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Auckland Transport Open Loop Recommendation

For decision: For noting:

Reason for inclusion in closed board meeting session	
1. Please state why this report is being considered in the closed board meeting as opposed to the open board meeting. Please refer to the 'reasons for confidentiality' and provide a direct reference to one of these reasons.	1. To protect commercial interests of both Cubic and Thales/GTS. 2. To protect confidentiality, as a decision needs to be considered carefully and not impact future commercial contract negotiations. 7. To protect the integrity of political and administrative processes re Procurement between Thales/GTS and Cubic.
2. Please provide an estimated date for release of this report.	Not for release.

Ngā tūtohunga / Recommendations

That the Auckland Transport Board (board):

- a) Notes that the proposed solution will use a combination of the Ground Transportation Systems (GTS, formerly known as Thales) and with Cubic/National Ticketing System (NTS) EMV (Europay, MasterCard, Visa – payment cards with a smart chip) processing capability at the backend as the preferred option for the implementation of early EMV Open Loop functionality for Auckland.
- b) Approves operating expenditure, as a Software as a Service (SaaS) offering via Waka Kotahi New Zealand Transport Agency (Waka Kotahi), of the Cubic component for the proposed solution of [REDACTED] over 2022/23 and 2023/24, noting this is subject to draft 2023/24 budget considerations in March 2023. The [REDACTED] will potentially attract a Waka Kotahi funding assistance rate (FAR) as a bring forward of NTS expenditure.
- c) Notes that in order to achieve the combined solution above, the GTS/Thales component, including various back-office components, could be used for the limited EMV transactions should the Cubic/Waka Kotahi back office not be available at the planned time, noting that when the Cubic backend is available that AT will migrate the EMV open loop transaction processing to it.

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Te whakarāpopototanga matua / Executive summary

1. At the end of September 2022, the board approved the implementation of an open loop ticketing capability in order to achieve substantial patronage, customer experience, decongestion, and environmental benefits. The approval was based on a business case prepared by PricewaterhouseCoopers (PwC) using cost and implementation assumptions from a commercial proposal provided by AT's incumbent ticketing provider, GTS/Thales. The board also directed management to consider an alternative option for achieving open loop benefits by bringing forward capability planned for the NTS and delivered by the NTS. The board delegated the decision about which option to take to the Interim Chief Executive, asked that this analysis be completed and a decision made by the end of October 2022.
2. The analysis has now been completed, and following extensive engagement with Waka Kotahi, management in conjunction with Waka Kotahi recommends that AT implements a combined solution using GTS/Thales equipment and some backend functionality required to support those devices and required interfaces, and Cubic/Waka Kotahi functionality for the EMV financial processing.
3. This mixed approach provides a clear transition option when AT migrates fully to Cubic in a few years' time. In the meantime, it de-risks both organisations from a probity perspective, and also from an implementation approach as should the integration take longer AT could still take transactions using Thales as an interim.
4. This also moves AT onto a standard GTS/Thales product which will make support easier to provide from global services as the New Zealand contract winds down which assists with mitigation of this risk.
5. Since November 2022, Waka Kotahi has engaged extensively to influence AT's decision about open loop.

Ngā tuhinga ō mua / Previous deliberations

Date	Report Title	Key Outcomes
September 2022 Board	AT HOP Open Loop Business Case	The board endorsed the objectives and outcomes of the business case for the interim AT HOP open loop capability, planned to be implemented within 12 months for busses initially and to train and ferry modes within 18 months, with funding up to ██████ noting the preferred implementation pathway is to be confirmed by 31 October 2022 and delegated authority to the Interim Chief Executive to decide that pathway.
September 2022 Design and Delivery Committee (committee)	AT HOP Open Loop Business Case	The committee recommended that the board endorse the business case for AT HOP open loop capability. Members noted the criticality of open loop capability as an essential risk mitigant to delivery of NTS as well as the importance to increasing PT patronage.

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May 2022 Board	Project Next – Negotiation Update	The board approved the preparation of the AT HOP open loop business case.
October 2017 Board	AT HOP Open Loop Project	Direction was provided to support the NTS and not to proceed with AT HOP open loop.

Te horopaki me te tīaroaro rautaki / Context and strategic alignment

- The context and strategic alignment of open loop ticketing capability was outlined in the September 2022 board paper and remains unchanged.
- The approach recommended in this paper addresses strategic supplier alignment by continuing to engage with Waka Kotahi to create the opportunity for further optimisation and acceleration of the planned NTS capability. It also provides additional work for AT’s incumbent ticketing supplier, which reduces risk associated with their commercial incentives as the end of their relationship with AT approaches.

Ngā matapakinga me ngā tātaritanga / Discussion and analysis

- In October 2022, workshops were held with Waka Kotahi and its supplier Cubic to gain the information that they needed to develop an open loop (early EMV) proposal for AT. A proposal from Cubic/Waka Kotahi was provided in early November 2022.
- In early November 2022, AT convened a group of ticketing, technical, and programme delivery subject matter experts (SMEs) to evaluate the Waka Kotahi and the GTS/Thales proposals in a series of workshops. Following these workshops, an evaluation report and associated materials were produced which recommended the GTS/Thales option. This recommendation was provided to AT executives on 17 November 2022 and shared with Waka Kotahi at approximately the same time. Since late November, Waka Kotahi has engaged extensively to influence AT’s decision about open loop.
- Following the discussions with Waka Kotahi, AT and Waka Kotahi have jointly determined that the best implementation path in principle is to implement the GTS option while in parallel developing an integrated open loop NTS capability using the planned NTS infrastructure (noting that this work and any adoption of the capability would not represent a transition to NTS by AT). This approach minimises the risk of delay in obtaining the benefits of open loop for AT while building earlier integration of NTS and the associated transition planning. The details of this are still to be determined during detailed design phases.

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Ngā tūraru matua / Key risks and mitigations

Key risk	Key points	Mitigation
Lack of Waka Kotahi co-funding means the full implementation cost must be borne by AT.	Discussions with Waka Kotahi on funding this project are ongoing given the dependency on it for NTS transition.	Explore co-funding potential given the future transition cost savings are significant to the NTS and AT. AT is prepared to fully fund AT HOP open loop as it has a financial payback.
Poor value for money being achieved from implementing open loop.	If actual patronage uplift is lower than anticipated, this will lead to a longer payback period.	Comprehensive communication and marketing package as part of the roll out to help achieve the patronage outcomes. Clear understanding of the benefits delivered to the NTS transition to offset the upfront investment.
Actual implementation costs are higher than the estimated cost of \$23 million.	Technology projects inherently carry scope and implementation risks that can have significant cost impacts.	Two thirds of the cost estimate is based on a commercial offer from GTS/Thales. The remaining one third is primarily based on well-established cost information and includes a 10% contingency.

Ngā ritenga-ā-pūtea me Ngā rauemi / Financial and resource impacts

- AT commissioned PwC to prepare a business case on the open loop proposal. PwC estimated that, over the 10-year period (financial year 2022-2023 to financial year 2031-2032), the financial net present value (NPV) of moving to open loop is between -\$21 million and +\$32 million. The outcome is dependent on the uplift in patronage that will occur as a result of introducing open loop (estimated at between 1% to 3.5%). To break even from a financial perspective (ignoring economic benefits), an increase in patronage of 1.9% is required. The NTS detailed business case assumes an uplift in patronage of between 1.5% to 2.5%.
- Implementing open loop into AT HOP requires ██████████ in capital investment, with most expenditure occurring in financial year 2023-2024. Once implemented, there will be an increase in operating expenditure of ██████████ per annum.
- The payback period for upgrading AT HOP to open loop is dependent on the uplift in patronage that is induced and when the transition to the NTS occurs. However, the expected reduction of ██████████ in the NTS transition costs, means that value for money (from a purely financial perspective) from the investment in open loop is achieved if transition to the NTS occurs in or after financial year 2026-2027, because of the financial payback. It is noted that transition is planned for 2025/26.

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14. Additional costs associated with the parallel development of open loop and the NTS capability with Waka Kotahi has been identified as [REDACTED] for the Cubic component. The GTS/Thales component if any will be identified over the coming months. AT will require additional project resources to support both NTS, and Early EMV which has been budgeted for.
15. Of the [REDACTED], circa [REDACTED] is for EMV capable hardware, [REDACTED] is for Thales software development and the remainder is for other related costs including AT Project costs.

Ngā whaiwhakaaro ō te taiao me te panonitanga o te āhuarangi / Environment and climate change considerations

16. There are direct environmental and climate change impacts to be considered in relation to open loop. Open loop has a key role to play in delivering on the Transport Emissions Reduction Pathway, through enabling faster and easier mode shift to public transport.
17. Giving people a convenient and easy way to pay for public transport without having to pre-plan encourages mode shift from light vehicles to busses, trains, and ferries, easing congestion and lowering emissions.

Ngā whakaaweawe me ngā whakaaro / Impacts and perspectives

Mana whenua

18. There are no direct mana whenua impacts in relation to the business case for AT HOP open loop.

Ngā mema pōti / Elected members

19. At this stage there is no need for consultation with elected members.

Ngā rōpū kei raro i te Kaunihera / Council Controlled Organisations

20. The AT HOP open loop transition will provide valuable learnings and insights for Waka Kotahi and other public transport authorities around New Zealand.

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Ngā kiritaki / Customers

21. AT HOP open loop will provide customers with easier payment options, which is aligned to the AT customer experience blueprint, and will reduce key customer pain points with the current AT HOP solution. Customer benefits associated with introducing open loop capability into AT HOP relate to removing barriers to using public transport and more convenient payment options.

Ngā whaiwhakaaro haumarū me ngā whaiwhakaaro hauora / Health, safety and wellbeing considerations

22. There are no direct Health and Safety impacts to be considered in relation to AT HOP open loop. AT HOP open loop supports the principal of not leaving people behind because they do not have the current payment mechanism, however, so indirectly improves passenger safety.

Ā muri ake nei / Next steps

23. Commence a project to design and implement EMV open loop capability for AT with GTS/Thales which will be managed by AT separately to the NTS project but will be required to work in conjunction with the NTS Project for the Cubic and Waka Kotahi components.
24. Engage with Waka Kotahi to progress the development of an integrated open loop capability, noting that this would not represent a transition under the P2 Agreement to the NTS by AT, but will fall under the NTS Governance for the Cubic and integration components.
25. AT and Waka Kotahi will work together to develop a vendor management plan to communicate the strategic path to all vendors whilst ensuring tactical business continuity.

Te pou whenua tuinga / Document ownership

Submitted by	Chris Creighton Group Manager, Digital and Technology Delivery	
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