

**BRISTOL CITY COUNCIL
CABINET**

8 February 2007

**Report of: Director of Planning, Transport and Sustainable
Development**

Title: Expansion of the Bristol Real Time Information System

Ward: Citywide

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RECOMMENDATION

It is recommended that:

- the remainder of the First Bristol bus fleet comprising some 250 vehicles be installed with Real Time Passenger Information (RTPI) equipment.

Summary

This report outlines proposals to install RTPI equipment in the First Bristol bus fleet. The proposals are designed to substantially improve the reliability of bus services in Bristol, the performance of the RTPI system, and the dissemination of information to passengers and potential passengers via on street displays and the internet.

The significant issues in the report are:

- The proposals are a key component of the Joint Local Transport Plan (JLTP), and also go a long way to achieving the economic and environmental aims and objectives in the Corporate Plan.
- The principles agreed with First Bristol on contributing to the cost of maintaining the equipment will also apply to the Greater Bristol Bus Network (GBBN).
- The proposals provide benefits to passengers, Bristol City Council and First Bristol. These benefits are: improved reliability of bus services through bus priority at traffic signals and actively managing the network;

improved dissemination of information to bus passengers via the internet and bus stop displays; improved customer service by providing additional information to passengers on emerging problems, and being able to answer passenger complaints; improved reliability of the system by having every bus equipped.

- The proposals provide the platform from which further system expansion and improvement can take place. Best practice from around the country has demonstrated that installing a bus company's entire fleet is necessary to get the most out of the system in terms of service reliability, performance, and dissemination of information.

1 Policy

1.1 The proposals to equip the First Bristol fleet builds on the policies for RTPI contained within the JLTP and Bus Strategy for the GBBN. The JLTP aims to tackle congestion through promoting the use of alternatives to the private car, encourage more sustainable patterns of travel behaviour, and manage the demand for travel by the private car. The Bus Action Plan (Bus Strategy) outlines investment in RTPI as part of creating further showcase bus routes, and also improve individual bus stops through the provision of RTPI, and enhancing the provision of information including the installation of RTPI displays and availability over the Internet and potentially on mobile phones.

1.2 RTPI is also relevant to the aims and objectives set out in the Corporate Plan:

- A thriving economy- increased business investment and growth will depend on the city having an efficient transport system. The council will give priority to making improvements in Bristol's transport infrastructure.
- High Quality Environment- priority will be given to making it easier and safer for people to get around the city. Surveys show that Bristol citizens see traffic congestion, poor public transport and air pollution as amongst the worst things about living in Bristol. A good transport system is important in achieving the city's ambitions for a thriving economy.

2. Consultation

Internal

2.1 N/A

External

2.2 First Bristol are very supportive of the proposals, and have agreed

to pay the annual revenue cost for the maintenance of the on bus equipment for a period of six years, including the one year warranty period. After six years, the Council and First will renegotiate with ACIS on a new maintenance contract, to be paid for by First.

- 2.3 The Council has been working with the Royal National Institute for the Blind (RNIB) promoting the RTPI audio facility to their members for the last eighteen months. In 2006 the RNIB produced a report reviewing RTPI schemes around the country and reported positively about the Bristol scheme.
- 2.4 The local RNIB office is very supportive of the proposals, and state that one of the key issues for blind, partially sighted and deafblind people is consistency. Therefore, the more bus routes/stops that are enabled with RTPI with audio, the more people will use it on a regular basis. Equipping the remainder of the fleet is an essential pre-requisite for making more routes RTPI enabled and having audio at additional bus stops.

3. Context

- 3.1 The BusNet RTPI system was purchased from and installed by ACIS Ltd. through the ELGAR project after a competitive tender in 1996/1997. The system uses satellite global positioning system (GPS) to track the location of buses. Buses send updates about their location to a central system, which then transmits this data for display at bus stops and other off street locations. Thus a passenger can see, in near real time, the progress of buses approaching their required stop.
- 3.2 The system has grown and now encompasses over 100 on-street displays, 90 vehicles, and over 40 traffic light priority junctions, across twelve routes within Bristol. The other main stakeholders of the system are First in Bristol, South Gloucestershire Council, and Bristol International Airport.
- 3.3 The system will expand further in 2007 with the delivery of 38 new buses for the A420/A431 Showcase Corridor. A new radio system was recently installed to facilitate this expansion, and future expansion, by providing increased capacity and wider coverage. Beyond the A420/A431 Showcase Corridor, the system will expand significantly as part of the GBBN.
- 3.4 To date, the Bristol RTPI system has expanded on a route by route basis. Best practice from around the country has demonstrated that installing a bus company's entire fleet is the best strategy for getting the most out of the system in terms of service reliability, performance, and dissemination of information.
- 3.5 South Gloucestershire are also presently in negotiations with ACIS to ensure that all buses operating from the Marlborough Street Bus Station

to South Gloucestershire are equipped with the same system.

4. Proposal

- 4.1 The proposal comprises the installation of RTPI equipment to 250 First Bristol buses. The 'equipment' being defined as the On Bus Computer, Radio, Electronic Ticket Machine (ETM) Link and Traffic Light Priority Transmitter. This equipment is the minimum necessary for the system to work provide real time information & bus priority at traffic signals.
- 4.2 The equipment will be purchased from ACIS, Bristol City Council's RTPI supplier who will also install the equipment to the buses. ACIS are the only company who can provide the equipment to the required specification and ensure compatibility with the current system. A close working relationship will be required between ACIS, Bristol City Council and First Bristol, to programme when the installations will take place. It is anticipated the installation will be completed during the summer of 2007 with the system fully configured and working by Autumn 2007.
- 4.3 There will be a contract between Bristol City Council and ACIS for the supply and installation of the on-bus equipment, and a separate contract between Bristol City Council and First formalising the maintenance arrangements. The Council will also establish a Contractual Agreement with First in Bristol to ensure the benefits of the system are delivered.
- 4.4 The on bus equipment will also be offered to operators of other commercial local services in Bristol on the same terms and conditions (adjusted for inflation if necessary).

The proposals are designed to address the following key issues:

- 4.5 **(a) Reliability of bus services.** The data gathered from the buses can be used to improve the reliability of buses, scheduling and fleet management. Using system monitoring software, operatives in the bus depot's control room can view in real time the location of buses and actively manage the operations to minimise the impact of any emerging problems.
- 4.6 The data gathered can be used to help the operator make decisions on scheduling or if additional buses may be required as a result of changes to the timetables. In addition, the system monitoring software and the data gathered from the buses will allow for more thorough monitoring of the Council's supported services, resulting in potentially an improvement in their reliability.
- 4.7 The system can also be linked to the Control Room in Wilder House where staff from both the Council and First could use the system to pro-

actively manage the network.

- 4.8 **(b) Better able to answer passenger complaints, and generally better for customer service.** In terms of customer service, the system provides passengers with greater certainty about when their bus will arrive; and, in the event of a serious incident affecting the network for example, messages can be sent to on-street displays providing additional information to passengers.
- 4.9 The system monitoring software provides the functionality to replay historical data, thus in the event of a complaint about a late bus for example, it is possible to look back and see exactly what that bus was doing.
- 4.10 **(c) Widen dissemination of RTPI over internet.** There are 1600 bus stops in Bristol, and this proposal will allow for every bus stop to have a virtual display, allowing people with an internet connection to view RTPI. This will represent a significant step change in how we provide RTPI by achieving saturation coverage across the city and widening access to RTPI. A virtual display is what is displayed on the screen when the user clicks on their bus stop; it shows exactly the same information that is displayed on an RTPI display at a bus stop.
- 4.11 This strategy has been employed elsewhere such as South Yorkshire PTE and Oxfordshire County Council. The Oxfordshire system is a very good example where their web-site received 20 million hits in the last 12 months. The scale of the Oxford system is 900 virtual displays, with 204 buses fitted and around 40 routes covered.
- 4.12 **(d) Reliability of RTPI system will be improved.** In order for the RTPI system to work in terms of predictions at bus stops, bus priority, and to obtain accurate data for fleet management and scheduling; only RTPI equipped buses can operate on RTPI routes. Equipping the entire fleet completely removes the risk of a non RTPI equipped bus operating on an RTPI route. First's financial stake in the system should also give them an added incentive to ensure that their staff follow necessary procedures such as entering the correct journey numbers.

5. Other Options Considered

- 5.1 As a result of intense negotiations regarding the cost of the RTPI system for the GBBN in order to satisfy Best Value requirements, the cost of the equipment reduced substantially. As a result of these negotiations, and having also taken independent third party advice, the GBBN partners are satisfied that Best Value has been demonstrated. The Council has benefited from the reductions and this is reflected in the cost of the proposal outlined in this report, and also the cost of the equipment to be

ordered for the A420/A431 Showcase Corridor.

6. Risk Assessment

- 6.1 A risk assessment has been completed for this project and a summary of the major risks is detailed below.
- 6.2 The main risks of not agreeing to this course of action are as follows:-
- (a) The Council does not achieve the aims and objectives set out in the JLTP and the Corporate Plan.
- 6.3 The main risks of agreeing to this course of action are as follows:-
- (a) Bankruptcy of contractor.
 - (b) Redeployment of buses elsewhere in the country with Bristol RTPI equipment still on board.
 - (c) The system becomes obsolete.
 - (d) Other operators wanting the equipment.
- 6.4 The action taken to mitigate these risks is:-
- (a) Ensure there is plan in place for recovery of costs if installation is not completed by the contractor.
 - (b) Set up a Contractual Agreement between Bristol City Council and First to ensure that the equipment remains within Bristol City Council's ownership.
 - (c) The equipment will conform to the latest RTIG (Real Time Information Group) standards.
 - (d) Ensure that other operators fleet sizes are fully understood so additional costs can be budgeted for.

7. Equalities Impact Assessment

- 7.1 An Initial Equalities Impact Assessment has been completed and is attached as Appendix A.
- 7.2 The equal opportunities in service delivery policy statement, contained within The Equalities Policy, states that all adults, young people and children from equalities groups have the right to use the services that we provide. We will budget for the costs of full access to children, young people and adults from equalities groups including transport.
- 7.3 Under the amendments to the Disability Discrimination Act, it is proposed that public authorities will have a general duty to promote disability equality by having due regard to the need to eliminate unlawful

discrimination and harassment and promote equality of opportunity for disabled people.

- 7.4 There will also be specific duties around a published Disability Equality Scheme (DES). The proposal links in with the recommendations of the DES, namely, for disabled people to be able to access information that is given out in Bristol, and to have a better service on buses.

Legal and Resource Implications

Legal The matter is being procured in accordance with EU Public Contract Regulations 2006 Regulation 14, by way of the negotiated procedure without prior publication of contract notice, and in accordance with Bristol City Council's own Procurement Regulations paragraph 16.1.7, on the basis that Public Transport have advised that Real Time Information Equipment obtained from a supplier other than ACIS, which supplied the existing RTI Infrastructure, would oblige the Council to require RTI Infrastructure having different technical characteristics which would result in incompatibility between the existing infrastructure and that to be purchased under the contract.

Legal advice given by: Dave Cox, Senior Contracts Solicitor.

Financial

Revenue There will be additional bus maintenance costs of £55,451 per annum which First Bristol have agreed to pay.

Capital The costs of supply and installation of this equipment is £574,504 and will be funded as part of the Bus Partnerships element of the 2007/2008 Capital Programme.

Terms will be set out for the reimbursement of costs to Bristol City Council if equipment is transferred to new buses as part of the GBBN.

Financial advice given by: Mike Harding, Business Planning and Financial Services Manager, PTSD

Land None outside the ownership of the Highway Authority

Personnel None

Appendices: Appendix A - Initial Equalities Impact Assessment

ACCESS TO INFORMATION

Background Papers:

- **A review of current public bus initiatives: Methods of delivering timetables and real time information**
- **RNIB Innovation Unit Evaluation Report May 2006**

- **Joint Local Transport Plan**

- **Corporate Plan**

Initial Equalities Impact Assessment Table

	Baseline data and research	Differential impact?	How will impact be addressed?	Consultation	Further changes and monitoring
Women and men	2001 Census T&T Best Value Stakeholder responses	Existing information shortfall for some bus services/stops Perceived personal safety risk at stops Access to job opportunities and services for those without access to a private car	Real Time Information displays at stops. Real Time Information will provide a greater sense of certainty of when a bus will arrive. In addition, improved reliability should reduce perceived safety risk. Better public transport provision will substantially improve accessibility for those unable to use a private car for their journey.	<u>Future</u> Women's Forum	A partial or full impact assessment will be completed
Racial Groups	2001 Census T&T Best Value Stakeholder responses	Existing information shortfall for some bus services/stops Perceived personal safety risk at stops	Real Time Information displays at stops. Real Time Information will provide a greater sense of certainty of when a bus will arrive. In addition, improved reliability should reduce perceived safety risk.	<u>Future</u> Race Forum	A partial or full impact assessment will be completed

	Baseline data and research	Differential impact?	How will impact be addressed?	Consultation	Further changes and monitoring
Disabled people	2001 Census T&T Best Value Stakeholder responses	Information not available in accessible formats	Real Time Information displays at stops with audio, and potentially audio announcements on buses. Information available over the internet and potentially via mobile phones.	<u>Current</u> RNIB <u>Future</u> Disability Equality Forum	A partial or full impact assessment will be completed
LGB	T&T Best Value Stakeholder responses	Perceived personal safety risk at stops	Real Time Information will provide a greater sense of certainty of when a bus will arrive. In addition, improved reliability should reduce perceived safety risk.	<u>Future</u> Lesbian, Gay and Bisexual Forum	A partial or full impact assessment will be completed
Young People	2001 Census T&T Best Value Stakeholder responses	Perceived personal safety risk at stops	Real Time Information will provide a greater sense of certainty of when a bus will arrive. In addition, improved reliability should reduce perceived safety risk.	<u>Future</u> City of Bristol Youth Forum	A partial or full impact assessment will be completed
Older People	2001 Census T&T Best Value Stakeholder responses	Existing information shortfall for some bus services/stops Perceived personal safety risk at stops	Real Time Information displays at stops. Real Time Information will provide a greater sense of certainty of when a bus will arrive. In addition, improved reliability should reduce perceived safety risk.	<u>Future</u> Older People's Forum	A partial or full impact assessment will be completed