RTIG

UK Real Time Information Group

RTIG Monitoring: Enablers and Blockers to rollout of RTI Systems

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1 Introduction

1.1 About this document

1.1.1 This document has been produced for the Real Time Information Group (RTIG) by Centaur Consulting. It is the deliverable for RTIG Government Task 1.3: Assessment of enablers/blockers.

1.2 Background

1.2.1 The principal aim of RTIG is to "enable real time technology to deliver better public transport services and information to the public about such services at an affordable price"[1]. In order to help RTIG achieve these goals an assessment of 'enablers and blockers' affecting those implementing RTI systems has been performed. The information compiled in this report will assist RTIG in promoting RTI and help it to identify deliverables that will assist its Members in successfully delivering systems.

1.3 Document status

1.3.1 This document is a final version.

[1] Real Time Information Group: National RTPI Strategy

2 Approach

2.1 Process

2.1.1 The enablers and blockers outlined and assessed in this report resulted from interviews with selected RTIG Members. These were:

- local authorities with small RTI systems (less than 100 buses):
  - Chris Niblock – Derby City Council;
  - Roland Clausen-Thue – Wokingham District Council;
- local authorities with medium size RTI systems (between 100-1000 buses):
  - Sue Westwood – Brighton and Hove;
  - Paul Walker – Wiltshire;
- local authorities with large RTI systems (more than 1000 buses):
  - Tim Rivett – SYPTE;
  - Peter Ratcliff – Metro;
- RTI system suppliers:
  - Kevin Gilday – AIM;
  - Brian Higbee – Siemens.
- bus operators:
  - Roy Jeffries – Stagecoach;
  - Colin Newbury – Arriva;
  - Matthew Bradley – Go Ahead.

2.2 Defining enablers and blockers

2.2.1 Enablers and blockers are actions that promote or hinder the uptake of RTI systems across the UK. For example, an enabler might be the political and financial support of RTI by central government. An illustration of a blocker could be difficulties in data management.

2.2.2 This report aims to capture enablers and blockers that have had a significant impact on projects, rather than simply describe issues that have produced minor delays or inconveniences to those implementing an RTI system.

2.2.3 In the main, enablers occur prior to the implementation of a system and assist the project getting off the ground. Blockers generally hinder the project once it has been initiated. This is not always the case. For example a lack of business case could be a pre-project blocker for some stakeholders.

2.3 Enabling versus blocking

2.3.1 Many of the issues raised within this report have affected implementations differently. For example, an authority that has developed strong partnerships with local bus operators may perceive partnerships as an enabler; however, authorities with poor links to bus operators may describe this as a blocker.

2.3.2 In assisting RTIG in identifying areas of future work, the categorisation of these actions as an enabler or a blocker is less important than highlighting the point and identifying the importance of that area, as in this case of strengthening local authority and bus operator partnerships.

2.4 Impact of enablers and blockers on the stakeholders involved in RTI

2.4.1 There are many stakeholders which have important roles to play in the successful implementation of any RTI system. In the main, this report focuses on the practicalities of implementation and therefore this report concentrates on the perspectives of the three most important stakeholders in this area:

- location authorities;
- bus operators;
- suppliers of RTI equipment.

2.4.2 In many circumstances these different stakeholders are affected by different enablers and blockers. However, some groups of stakeholders may experience similar enablers and blockers. Where similar enablers and blockers have been recorded by different stakeholders efforts have been made to outline any differences in the underlying reasons behind the point raised.

2.4.3 During the course of interviews, some stakeholders raised points that enable or block the use of RTI systems by other stakeholders. For example, local authorities and bus operators frequently raised difficulties their suppliers have experienced during installation. In this case these have been documented in the section which covers the most relevant stakeholder.

3 Local authority enablers and blockers

3.1 Role

3.1.1 The majority of RTI systems have been instigated by local authorities and their primary role as stakeholder is to ensure that public needs are met. Therefore, local authority focus is often on delivery to the public and setting in place the backing to produce these goals.

3.1.2 The main concerns for local authority officers are:

- delivering information to the public;
- improving bus services for the public;
- obtaining financial and political support for projects.

3.1.3 A successful RTI system for a local authority is one that:

- is implemented on time and to budget;
- meets public requirements by offering accurate predictions.

3.2 Enablers

Support within the local authority

3.2.1 Having the support of Executive Members within a local authority greatly assists authority officers in obtaining wider backing and funding for projects. Where the level of support has declined over the project lifecycle, implementations have generally suffered.

Partnerships between local authorities and bus operators

3.2.2 Strong partnerships play a key role in any successful RTI implementation. A partnership where both bus operators and local authorities have a clear understanding of each other's needs is a positive enabler as this smoothes implementation processes.

Central government political backing

3.2.3 Central government has shown public support for RTI on buses and has made commitments to making bus a more attractive travel option. This political backing assists local authorities in developing a business case at local level.

Central government financial support

3.2.4 Central government support has been backed up financially, both through LTP funding and the release of £20million through the Transport Direct programme. A number of authorities have stated that without this direct capital source their system would not have been viable.

Collaborating with neighbouring local authorities

3.2.5 Local authorities often find it beneficial working with neighbouring authorities on projects as this approach also facilitates the sharing of resource and skills.

3.3 Blockers

Installing at-stop signs at shelters

3.3.1 Difficulties have commonly arisen when installing shelters at-stops. Two separate problems have been encountered in this area, namely:

- obtaining electricity supplies to shelters;
- ensuring that the shelter to be fitted is capable of housing an at-stop sign.

3.3.2 This has prevented parts of systems coming on-line.

Management of data

3.3.3 Successfully developing data sets and inputting this data into RTI systems has proved problematic across most authorities. This is in part due to multiple data sources and the lack of a stable data exchange standard. If data is not inputted correctly into the system, buses will not be able to be monitored and therefore the system will not function correctly.

Staffing and skills shortages within local authorities

3.3.4 In the field of RTI and ITS more generally, local authorities often experience difficulties recruiting suitably skilled staff. This has led to difficulties in stretched resources.

4 Bus Operator enablers and blockers

4.1 Role

4.1.1 The role of a bus operator in a partnership is to improve operational management of the bus services and to ensure that commercial viability is maintained. They often focus on:

- increasing revenue streams through improved services;
- improving operational methods;
- meeting Traffic Commissioner targets.

4.1.2 A successful RTI system for a bus operator is one that:

- delivers the desired functionality to improve fleet management;
- encourages passengers to use the service;
- simplifies tasks for the driver.

4.2 Enablers

Partnerships between local authorities and bus operators

4.2.1 When questioned, bus operators found that their partnerships with local authorities had, in the main, been positive. A joint approach to project design and implementation enables a system to be procured that meets all stakeholder requirements.

4.3 Blockers

Management of data

4.3.1 Bus operators have experienced significant issues surrounding the inputting of data into RTI systems. Poor data interfacing from the scheduling system can mean that large numbers of their bus fleet are not represented on the system at any one time making it impractical for depot managers to use the system for fleet management. Also exchanging data with partners can be problematic if dissimilar exchange standards are used (eg different variants of TransXChange). This has a major impact on the operation and running of systems and therefore represents a serious blocker for bus operators.

Lack of Business Case for RTI

4.3.2 A lack of a clear business case is a blocker identified by a number of bus operators who will need any capital investment to be recovered over time. It was noted that business cases in this area are often hard to assess, as RTI is often implemented alongside a package of other improvements, such as new buses.

5 Supplier enablers and blockers

5.1 Role

5.1.1 The role of RTI suppliers within the partnership is to install and maintain the RTI system. Their aims include:

- reducing risk to implementation;
- improving installation methodology;
- strengthening their position in the marketplace.

5.1.2 A successful RTI system for a supplier is one that:

- satisfies customers requirements;
- is easy to implement and maintain;
- profitable to implement.

5.2 Blockers

Poor customers understanding of RTI systems

5.2.1 Suppliers often encounter customers of RTI systems who show a lack of comprehension of requirements. This lack of understanding is often reflected in confusing or inappropriate tender documentation and continues as the project progresses.

Implementation of Electronic Ticketing Machine links

5.2.2 Suppliers have found that installation of bi-directional links between on-bus ETMs and the RTI system have been difficult to implement successfully, with significant delays incurred as a result. This issue has been raised generically across the spectrum of ETM and RTI suppliers.

Management of data

5.2.3 Suppliers often experience difficulties in obtaining suitably rich and comprehensive data sets from bus operators and local authorities. The issue can be compounded if data is received from multiple sources that use different methods to maintain and manage data. Lack of correct data can result in the RTI system not functioning properly.

Logistic of on-bus installations

5.2.4 Installing complex equipment in large fleets of buses can take time and some projects have experienced problems with delays. Fleets are often composed of different types of bus and even where similar models are used internal wiring may differ from bus to bus.

6 Analysis of enablers and blockers

6.1 Types of enablers and blockers

6.1.1 Analysis of the enablers and blockers raised by the various stakeholders involved in implementation of RTI systems shows that they fall into four distinct areas, namely:

- **Political:** relates to enablers and blockers which promote or hinder backing for projects. This may include corporate strategy to RTI or the support within a local authority for RTI.
- **Management:** relates to enablers and blockers that have affected the degree that local authorities, bus operators and suppliers have worked successfully together to deliver RTI systems.
- **Financial:** relates to monetary enablers and blockers within authorities, bus operators and suppliers.
- **Technical:** relates to implementation enablers and blockers that have affected delivery of RTI systems. These include data, installations and wider technical points.

6.1.2 How the various enablers and blockers fall into these various categories is detailed below in Table 6-1. Green areas indicate enablers and red areas highlight blockers identified by different stakeholders.

	Local Authority	Bus Operator	RTI Supplier
Political	• Support within LA • Central government backing		
Management	• Partnerships between LAs and bus ops • Collaboration with neighbouring authorities	• Partnerships between LAs and bus ops	
	• Staff shortages		• Customers understanding of RTI systems
Financial	• Central government support		
		• Business Case for RTI	
Technical			
	• Shelter installations • Management of data	• Management of data	• ETM links • On-bus installations • Management of data

Table 6-1: Enablers and blockers

6.2 Recommended actions

6.2.1 The table above shows a number of issues that RTIG may wish to address in order to assist its Members. Some of these RTIG has already examined, such as bus operator and local authority partnerships. Below are a number of possible activities for RTIG to consider for the issues that RTIG may be able to help the industry address.

6.3 Political

Central government backing

6.3.1 To date RTI has received strong support from DfT, SE and WAG through public support and funding. In order for RTIG Members to continue to obtain the benefits of central support for their projects at local level, RTIG must continue to raise the profile and highlight the benefits of RTI to government. If this is not maintained then the RTI sector risks losing long-term political and funding support and therefore this activity remains urgent.

- ***Recommended Action:*** *RTIG to continue work with central government to ensure continued political support.*

Support within Local authorities

6.3.2 Local authority officers require support for their RTI project from within their authority. RTIG can assist them through the production of guidelines on cost benefit analysis and the evaluation of systems. This will enable local authority officers to present a robust case for RTI. It is therefore recommended that RTIG continues to develop guidelines in these areas as a matter of continued importance.

- ***Recommended Action:*** *RTIG to continue to develop cost benefit and evaluation guidelines for local authorities*

Local authority and bus operator understanding of RTI systems

6.3.3 Suppliers of RTI systems have commented that some of their customers often do not have a strong understanding of RTI systems. It is therefore recommended that RTIG continues its series of workshops for RTI implementers as a matter of continued importance.

- ***Recommended Action:*** *RTIG to continue its workshops for local authorities and bus operators.*

6.4 Management

Staffing and skills shortages within local authorities

6.4.1 In the field of RTI and ITS more generally, local authorities often experience difficulties recruiting suitably skilled staff. This has led to difficulties in stretched resources. It is therefore recommended that RTIG assists local authorities by identifying the skill-set needed by those involved in RTI implementation.

6.4.2 RTIG could also consider offering services from experienced members through a simple point of contact for advice, mentoring schemes or through a tender review service. On a more basic level, RTIG could publish a checklist of items to be considered during a tender.

6.4.3 This is a long-term and industry wide problem that RTIG can only do so much to help and therefore is not urgent; however by commencing activities in this area RTIG may assist local authorities in the future.

- ***Recommended Action:*** *RTIG to develop RTI skill-set for local authorities and review its services in this area.*

6.5 Financial

Business Case for RTI

6.5.1 The lack of a clear business case for RTI continues to be a blocker, particularly for bus operators. It is therefore recommended that RTIG continues its focused work in East Kent on developing a business case for RTI. If this is not undertaken urgently then financial investment from bus operator stakeholders across the country may not be maximised meaning that RTI projects do not fulfil their potential.

- ***Recommended Action:*** *RTIG to continue its work to strengthen the Business Case for RTI.*

6.6 Technical

Shelter installations

6.6.1 The installation of at-stop signs has been seriously delayed for some local authorities due to slow installation of shelters and upgrading of shelter roofs. This is partly due to a lack of clarity of what specifying "RTI compliant" means. It is therefore recommended that RTIG considers the development of technical standards and guidelines in this area. Problems in this area have set back implementations and remain an issue at several sites; therefore RTIG should address this matter promptly.

- ***Recommended Action:*** *RTIG to develop of technical standards and guidelines for installation of at-stop signs at shelters.*

Data Management

6.6.2 Data management, processing and sourcing has been raised by all stakeholders as an issue that has caused serious inconvenience. RTIG should therefore consider the development of guidelines in this area and continue to contribute its requirements into the data exchange standard TransXChange2. This area is critical to getting current and future RTI systems running correctly and is therefore a particularly important area.

- ***Recommended Action:*** *RTIG to produce guidelines on data processes and to continue to input into the development TransXChange2.*

Electronic Ticketing Machine links

6.6.3 This report again highlights the difficulties that those implementing RTI systems have experienced in linking RTI systems and ETMs. It is therefore recommended that RTIG continues its work in this area to develop bi-directional specification for exchanging information between them. Difficulties surrounding this link have hindered implementation and the delivery of functionality to some system. Therefore RTIG should address this matter promptly.

- ***Recommended Action:*** *RTIG to continue its work to develop an RTI-ETM bi-directional specification.*

7 Conclusions

7.1 Recommended actions for RTIG

7.1.1 Based on a review of the enablers and blockers raised by stakeholders within the community, this report identifies a number of areas were RTIG could perform actions that may assist its Members in the rollout of RTI. The table below details these and assesses their urgency (were 1 is most urgent and 3 is least urgent). This is based on the size of impact of the issue on the community and the current scale of effect on implementations.

Issue	Recommended Action	Urgency
Central government backing	RTIG to continue to promote the benefits of RTI to central government	1
Data Management	RTIG to produce guidelines on data processes and to continue to input into the development TransXChange2	1
Business case for RTI	RTIG to continue its work to strengthen the Business Case for RTI (eg work in East Kent)	1
Shelter installations	RTIG to develop of technical standards and guidelines for installation of at-stop signs at shelters	2
Customers understanding of RTI systems	RTIG to review its guidelines for local authorities and bus operators new to RTI	2
Electronic Ticketing Machine links	RTIG to continue its work to develop an RTI-ETM bi-directional specification	2
Support within Local authorities	RTIG to continue to develop cost benefit and evaluation guidelines for local authorities	2
Skills shortages within local authorities	RTIG to develop RTI skill-set for local authorities and review its services in this area	3

Table 7-1 Recommendations for RTI Enablers and Blockers

7.1.2 It is recommended that RTIG reviews this table and determines which actions it may undertake over the forthcoming year.