

Briefing: Secretary
FOR INFORMATION

Post travel report: Lewis Clark and Kurt Brissett, to London, United Kingdom



Transport
for NSW

Purpose: To report to the Secretary on the recent overseas travel to London, United Kingdom, from 4 March to 9 March 2023 inclusive, to attend Transport Ticketing Global 2023 and meet with Transport for London (TfL).

Analysis: \$568 million has been committed by Government to deliver Opal Next Generation (ONG) over the next five years. Market sounding has commenced and it is essential that Transport for NSW (TfNSW) actively engages with industry to maximise awareness and participation in any subsequent tenders.

Transport Ticketing Global is the world's largest public transport event for smart ticketing and mobility professionals. The event attracted a global audience with representation from 65 countries and provided an opportunity to meet other leaders and ticketing specialists from transport operators, authorities, industry bodies and technology providers. Overall, the objectives of the trip were met.

Summary:

1. Most large global transit jurisdictions have a strategy to implement open loop contactless payments as part of their next generation ticketing systems.
2. Account-based ticketing is planned to supersede the card-based systems of many transit jurisdictions, providing unparalleled fare media choice and fare pricing flexibility, including concessions-based options on a variety of media.
3. Account-based ticketing global standards are yet to be defined and consistently adopted, which has contributed towards slower than anticipated adoption.
4. There is a growing trend amongst transport agencies and vendors to support modular implementations of account-based ticketing.
5. Many vendors and financial service providers are beginning to offer white label Europay, Mastercard and Visa (EMV) as a means of enabling transport jurisdictions to issue their own branded fare media that can be used to pay for both public and private transport services.
6. Our current ONG strategy and implementation plan is well aligned with industry and government developments elsewhere.
7. While contactless payment integration risks exist in our current program of work, the ticketing industry and payments schemes are rapidly moving to standardised and open operating models, where EMV can be easily introduced into legacy ticketing networks.

Objective Reference:
BN22/00944

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Kurt Brissett, A/Chief Technology and Innovation Officer

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8. TfNSW is a world leader in the provision of its multi-modal digital customer experience across the plan, book and pay value chain.

Key learnings and outcomes

Benefits to TfNSW

\$568 million was committed by Government over the next five years to deliver ONG to replace its current Opal ticketing system. This investment is necessary to enable TfNSW to procure and replace its aging ticketing infrastructure and systems with a best of breed, account-based ticketing system. In preparation for undertaking this procurement, it is essential that industry is aware of and engaged in relation to this forthcoming program.

Transport Ticketing Global is the world's largest event dedicated to smart ticketing for transport. The conference provided TfNSW with important insights in relation to how vendors and other transport jurisdictions are addressing key challenges for public transport ticketing. It also provided the ideal opportunity for TfNSW to signal its intent to market that it will be shortly undertaking a modular ticketing procurement activity.

The event also provided TfNSW with valuable information in relation to how vendors and other ticketing jurisdictions are transitioning their legacy ticketing systems to contemporary account-based ticketing architectures. These insights have now contributed towards TfNSW's development of a comprehensive customer and technology strategy, and requirements and outcomes for ONG.

Evolution of public transport ticketing

There is a continual and significant change to the transport payment and ticketing landscape. This is driven by new technologies, different approaches to helping customers plan, book and pay for their end-to-end journey, and a general move away from the proprietary card-based systems to standards-based open payments and open platforms that lend themselves to modular procurement.

It has been important for NSW to understand the maturity of cloud-based and Software as a Service (SaaS) solutions to determine to what extent these are viable options for ONG. Understanding the overall landscape has put TfNSW in a good position for its forthcoming ticketing procurement and assisted in validating the ONG roadmap. The following areas were specifically investigated:

Account-based payments

TfNSW was able to determine that account-based ticketing options are now provided by many vendors and are being implemented in an increasing number of jurisdictions. TfNSW was able to validate a number of assumptions and risks relating to the ONG Roadmap.

Open loop EMV payment risks and mitigations

EMV payments have been determined to be an important part of ticketing systems, in terms of capabilities, and are forming a key part of most new ticketing systems implementations. TfNSW was able to determine an increasing level of maturity for concessions-based EMV payments and were able to discuss and understand white label EMV capability in the market. Learnings have helped confirm the ONG Roadmap and will feed into finalisation of detailed requirements at the appropriate time. EMV related payment risks were also discussed.

Mobility as a Service (MaaS) and On Demand

The conference also covered MaaS, the successes and learnings from global trials, and the proposed next steps from other jurisdictions to begin scaling from trial to broad adoption by customers.

European cities have been particularly progressive in MaaS. Their approaches towards open ecosystem and subscription models are very relevant to TfNSW. It is apparent that there is no single approach to MaaS and that this needs to be implemented giving consideration for each jurisdiction’s unique challenges.

During the conference, TfNSW received an award for ‘Best Global MaaS initiative’ for our Opal Plus MaaS trial.

Transport for London Visit

While in London, Mr Clark and Mr Brissett met with TfL to discuss their learnings on similar initiatives, procurement, and solution options. Over the years, TfL and TfNSW have forged close ties.

From the discussions it was evident that both agencies are strategically aligned in terms of how we are using ticketing as an enabler to deliver a single mobility account experience for customers. There was also a renewed commitment to continue to share insights from respective product trials being run, and to continue to collaborate when it comes to product development, to design with the global customer experience in mind.

Communication Strategy

Post travel presentations have been delivered to the Customer Strategy and Technology division and ONG program to inform the detailed requirements for procurement, customer outcomes and further solution development for transport payments systems.

Alignment with Future Transport Strategy

Ticketing, and specifically the ONG program, is a crucial enabler for TfNSW and NSW Government strategies and outcomes. The Transport Ticketing Global event provided valuable insights that are aligned to the core outcomes identified in the Future Transport Strategy, the Future Transport Technology Roadmap, 2021-2024 and the NSW Beyond Digital Strategy.

Table 1 – Alignment with Future Transport

Themes	Strategies	Alignment	Comment to support degree of alignment
Customer focused	Moving to ‘Mobility as a Service’ (MaaS) and beyond	High	In order to develop a MaaS ecosystem, account-based ticketing is required so fare media (tickets) can be tokenised into a customer account, so appropriate fees can be charged and subscription bundles offered.
Accessible Services	A fully accessible network that enables barrier-free travel for all	High	Account-based ticketing allows single view of the customer and is expected to make the concession process easier and more accessible across a customer’s lifecycle.
	Inclusive customer service and information	High	Account-based ticketing will directly improve accessibility through personalised customer interactions by having a single view of the customer.

Table 2 – Alignment with Future Transport Technology Roadmap

Priority Program	Outcome	Alignment	Comment to support degree of alignment
1.Mobility as Service (MaaS) will deliver seamless and personalised journeys across all modes	Moving to 'Mobility as a Service' (MaaS) and beyond	High	Fit-for purpose payments is core to the MaaS priority. In addition, account-based ticketing's single view of the customer will help facilitate a more direct two-way communication of relevant information to customers.
5.Sensors and intelligent systems will create smart transport networks	A fully accessible network that enables barrier-free travel for all	High	Account-based ticketing delivers greater flexibility to harness technological improvements over time with no provider lock-in. 4G and 5G connectivity allows for more near-real time information.

Table 3 - Alignment with the NSW Beyond Digital Strategy

Priority Program	Outcome	Alignment	Comment to support degree of alignment
Design Services based on Customer Journeys	Our customers will not have to repeat information, they will be able to consume services in the way they want, at the time they want, and via the channel they want.	High	Putting the customer at the centre directly correlates to account-based ticketing's single view of the customer, giving customers the option to choose their own token and be charged the correct fare throughout their lifecycle. The modular nature of ONG also allows the potential to link to, or share data with Service NSW as part of the Government Made Easy Program.
Engage and use data insights	We will provide targeted, relevant information and be responsive to customer feedback about our communications and engagement.	High	Account-based ticketing's single view of the customer will facilitate communication of more relevant information to customers.

Disclosure Summary

Date	Organisation/Individual	Purpose of Meeting
6 March	TfL – Mr Andrew Anderson	Share insights and provide updates on each agency's ticketing technology roadmap. Identify opportunities for future product collaboration.
7-8 March	Multiple vendors and jurisdictions in attendance	Better understand ticketing technology capabilities of each respective vendor, limitations, and product roadmaps.

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Next steps





Insights from the trip have been communicated and incorporated into the ONG procurement, product and implementation strategy. They have also been incorporated into the newly drafted Future Transport Technology Strategy.

Expense Summary

Breakdown of all costs incurred	Actual Cost	Budgeted Cost
Airfares – GL 534030	\$4885.20	\$5039.00
Accommodation – GL 534040	\$3007.20	\$2880.90
Taxis, meals and other incidentals	\$1902.90	\$4260.00
Total	\$9,795.30	\$12,179.90

Traveller endorsement

Secretary

Kurt Brissett A/Chief Technology and Innovation Officer CST  Date: 15/05/2023	Executive Director Division  Date: 15/05/2023	Richard Host A/Deputy Secretary CST  Date: 27/5/23	Howard Collins A/Secretary  Date: 05/06/23
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