

## Definitions

To avoid misunderstanding in the discussion of Integrated Ticketing, it is useful to distinguish between some of the terms.

### Integrated Ticketing

Integrated Ticketing means that the traveller can use one ticket for different service providers. These service providers can not only be different bus operators, but also operators of different transport modes (bus, train, ferry, cable car). One of the main advantage of integrated ticketing is the ease and convenience for the public transport users, especially in electronic ticketing systems, where they only need one (smart)card.

### Electronic Ticketing and Smartcards

Integrated ticketing systems today usually use electronic ticketing, rather than a paper-based ticket. Electronic ticketing systems often use smartcards (a smartcard is defined as any pocket-sized, usually credit card size, card with embedded integrated circuits which can process information). Modern systems use contactless smartcards, which require only close proximity to an antenna to complete a transaction. This process is called tag-on (at the beginning of a journey)/tag-off (at the end of the journey).

Although many of the integrated ticketing systems can be found in major agglomerations with millions of public transport users, there are examples of smaller systems, such as the Metrocard in Christchurch.

One of the main advantages of a contactless smartcard system is that the transaction can be made very quickly, which saves time when passengers are getting on the bus. This was a main reason for introducing the Metrocard in Christchurch (because of a lack of capacity at the Christchurch bus interchange, Environment Canterbury had to get the boarding times down from 8 to 4 seconds per person, and thus reduce the dwell time at the interchange).

The modern generation of smartcards often can also be used for non-transport related purposes. An e-purse function is very common, but there are also developments towards using smartcards for e.g. usage of public institutions (library, swimming-pool), parking facilities or access to buildings. Examples from around the world show that those extra options often make a business case for a smartcard (more) sustainable.

In the last few years some systems have been introduced with m-tickets (mobile tickets) which can be bought via a mobile phone. It is worth monitoring these developments, because they might lead to cheaper and/or better options for ticketing in the future. At this moment approximately 75% of the NZ households have access to a cell phone (Census 2006).

### Clearing house

In an integrated ticketing system the same ticket can be used for trips with different operators and for journeys with more than one operator. This means that usually a clearing house is needed to assign the revenue which is collected, to the operators: each operator gets the revenue for the part of the journey, the service, it delivered.

There are different models of how the revenue can be assigned, depending on the fare system. In Christchurch for example the system counts how many trips a PT-user made by each different operator and divides the revenue by the number of trips. Each operator gets his share based on the number of trips the PT-user made with it.

A clearing house is not necessary for an integrated ticketing system where operators provide services under gross contracts, because in that case the whole revenue would go to the Transport Authority.

Physically, a clearing house is a central ticketing and card management computer system. Because the clearing house splits up the revenue it is a core part of an integrated ticketing system. It is also a very “sensitive” part of the system, because it collects not only the revenue but also commercial data the operators may not want to share with others. Confidence of all stakeholders in a clearing house is one of the key factors of a successful integrated ticketing system. This confidence is affected by a number of factors, including:

- ownership of the clearing house,
- whether the owner is a profit or non profit organisation,
- the structure of the clearing house board,
- influence of the stakeholders on principle integrated ticketing policies,
- technology choices,
- level of transparency and
- funding.

The policy GWRC has in its Draft Regional Passenger Transport Plan takes these factors into account.

The Wellington region already has a kind of clearing house, called WITL (Wellington Integrated Ticketing Ltd.). WITL is an entity that ‘clears’ the few manual ticket transactions between its shareholders (NZ Bus, Mana, Cityline, Newlands). A review of the WITL Shareholders Agreement, which was undertaken by Solicitors Phillips Fox on behalf of the Regional Council in October 2005 concluded that the existing agreement is “inadequate for a long term sophisticated ITS, and cannot be relied upon by GW to achieve its long term IT and related public transport goals.” Phillips Fox suggested a council-controlled organisation or a council-controlled trading organisation as a clearing house.

## Integrated Fares

In any discussion on integrated ticketing the fare structure plays an important role. Currently there are no integrated fares in the Wellington region. Integrated fares means a system in which a journey involving several trips, regardless of mode or operator, is ‘integrated’ into a single fare for the journey without any transfer penalties.

For the Wellington region this would mean that a public transport user could pay one fare for a trip from for example Upper Hutt to Island Bay, using a Cityline bus in Upper Hutt to get to the station, the Tranz Metro train to get to Wellington a Stagecoach bus to get to Island Bay.

Whereas it is (theoretically) possible to have an integrated ticketing system without fare integration, it is for practical reasons almost impossible to have integrated fares without integrated ticketing.

From the point of view of the PT user it makes more sense to develop an integrated ticketing system in a situation that also has integrated fares, although there are integrated ticketing systems without integrated fares.

### Open Standard

Open standards exist in situations where various solution components including business, system and technical interfaces are openly and freely available and are published.

In relation to integrated ticketing, an open system allows all potential operators or suppliers access to the system, regardless of maker of the system; the system facilitates interoperability and data exchange among different products or services. An open standard also means that an operator or transport operator is not locked into a contract with the supplier which set up the integrated ticketing system, but that a switch to another supplier is possible.