards, with operator or third-party mobile payment products, without accepting EMV contactless cards for fare payments, and in off-line scenarios. This session explores different ABT scenarios being implemented today and why ABT is likely to become the future of transport payments.

- In an ABT system the fare media is only an identifier linking customers to their back-office account. EMV contactless cards are only one type of fare media. What some others that could be used?

- How can closed-loop contactless transport cards support account-based ticketing, why are they likely to be used for most ABT transactions and how does this benefit transport operators?

- Is there a sufficiently strong business case for stand-alone EMV ABT systems and back-offices as add-ons to existing card-based ticketing systems without fare integration into a complete ABT system?

- Closed-loop transport cards are still the highest performance transit fare media except for the need to load cards with value, tickets etc. Are ABT systems the only solution to this problem?

- How does a complete account-based ticketing system make it easier to deliver digital customer services so that passengers can purchase and manage transport products online and over mobile devices?

Viewpoint 1:	Silvester Prakasam, Head of Business Unit, Fare System MSI Global [~20min]
Viewpoint 2:	Paradon Nitaya, Business Development Director Bangkok Payment Solutions [~20min]

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SESSION 3	Evolution of Account-based Ticketing	continued

14.30   **Discussions: Transitioning to complete ABT systems** [~30min]

ABT systems in Asia appear more likely to include both open-loop and closed-loop fare media acceptance with a growing variety of fare media types that will include QR codes, mobile and BLE in addition to transport and bank cards. Closed-loop transport cards are essential for complete account-based ticketing unless the plan is simply for a full-fare PAYG add-on to support tourists and itinerant customers. A complete account-based ticketing system where the transport authority is the back-office and manages all the payment sources connected to it can offer PAYG, season tickets (period passes), concession passes and entitlements to a complete customer base. An add-on ABT solution designed to accept EMV contactless payment cards helps to solve the costly single journey problem and support tourists and itinerant customers but will not support concessions or the complete customer base.

Silvester Prakasam, MSI Global
Paradon Nitaya, Bangkok Payment Solutions
Miki Sziksai, Snapper Services

15.00   **Refreshments**

SESSION 4	Transport Payments Policy & Strategy

15.45   **Pathways to integration and interoperability of transport payments services**

Transit ticketing within payment systems development

Several important mass transit projects developing in HCMC, Hanoi and Danang, for urban metros, extended BRT/bus systems as well as toll roads, are currently set to deploy different electronic ticketing systems without integration of transport payments or interoperability between transport modes. In the world's fastest developing region, this is not the first occurrence of this scenario. This session aims to explore options for solving the problem of ongoing public transport projects in Vietnam [or any market] that plan to deploy different payment solutions.

- Why do urban public transport systems develop without integrated payments across all modes and how can policymakers, regulators and transport operators prevent such reoccurrences in future?

- Assuming a business case for integrated transport payments in cities, and for national (intercity) public transport, then is there also business case between urban public transport systems of different cities?

- Is it more feasible to focus on smart integrated multimodal transport ticketing for residents of each city, with acceptance of third-party open-loop payments to cater for visitors?

- What type of organisation should be responsible for integrating the transport payment services of all municipal transport systems, such as by collecting revenue, clearing and reconciling transactions?

- What governance frameworks and operating models (public or private sector) have been successful in other Asian markets and, importantly, why were they successful in those markets?

Viewpoint 1:   Eric Turner, Transport Analyst, Transport & ICT Global Practice
                          World Bank Group [~15min]
Viewpoint 2:   Hiroshi Anzo, Senior Project Formulation Advisor
                          Japan International Cooperation Agency (JICA) Vietnam Office [~15min]
Viewpoint 3:   Sangmin Hyun, Senior Sales Representative
                          Korea Smart Card Co., Ltd (KSCC) [~15min]
Viewpoint 4:   Ting Chen, President
                          EasyCard Corporation [~15min]

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SESSION 4	Transport Payments Policy & Strategy	continued

16.45 **Roundtable discussion with transport and payments stakeholders**
Moderated by Peter Manners, Digital Payments Asia Pacific & Greg Pote, APSCA

One city at a time and then city to city

Led by: State Bank of Vietnam, NAPAS, World Bank Group
The objective of this session and discussion is to generate recommendations for policies and strategies that can lead to the following desired outcomes. (These outcomes have some urgency as procurement decisions relevant to transport payments systems are either being made or will be made soon.)

1- Smart integrated multimodal ticketing in major cities
2 - Interoperable transport payments for national (intercity) public transport
3 - Options for interoperability between urban smart integrated ticketing systems of different cities

Moderators will lead discussions with stakeholders representing major public transport projects in Vietnam to develop a pathway(s) towards the integration and interoperability of transport payments. Targeted outcomes include efficient public transport services with increased modal share and excellent customer experience. Subject matter experts will provide guidance and share experience from transport payments systems in other markets. The session will also consider how, if integration and interoperability of transport payments could be achieved, this might potentially drive e-payments adoption and boost broader payment systems development.

To take these objectives forward it will also be considered whether an industry group of transport stakeholders, reporting to and advising regulators, should continue to meet to develop a clear pathway towards integration and interoperability of transport payments services.

17.30 **Close of day one**

Transport Payments Asia Pacific

Day Two: Thursday, 7 June 2018

8.55   **Introduction to day two**
Introduction to agenda for day 2, speakers and session objectives.

Greg Pote, Chairman, APSCA

SESSION 5	Mobile Transport Payments

9.00   **Delivering improved customer experience**

Giving customers flexible ticketing options

There is a resurgence of interest in mobile solutions to public transport payments. Mobile transport ticketing offers solutions to a range of challenges in transport payments schemes including ticket sales, reloading and top up; single journey tickets; managing visitors and itinerant customers; as well as delivering information, schedules and timetables to passengers. This session explores the different mobile payment service options available to transport operators and how they can deliver a significantly improved public transport experience for customers.

- What are some of the ways that mobile can improve customer experience of making payments in public transport? How do operators measure ROI from implementing mobile ticketing?

- When it comes to mobile ticketing, transit operators are presented with several options. Should they implement a standalone platform or an extension of their core ticketing system?

- Interest in mobile transport ticketing has been accelerated by mobile QR code payment solutions for ticket purchases and pay-at-gate. What advantages do QR codes have over mobile NFC in transit?

- Mobile NFC payments are exhibiting much faster growth in mass transit than in retail scenarios. Is this due to OEM-Pay brands or Host Card Emulation (HCE) solutions, or for completely different reasons?

- Does the business case for mobile proximity ticketing make more sense for accepting third-party payment products (e.g. OEM-Pays or mobile wallets) then for operator-driven mobile payments?

Viewpoint 1:   S.L. Wong, Regional Marketing Manager, Transport & Ticketing
                 Infineon Technologies [~20min]
Viewpoint 2:   Michael Zerelli, Vice President Digital Sales & Director
                 Gemalto [~20min]
Viewpoint 3:   J.T. Jian, Assistant GM of Product Department
                 UnionPay International [~20min]
Viewpoint 4:   Anuj Goel, General Manager - Head (AFC)
                 Mumbai Metro One [~20min]

10.20   **Discussions: Will mobile QR code transport payments overtake mobile NFC?** [~30min]

Recently public transport operators in India and China have launched QR code-based mobile transport payments initiatives and other operators in Asia look set to follow. So far this is mainly acceptance of third-party mobile payment products by transport operators. This is focused on providing customers with more flexible ticketing options, particularly for itinerant travellers purchasing single journey tickets. What is the business case for transport authorities to implement new transport ticketing equipment to accept QR code-based mobile payments when their entire ticketing infrastructure is contactless? Is this driven by the sheer volume of customers using the mobile QR payment products? Mobile NFC payment transactions are growing faster in transport ticketing then at the retail point-of-sale, but will they be overtaken by QR code-based mobile transport payments?

S.L. Wong, Infineon
Michael Zerelli, Gemalto
J.T. Jian, UnionPay international
Anuj Goel, Mumbai Metro One

10.50   **Refreshments**

Transport Payments Asia Pacific

Day Two: Thursday, 7 June 2018

SESSION 6	How to Launch EMV Contactless in Transit

11.30

Case studies from PTOs in

Australia and UK

Best practices for transitioning to open-loop fare payments

Transport for London (TfL) is not the only case study of a public transport scheme accepting EMV contactless from which other public transport authorities and operators (PTOs) should study best practices. This session looks at lessons learned from cities with populations ranging from 150,000 to 5 million and different public transport infrastructures in the UK and Australia that include rail, bus, ferries and more. This will also explore the latest findings about business models and strategies to manage risk when accepting bank-issued payment cards in transit.

- How should PTOs plan for the transition to accepting EMV contactless payments in transit: vendor selection / preparation, implementational, operational, marketing and customer service issues?

- What are some best practices for PTOs to establish in agreements and working arrangements with card acquiring and issuing banks, and what support can international payment schemes offer?

- What do PTOs need to know about authorisation requirements, aggregation strategies, settlement processes and the sharing of first ride risk, relative to the usual risks inherent in closed loop transit?

- How should PTOs manage account-based ticketing risk by using lists, 'first ride risk' agreements, and authorisation tactics? How can initial declines be recovered through various reclaim processes?

- How can PTOs offer 'best fare' ticketing across multimodal journeys, replace daily, weekly and monthly tickets with fare capping and use fare aggregation to benefit both themselves and their customers?

Viewpoint 1: Lewis Clark, Executive Director, Information and Ticketing Services, Customer Services Division
Transport for NSW [~20min]
Viewpoint 2: Michael Walters
Independent Payments Consultant [~20min]
Viewpoint 3: Manoj Sugathan, Head of Chip, Contactless and Transit Programs
Visa [~20min]

12.30

Discussions: How to manage EMV contactless payments in transit [~30min]

An opportunity to quiz experts on operational and risk management considerations related to account-based and open-loop ticketing models for transport operators accepting contactless EMV payment cards and devices. A major concern for operators is managing the risk of accepting EMV contactless payments in off-line scenarios. How does risk change when accepting open-loop payments? How can innovative use of lists help to manage risk? What agreements should transport authorities aim for with card issuing banks? What is the role of the schemes? How should transport authorities manage declines on open-loop payments and what are the available options for debt recovery? What are the current empirical data for declines, do declines reduce over time, and what are effective debt recovery strategies? What are the typical reasons for declines? What differences are there between accepting local and foreign EMV contactless payment cards?

Lewis Clark, Transport for NSW
Michael Walters
Manoj Sugathan, Visa

13.00 **Lunch**

SESSION 7	Cloud-based Transport Payments

14.00

Simple and innovative

transit payments

Mobile cloud-based ticketing, ticketing-as-a-service

While transport operators face cost constraints they are also under pressure to offer new mobile and Internet-driven services demanded by customers. In contrast to legacy transport ticketing infrastructures, cloud-based solutions offer the flexibility to quickly and easily offer new and innovative services. This session explores whether cloud-based mobile ticketing and ticketing-as-a-service solutions are a better route to providing the lower costs and simple operations which many PTOs require for AFC, while also enabling the innovative digital transport payments and passenger services required by customers today.

- How does the cloud enable mobile transport ticketing and fare payments, and cloud-based transport card and ticket issuance? What are the benefits for customers and operators?

- Will cloud-based mobile ticketing solutions work across all consumer mobile devices? Are they more effective using mobile QR codes or mobile NFC payments?

- If cloud-based mobile ticketing solutions store transit card details in a back-end cloud server then is this the same as account-based ticketing? If not, then what are the differences?

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SESSION 7	Cloud-based Transport Payments	continued

14.00   **Mobile cloud-based ticketing, ticketing-as-a-service**

- How can pay-per-use AFC based on hosted and shared transport ticketing systems be a more effective way to provide transport payments services to small to medium-sized public transport operators?

- Do cloud-based pay-per-use ticketing solutions facilitate the delivery of mobile ticketing and Internet-driven ticketing products? Would smaller PTOs have the capability to operate these solutions?

Viewpoint 1:   Hary Permadi Kartono, Director of Sales, ASEAN, Secure Issuance
                       HID Global [~20min]
Viewpoint 2:   Ihar Bayarenka, Business Development Director for SAPAC region
                       NXP Semiconductors [~20min]
Viewpoint 3:   Miki Sziksai
                       Snapper Services [~20min]

15.00   **Discussions: From the cloud to ABT to ticketing-as-a-service** [~30min]

Cloud-based ticketing can transform the way that customers engage with and use public transport by shifting their interactions from ticketing offices and retail outlets to self-service. But does the success of the strategy depend upon the proportion of customers using smart phones, and how many customers are willing to use mobile payments? Cloud-based mobile ticketing and account-based ticketing are both server-based approaches to transport fare payments. What do they have in common and is cloud-based ticketing the first step on the road towards account-based ticketing? Transport operators can continue along this roadmap by using emerging digital, cloud and account-based ticketing to develop cost-effective ticketing-as-a-service approaches that enable opex-based, rather than capex-based approaches to automated fare collection. Could this pay-per-use approach to AFC help to shift the large number of small to medium-sized public transport operators from paper to electronic ticketing?

Hary Permadi Kartono, HID Global
Ihar Bayarenka, NXP Semiconductors
Miki Sziksai, Snapper Services

15.30   **Refreshments**

SESSION 8	The Vision for Mobility

16.15   **Enabling customers to buy door-to-door travel services**

Integrating public and private transport

The vision of Mobility-as-a-Service (MaaS) proposes over-the-top services that integrate all public/private transport options into a personalised model to enable the customer to travel from door-to-door as efficiently as possible, typically for a monthly account-based fee. Innovative cloud-based on-demand transport services can connect with public transport services through MaaS aggregators/agents that display, book and pay for mobility services between transport providers, offering complete travel plans, prices and a single payment for customers.

- MaaS envisions public and private transport providers connected to online market(s) where open data defines service offerings. Who are the aggregators that can display/book transport options for customers?

- Finland recently regulated an open market for mobility services for passengers and services by mandating mobility providers to open data and API's to third parties - would this be feasible in Asia?

- For mobility aggregators or agents to connect public and private transport operators, how would they form agreements with and integrate the services of transport providers and their payment systems?

- Will all public and private transport providers be willing to connect to MaaS aggregators/agents and let them manage customer payments? Who would the customer call with a payment problem?

- Will public and private transport providers be willing to allow mobility aggregators and agents to handle customer engagement and provide customer experience for their services?

Viewpoint: Jerry Lim, Country Head [~20min]
                    Grab Vietnam

Transport Payments Asia Pacific

Day Two: Thursday, 7 June 2018

SESSION 8	The Vision for Mobility

16.40 **Discussions: Mobility-as-a-Service in Asia** [~30min]

For years the industry has been focused on implementing integrated multimodal smart ticketing for public transport. But customers make door-to-door journeys which public transport does not always support. The rapidly proliferating on-demand private transport and mobility services can bridge the gaps at either end of a public transport journey but they need to be integrated with public transport. What organisations, MaaS aggregators or others, can combine mobility providers into complete journey plans at best prices with a single payment for the customer and then reimburse all mobility providers that contributed to the customer's journey? In this scenario who "owns" the customer relationship? What would commercial arrangements look like and what they be dominated by larger mobility providers, possibly stifling innovation? Is regulation, or at least guidelines if not governance required? And of course any seamless door-to-door journey must include a seamless or even invisible payment process.

CLOSE	Wrap-up

17.10 ▪ Conclusions, thanks and next APSCA events

Greg Pote, Chairman, APSCA

▪ Closing remarks and thanks

Nguyen Dung Hung, Deputy CEO, National Payment Corporation of Vietnam (NAPAS)

17.20 End