

GREATER MANCHESTER INTEGRATED TRANSPORT AUTHORITY

COMMITTEE: Capital Projects
DATE: 15th January 2010
SUBJECT: Smart Ticketing
REPORT OF: Information Systems Director and Finance and Corporate Services Director, GMPTE

PURPOSE OF REPORT

To provide an update to Members in respect of Smart Ticketing and to approve the release of £500,000 from the outline Minor Works budget for 2009/10 to progress a bid for funding for Smartcard development from the DfT and in order to progress any time critical work.

RECOMMENDATIONS

Members are recommended to:-

- (1) note the contents of the report; and
- (2) approve the release of £500,000 from the outline Minor Works budget for 2009/10 to progress a bid for funding for Smartcard development from the DfT and to progress time critical work, particularly relating to procurement activity.

BACKGROUND DOCUMENTS

Capital Projects Committee 15th January 2010 -Capital Programme Monitoring
Capital Projects Committee 6th November 2009 -Capital Programme Monitoring
Capital Projects Committee 18th September 2009 -Capital Programme Monitoring

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1. Introduction and Background

- 1.1 A key objective for the ITA, and a key business priority for the PTE, is to introduce regional, multi modal, and multi operator smart ticketing to enable seamless and easy access to the public transport network. The success of the “Oyster” system in London, and similar systems elsewhere in Europe, and the rest of the world, has demonstrated the economic and other associated benefits of an integrated smart ticketing system to a city region such as Manchester.
- 1.2 On 15th December 2009, the Department for Transport (‘DfT’) announced that GMPTE; the other five PTEs; and a further three Local Authorities are each able to present ‘Spending Plans’ for £2.2 million of funding (£1.1 million in each of 2009/10 and 2010/11) to support the development of Smartcard.
- 1.3 Work is progressing to enable a bid to be made to the DfT for this funding in January 2010. In order to progress the bid for funding, and in order to progress any time critical work, a release of £500,000 from the outline Minor Works budget is requested at this time. Expenditure incurred as a result of this release will form part of the bid for funding from the DfT.
- 1.4 As part of the 15th December announcement, the DfT also announced changes to the Bus Service Operators Grant (BSOG) to assist Bus Operators to install smart ticket reading machines and vehicle location systems on buses. A requirement to support regional smart ticketing is also will be included as part of any new rail franchise.
- 1.5 Work has progressed during the current financial year to further develop a business case for a Greater Manchester Regional Smartcard. The work has included consideration of a phased implementation, given the significant capital costs of, and the stakeholder interfaces required to, develop a multi modal solution. Work has proceeded with the bus operators to work on how their plans for smartcards would integrate with the regional scheme.
- 1.6 A phased implementation would logically focus on an initial system roll out across the existing and the planned expanded Metrolink network, with a subsequent roll out across the bus and rail networks.
- 1.7 Section 2.4 below sets out the key financial benefits of a staged smart card implementation on the Metrolink network, and the financial business case is summarised at section 2.7.
- 1.8 The introduction of a scheme on Metrolink will also provide a strong background for the development of Quality Partnership discussions with the bus operators.

2. Proposed Solution

- 2.1 The proposed scheme will provide a regional Smart Ticketing system which is capable of delivering solutions for the roll out of smartcard on Metrolink and the bus and rail networks.

Metrolink

- 2.2 The proposed solution for Metrolink will involve passengers checking in and out of the system using platform mounted validators, similar to the system on the non gated elements of the under and over ground railway in London.
- 2.3 It is proposed that an ITSO smartcard and bank credit and debit card smart ticketing capability will be delivered for Metrolink on a phased basis, commencing for at least one line from summer 2011.

The use of bank card ticketing provides an alternative card media to be used for authorisation and payment for travel. This functionality has been operated successfully in New York and Kaohsiung (Taiwan); and TfL (London) and RATP (Paris) are both actively planning bank card ticketing as part of their next phase of smart ticketing implementations. Transport for London (TfL) have also offered to work with and support GMPTE in the use of this technology. In addition, the DfT have indicated their support for bank card ticketing and the development costs associated with bank card functionality are eligible for the DfT funding announced in December as part of the overall ticketing scheme.

A phased approach will enable us to validate the technology, and the business rules associated with the required back office functionality, whilst implementing the solution across the whole of the Metrolink network.

- 2.4 The key financial benefits of a smart ticketing scheme for Greater Manchester, and specifically for Metrolink are as follows

- an increase in patronage resulting from existing users making more journeys and new users as a result of simplification due to the introduction of smart ticketing using stored value, 'accounts' or contactless bankcards.

based on GMPTE surveys undertaken in August 2009; a DfT survey undertaken in November 2009 and based on evidence from TfL and Hong Kong, an increase in Metrolink patronage of 3% is considered to be achievable. A further increase in journeys can be achieved by the introduction of capped ('never pay more than') products for daily and weekly fares. These benefits are not currently included in this assessment.

- an increase in revenue by the reduction in ticketing fraud and misuse, due to introduction of a smart ticketing system as a result of
 - a reduction in the use of counterfeit and copy tickets, by the introduction of secure electronic validation systems;
 - a reduction in the ability to 'over ride', that is travelling using a ticket beyond the valid stop;

- the automatic cancelling of tickets when used thereby removing the opportunity to sell on or re-use tickets;
- a reduction in the ability to use stolen or 'reported lost' tickets as the ticket products can be electronically cancelled and blocked;
- a reduction in pass misuse as automatic ticket checking will only allow valid tickets to be used;
- an improvement in revenue control measures as a significant amount of validation will be carried out electronically and automatically, thereby allowing revenue protection staff to focus on those who may not have a smart ticket;
- a reduction in the potential for internal issue fraud as the use of any ticket will be reconciled against issue; and
- a reduction in the ability to use stolen ticket stock as all high value tickets will be electronic.

Based on GMPTE surveys and data from inspection gateways; and based on evidence from TfL, an increase in revenue, as a result of a reduction in ticketing fraud and misuse, of 3% is considered to be achievable.

- 2.5 A procurement strategy has been developed, and is currently being refined, which will enable the full amount of available DfT funding for 2009/10 to be spent or committed in the current financial year. The procurement strategy will form part of the Spending Plan submission to the DfT in January.
- 2.6 It is currently estimated that the capital costs (including allowances for risk and contingencies) of implementing a smart card solution across the existing and future Metrolink network, including a back office functionality that could be utilised for the future implementation across the bus and rail network, are approximately £16.5 million.
- 2.7 A financial appraisal, which incorporates the capital costs referred to in section 2.6 above; the revenue benefits referred to in section 2.4 above, and allowances for operating costs and capital financing costs has been prepared.

On the assumption that the capital costs are funded in part from the DfT Grant of £2.2 million, with the residue being funded from local borrowings, to be repaid from incremental net revenues generated by the increased revenue referred to above; and interest costs of 5% per annum, the scheme has a discounted payback period of 18 years.

Bus

- 2.8 As each bus operator updates their fleet to take advantage of the DfT funding available to install on bus equipment through the BSOG grant, the PTE will work with them to implement Greater Manchester regional smart ticketing products. This work will be undertaken in conjunction with GMBOA, GMATL and GMTL. Implementing smartcard on buses will be dependent upon the development of a business case and securing the funding required to meet the capital and operating expenditure associated with such a scheme.

Rail

- 2.9 DfT will include the requirements to support regional smart ticketing in the new franchise agreements. These franchise agreements will also include the requirement to support regional smart ticketing for Greater Manchester. Subject to funding, the train operating companies could join the scheme in summer 2012.

3. Next Steps

- 3.1 Following the DfT announcement in December 2009, a Spending Plan will be submitted to the DfT during January 2010 to support a phased roll out of a smart ticketing solution across Greater Manchester, commencing with a staged roll out, incorporating ITSO compliant cards and contactless bank cards and back office functionality on the Metrolink network.
- 3.2 Regular reports will be presented to the Capital Projects Committee on progress.

4. Recommendations

- 4.1 See front cover for recommendations.

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