greater WELLINGTON
REGIONAL COUNCIL
Te Pane Matua Taiao

Report 11.263
Date 15 June 2011
File TD/06/01/03

Committee Economic Wellbeing Committee
Author David Lewry, Major Projects Team Leader

Real Time Information (RTI) Project Update

1. Purpose

To provide the Committee with an update on the implementation of the Real Time Information (RTI) project.

2. Significance of the decision

The matters for decision in this report **do not** trigger the significance policy of the Council or otherwise trigger section 76(3)(b) of the Local Government Act 2002.

3. Implementation progress

3.1 Live launch

The first phase of the RTI project was launched at Lambton interchange on 31 March. This phase includes the public availability of RTI for all Go Wellington bus services, on the Metlink website and on its mobile counterpart. The launch also marked the installation of the first display signs, including the indoor summary screen and display signs at individual platforms at the interchange.

3.2 System performance

Two areas of 'teething' problems associated with the expansion of the project into its first phase and affecting the overall performance of the RTI system, have become apparent since the public launch. One concerns the operational route data used by the system, and the other is a system software issue. These have prevented the RTI system from tracking some journeys, and to revert to displaying scheduled rather than predicted departure times for those journeys.

The accuracy of departure time predictions has not been compromised, and continues to meet prescribed standards.

3.2.1 Operational route data

The RTI system makes use of various data describing the operation of specific bus routes. Some minor inconsistencies have been picked

up and have been relatively straightforward to resolve, and differences in how the RTI system handles the data (compared with Metlink systems, for example), have been made consistent. A constructive joint programme with the bus operator and the RTI system supplier has been established, and has been progressively identifying and solving specific data issues.

3.2.2 Software Issues

A more fundamental system performance issue became apparent soon after the launch, although the extent of its impact was masked by the route data issues noted above. The problem affected the reliability of bus communication with the RTI system, which also meant that resolved route data issues could not be reliably communicated to buses.

The underlying cause of this communications issue has been traced to an original software configuration of on-bus equipment supplied for the wider system roll-out. A clear undertaking for its utmost priority for resolution was received from the system supplier, and at the time of writing manual rectification work is almost complete. A verbal report on resolution of the issue will be provided to the Committee at its meeting.

Since the above issues are firstly the consequence of expanding the system, and secondly of an introduced problem, neither was present in the Pilot phase of the project.

Despite these shortcomings, customer acceptance of RTI has been good. Feedback has been largely positive and understanding of the need to get things completely right.

Several RTI users have taken it upon themselves to provide constructive monitoring and reporting of instances where system performance has been affected.

The RTI system is generating extensive and highly useful monitoring data on the day-to-day operation of bus services. This data has already been used to identify scheduling issues arising from early running of some services, and work is underway on timetable adjustments to optimise reliability.

3.3 Metlink website

Despite prior testing, the launch of the Live Departures (RTI) functionality on the Metlink website contributed to some initial instability of the website itself. This was exacerbated by the demands made on the website by the number of users of Live Departures.

A series of measures were put in place to successfully resolve the issue, and to insure against future recurrences as loadings inevitably increase through usage.

Analysis of how users navigate the Metlink website to access RTI is ongoing.

3.4 Display signs

The summary display sign at Lambton interchange has been relocated to an internal wall to reduce reflection and glare in harsh lighting conditions. Further improvement will be made with an anti-glare film, and the legibility of the information will be further improved with a revised format, larger font sizes and greater colour contrast.

The three platform display signs are scheduled to be changed for the planned 6-line (rather than 3-line) version of the same sign, which was not available at the time of the launch.

4. Next steps

4.1 Extension of RTI to Valley Flyer services

To contain the issues affecting system performance until they are conclusively resolved, it has been decided to defer the extension of RTI to Valley Flyer services, from the anticipated date of the end of May.

The alternative of pressing ahead and further propagating the outstanding issues carries some risk of undermining confidence in the system. This was considered less desirable than making a fully robust, albeit slightly later deployment.

All Valley Flyer buses have been fitted with RTI equipment, and the requisite operational data has been prepared for use. This means that Valley Flyer services can be brought live with RTI at short notice once the system performance issues are overcome.

4.2 Extension to Mana Newlands bus services

Discussions with the operator continue to progress positively. Despite a different technical solution to enable interface of RTI equipment with existing electronic ticketing equipment, it is expected that extension of RTI to Mana Newlands bus services will take place within the projected timescale (from October 2011).

4.3 Street Display sign installation schedule

Site preparations, including installation of the standard RTI pole (for ‘flag’ type street display signs) have been completed at 20 locations in Kilbirnie, Miramar, Karori and Kelburn. This initial group has provided essential experience for the installation contractor, and progression to further groups of sites is expected to follow closely.

The prototype ‘totem’ display destined for the Golden Mile was evaluated late last month. A minor amendment (increasing the thickness of the protective screen) has been incorporated, and the totem will be installed at the central Manners Street/Cuba Street bus stop during June.

The totem display features flat screens providing up to 20 lines of RTI information, making it suitable for the busiest bus stops. It also displays the

current time, and has the ability to display network status messages. Static timetable information is also included.

A further 14 major bus stops on the Golden Mile will receive totem displays. These will displace remaining Metlink 'pylon' structures in Courtenay Place and Lambton Quay.

The display sign installation schedule accommodates restrictions which will affect street works in designated areas of Wellington urban area prior to and during the Rugby World Cup.

4.4 Traffic signal priority

Development of the interface with the Wellington City Council-operated urban traffic control system (known as SCATS) is close to completion, and testing is expected to take place in July. The interface will enable bus priority requests to be relayed to the SCATS system, ensuring that wherever possible, late-running buses can be given suitable priority at signal-controlled intersections.

5. RTPI for rail

The requirements and scope of the real time for rail sub-project have been reviewed and are being developed in further detail, following discussion with KiwiRail on a series of jointly developed business requirements.

At the time when the original business case for the RTI project was developed, the former ONTRACK programme to equip trains with 'KUPE' positioning equipment was expected to extend to the passenger fleet, and to provide a suitable basis for the requirements of the RTI system. The RTI tender requirement was set for the development of an interface with rail operational management systems, for the acquisition of train position and service data.

The KUPE programme has not extended to the Ganz Mavag fleet of Electric Multiple Units (EMUs), although Matangi EMUs are equipped with KUPE positioning equipment. It is therefore necessary either to equip the Ganz Mavag fleet, or to adopt an alternative train positioning solution.

Options for means of carrying out the critical matching of train position information with service information (to enable the system to know which train is providing which service) remain under evaluation.

It is therefore anticipated that equipment costs and KiwiRail project management resource costs may be incurred beyond the original scope of the RTI project, and require approval for funding from the project contingency. Further detail on this requirement will be reported when it is available.

Close alignment with Auckland Transport is being maintained, with the objective of re-using aspects of the work being carried out in connection with extension of RTI to rail in Auckland.

6. Communication

Communications will continue for the live introduction and progressive roll-out of RTI, initially with specific reference to the extension to Valley Flyer bus services. The Communication Plan will be further developed as the dates for subsequent implementation milestones are defined.

7. Finance

The project continues within budget. $2.4 million of expenditure that was expected to occur in 2010/11 has been re-budgeted in the 2011/12 year to reflect current expectations of when that expenditure will occur. This change reflects the delay to the supply of equipment late in 2010 and the delay to roll-out as described earlier in this report.

8. Recommendations

That the Committee:

1. ***Receives** the report.*

2. ***Notes** the content of the report.*

Report prepared by:	Report approved by:	Report approved by:
David Lewry Major Projects Team Leader	Angus Gabara Manager, Rail Projects	Wayne Hastie General Manager, Public Transport