

1. Executive Summary

Public transport ticketing and payment systems vary considerably in capability region-by-region across New Zealand. Auckland Transport's (AT) HOP system provides integrated electronic ticketing while Wellington's rail network still uses paper tickets. As such, ticketing systems provide little economy of scale and generally lack the data required to fully optimise network performance.

Current fare collection systems and payment methods present a barrier to public transport adoption. Closed loop systems with stored value cards that were leading-edge only a few years ago have been superseded by account-based ticketing solutions that provide wider accessibility for users, significantly better data for efficient network management, and a foundation to enable transport technology development, such as road tolling and congestion charging, and government policies such as SuperGold card and the proposed Green card.

International trends are towards account-based solutions with open loop payment functionality accessible through EMV-based (Visa/MasterCard) credit/debit cards and mobile devices at lower costs than previous closed loop proprietary systems.

Regional Authorities as Ticketing Service Operators (TSOs) are at different stages of investment and interim bus ticketing solutions have been put in place to align investment across regions in expectation that a national solution will be introduced.

A national solution will require a shared services approach for a centralised ticketing system together with governance, decision-making, procurement and management that secures economies of scale and standardisation while catering for essential local differences in fares and other policies.

A single, national, account-based, open loop, multi-tenanted system has strong alignment with the Government Policy Statement on Land Transport, the New Zealand Disability Strategy and would enable and support government's SuperGold card and Green card initiatives.

The key economic benefits are revenue improvement from increased patronage and improved revenue collection.

Cost reduction and customer convenience have been the catalysts for these benefits in cities like London. Using existing bank-issued cards avoids the need to purchase a transit card, find cash, and queue to purchase tickets or load value; all of which is a boon for casual users and tourists.

Registration of Interest (ROI) respondents fully endorsed account-based ticketing as the future for integrated fares and ticketing.

Cost benefit analysis focuses on two options – Do Minimum and a NEXT National Ticketing Solution (NEXT NTS) implemented on a staged basis for Greater Wellington, Environment Canterbury, Auckland Transport, and the Regional Consortium.

Capital costs for the NTS comprise on-board devices (and assumes no reuse¹) and related equipment and implementation of the ticketing system. On-board devices and equipment, such as card readers and driver consoles, comprise approximately 80% of the capital costs (or about \$126 million). This equipment is required for all electronic system and generally requires replacement every 10 years or so. This is a cost that NZTA and the TSOs will incur over time regardless of which option is selected. The remaining capital costs (about \$30 million) are for supplying, configuring and implementing the central system, establishing the financial services, and establishing the shared services organisation.

Estimated annual steady state operating costs are similar between the NTS and the Do Minimum counterfactual, at about \$45 million. NTS operating costs are driven by financial services transaction costs and day-to-day shared services operations. These costs can be managed. For example, customer behaviour can be influenced to use EMV Visa/MasterCard which have materially lower costs than dedicated EMV transit cards.

This means the technology and financial risks are low – millions of card readers are used in retail and banking systems globally; and ticketing systems are a relatively small proportion of the total cost, and are well proven, being used in major cities around the world.

Although this business case² (Iteration 1) is an early, highly assumptive assessment, it indicates that, over the 15 years from 2022 to 2036, the NEXT NTS will cost about the same as the Do Minimum option and deliver a modern public transport ticketing solution that provides significant additional, qualitative benefits including a basis for government policy initiatives and wider transport technology application.

Table 1 Indicative Cost - Benefit Analysis

	Do Minimum \$m	NTS \$m	Difference \$m
Estimated benefits	73.6	159.1	85.5
Estimated costs	551.7	575.8	24.1
Net estimated economic benefit/-cost	-478.1	-416.7	61.4

Based on this assessment, Project NEXT should continue to the RFP stage for procurement of the ticketing solution.

¹ Reuse of devices and equipment depends on the best option for each Ticketing Service Operator and cannot be determined at this stage. The conservative approach is to assume no re-use.

² This Iteration 1 of the Detailed Business Case has been prepared to ensure there is a reasonable basis to continue to the RFP stage of procurement for a single, national public transport ticketing solution. An Executive Summary summarising the five cases – strategic, economic, commercial, financial and management – will be prepared as part of Iteration 2 of this business case which will incorporate the results of the RFP for a ticketing solution.