

Wider travel choices

through integrated ticketing and real-time information technologies

Increasingly people are demanding a better public transport experience. They want accurate information at the right time, in a range of formats, to a range of devices. They also want easy payment methods, reliable and timely services, and value for money. Delivering a better public transport experience in a changing world is a challenge, but also a great opportunity for innovation.

As a result, information technology is playing a growing role in public transport. This includes websites with information on routes, fares and timetables, smartphone applications and smartcard integrated ticketing. These technologies can help us make public transport more attractive, and they can help regional councils and public transport operators (eg bus companies) improve the planning and operation of services.

These technology solutions are expensive and often out of reach for all but the largest cities. Increasingly, a national approach is being used in New Zealand to minimise high entry costs and improve efficiency. The NZ Transport Agency (NZTA) wants to cut costs by developing and using common standards, and using national shared services available nationwide.

Innovations in public transport

Examples of information technology playing a bigger role in public transport include:

- Websites - providing information on public transport services, fares and timetables.
- Journey-planning software - helping people plan complex journeys.
- Smartcard based integrated ticketing for bus, rail and ferry.
- Integrated fares across different modes of travel.
- Access to timetables through text messaging.
- Real-time information systems - accurately tracking and predicting arrival times at stops, terminals and stations.
- Timetable and route planning software.



How the NZTA plans for technology investment

Investment in information technology can be costly. We coordinate efforts, share best practice, ensure best value for money and help councils make decisions on public transport technology.

We also invest strategically in good value for money technology to improve peoples' public transport experiences. We encourage research, and we are developing a national approach to integrated ticketing and fares.

Over the past five years we've been working with the public transport sector to create a national integrated ticketing interoperability standard (NITIS), a standards-based approach and a national processing system, to help improve the effectiveness of public transport. Auckland was the first step in that journey, with the AT HOP card (a re-usable smart card that stores money) in late 2012.

Making it easier for customers

Integrated ticketing uses prepaid smartcards loaded with money and other information. Smartcards make public transport travel easier for people by reducing boarding time and increasing convenience – so people don't need to carry cash when commuting. Integrated ticketing allows people to change between modes (bus, rail, and ferry) on a single ticket. If people register their smartcard, the balance is protected and can be blocked if the card is lost or stolen.

Smartcards allow operators to collect valuable passenger trip information. This information is used by councils, and us, and is helpful in network planning, service improvements and performance measurement.

Integrated ticketing also allows for integrated fares. This makes public transport a more attractive option, as the best available fare can be paid no matter how many modes of public transport (bus, rail, or ferry) are used in a single journey.

Overseas experiences show integrated ticketing and fares systems increase the use of public transport. This is directly relevant to the government priority of increasing the number of people using public transport, with less taxpayer and ratepayer subsidy.

Delivering customer information in our major cities

Tens of thousands of commuters use buses and trains in our major cities every day. Using real-time information systems means they can save time and frustration by finding out exactly when the next bus is due from bus stop digital displays, smart phones, or the web – before they leave home or work.

Train commuters will also benefit, with plans to extend real time information systems to cover all rail services. These moves are expected to boost public transport use further.

An emerging area of work is joining up public transport information with other modal information (including from traffic operations), to give people active choices. For example, if there is a crash or roadworks, people can actively choose to travel by another transport mode.

Getting the best out of the network

We are also thinking about how to better manage customer and system performance information. Improved information can help get the best out of public transport networks, by allowing councils and operators to better tailor their service schedules and routes.

Personal safety is another important element, with the potential for CCTV and other public transport infrastructure, such as on-line platform monitoring, enabling better safety.