

## EXECUTIVE BOARD – 19 July 2016

<b>Subject:</b>	Robin Hood Smartcard Development		
<b>Corporate Director(s)/ Director(s):</b>	David Bishop, Deputy Chief Executive/ Corporate Director for Development and Growth		
<b>Portfolio Holder(s):</b>	Councillor Nick McDonald, Portfolio Holder for Business, Growth and Transport		
<b>Report author and contact details:</b>	Andy Gibbons		
<b>Key Decision</b>	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	<b>Subject to call-in</b>
			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Reasons:</b> Expenditure <input type="checkbox"/> Income <input type="checkbox"/> Savings of £1,000,000 or more taking account of the overall impact of the decision	<input type="checkbox"/> Revenue <input checked="" type="checkbox"/> Capital		
Significant impact on communities living or working in two or more wards in the City	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
<b>Total value of the decision:</b> £500,000			
<b>Wards affected: All</b>	<b>Date of consultation with Portfolio Holder(s):</b> 1 June 2016		
<b>Relevant Council Plan Key Theme:</b>			
Strategic Regeneration and Development	<input type="checkbox"/>		
Schools	<input type="checkbox"/>		
Planning and Housing	<input type="checkbox"/>		
Community Services	<input type="checkbox"/>		
Energy, Sustainability and Customer	<input type="checkbox"/>		
Jobs, Growth and Transport	<input checked="" type="checkbox"/>		
Adults, Health and Community Sector	<input type="checkbox"/>		
Children, Early Intervention and Early Years	<input type="checkbox"/>		
Leisure and Culture	<input type="checkbox"/>		
Resources and Neighbourhood Regeneration	<input type="checkbox"/>		
<b>Summary of issues (including benefits to citizens/service users):</b>			
<p>There is a strong need to integrate the new tram network into the existing local bus and rail network. This will both increase accessibility to jobs and the cost effectiveness of network operations. Studies show that smartcard ticketing is key to this integration, with passengers needing to have a simple, easy way to interchange between operators without any fare barriers.</p> <p>For irregular travellers this has now been partially achieved via the Robin Hood PayAsYouGo smartcard scheme. This has so far cost around £2.5m funded via external funding streams. However, this still requires around £500,000 investment to complete retail roll-out to travel centres, web and the tram system.</p> <p>For regular commuters many cities are now investing in account-based smartcard solutions. Here, passengers pay retrospectively for the travel undertaken, with monthly capping across different operators. This system would replace current inflexible prepaid season tickets whereby passengers commit in advance to travel restricted to a given operator. All operators will be on one single retail platform, removing all ticketing barriers to interchange and providing best overall value. This solution also enables using a 'bankers card' and account to be employed as is now commonplace in London.</p> <p>The establishment of a common account based system and common retail network across all operators is estimated to cost up to £4m. It would be delivered in several discrete stages jointly with the commercial transport operators.</p> <p>This report seeks approval in principle to develop the Smartcard System to its full potential as outlined in this report, subject to full feasibility work being concluded and funds being identified,</p>			

and to progress with the development of a detailed business case for each stage of this proposed programme and to investigate forms of external funds to contribute to the capital and ongoing running costs of each stage.

**Exempt information:**

None.

**Recommendation(s):**

- 1 To approve in principle the proposed strategy to develop the Robin Hood smartcard system, to build a detailed business case and seek external funding streams which will be subject to further approval.
- 2 To approve the remaining funding required to complete the existing phase of the current system.

## 1 **REASONS FOR RECOMMENDATIONS**

- 1.1 This proposed development plan will look to further integrate the new tram network into the existing local bus and rail network. This will both increase accessibility to jobs and the cost effectiveness of network operations, reducing fares and subsidised service levels.
- 1.2 It will place Nottingham on a par with Birmingham in this arena and improve the likelihood of future smartcard funding from Midland Connect to develop this programme and widen to the rail network.
- 1.3 It should also assist any future business case to extend the tram network.

## 2 **BACKGROUND (INCLUDING OUTCOMES OF CONSULTATION)**

- 2.1 The smartcard market for public transport is subject to considerable technical change, as being currently witnessed in London. An in-depth large scale review has recently been carried out for Transport for the North. This highlights that there will be a range of different solutions for different customer markets, but these can be split broadly into three types: Pay as you Go, Closed Account and Open Account. In all cases, the systems can support both single operator and all-operator network ticketing options. City regions should aim to support all three types under a common integrated retail system used by both operators and local transport authorities.

### 2.2 **Pay As You Go (PAYG)**

This is aimed at the less frequent, flexible, transferrable market. This is likely to make up at least a third of the market and will basically replace current payment by cash and carnets. As with the Robin Hood PAYG card, users only pay for the travel they have made, with retrospective charging dynamically made on the card. The card is transferrable and flexible – it can be used on any operator and give the best fare available, so no knowledge of current fares is required. It can be used by those without access to a bank account and requires no registration. Ideally it is a more attractive proposition than cash - either by price or functionality - enabling the eventual removal of cash and a full smart ticketing environment.

### 2.3 **Closed Account.**

This is aimed mainly at the more regular non-transferrable market. Instead of purchasing a ticket (of varying periods) in advance of travel, a passenger has a bespoke transport account which is regularly topped-up, together with a 'token' to access the transport system. Each access point carries a list of valid token

identifiers which requires constant updating. The token can be in the form of a smartcard or any other readable smart media (mobile phone etc.). Passenger usage is tracked and recorded in a back office system rather than on the card. A monthly payment is then deducted from the account, based on the usage made and the various commercial pricing rules of each operator. This includes single and all-operator capping across a week and month – processing that is too difficult to do directly on a card.

The account can be independently topped up or automatically reloaded via a link to a person's bank account.

The distinct advantage of this system is its flexibility - it works across all operators and time periods. A passenger doesn't have to restrict in advance to a given operator's season ticket or a given period of validity. So, like PAYG it allows complete flexibility and ability to change travel patterns on a daily basis. Unlike PAYG, this platform requires advanced registration together with a continuous top up payment system. It is usually non-transferrable. Charging takes place at a later stage, so the passenger doesn't know what they have been charged as they travel around the network.

From a technical standpoint, payment to the operator comes from a centralised account rather than off the card, as in PAYG. This requires a co-ordinated communication system across all operators and retail channels to ensure all are constantly updated with a list of the valid tokens currently available.

Unlike PAYG the token is not valid until it has been registered and set up on the system via the network wide communication system.

This option is also the same underlying method for providing discounted concessionary travel to the elderly, disabled, scholars and unemployed.

## 2.4 **Open Account**

This is similar to the Closed Account in functionality. However, the token used is a banker's card and so no prior registration is required and no continual top up system needs to be put in place.

This requires the same back office and communication system to be put in place to the Closed Account system and can work alongside or in conjunction with a Closed Account system.

Although there are no user set-up or entry costs, open account systems are only available to those with bank accounts. Perhaps most significantly, they can only be commercially justified for large geographic and usage systems due to the charges imposed by the banks. Unlike London, they also require considerable set-up and maintenance costs in a deregulated market where the fare structures for each company can be radically different and constantly changing.

### 3 PROGRESS AND PLANS

#### 3.1 Greater Nottingham - current Robin Hood smart platform.

The Robin Hood integrated smartcard system currently provides two ticket types for use across all main bus and tram operators: PayAsYouGo and Prepaid All-Operator Season tickets. This is administered via an expanding network of ticket vending and top up machines.

**Robin Hood PayAsYouGo.** This scheme is the first of its kind in the UK. Card holders put a sum of money in advance onto their card and are then dynamically charged on the basis of the movements made in a given day. There is a range of single operator and all-operator day caps.

Since January 2016 over 8000 cards have been purchased and over 20000 top-ups been made and 250,000 trips. This is reasonable since, unlike London, this card exists in a deregulated 'crowded' market where there are already four proprietary single operator cards with similar functionality. It is hoped that through ever-closer co-operation these other cards will eventually disappear as each operator sees the customer value and simplicity of one single platform.

**Robin Hood Season.** This is a prepaid season ticket for use on any operator, with variants for scholars, students and adults. There are over 10,000 of these in circulation making some 8.5 million trips pa at a value of £6.5m pa.

It is important to note that pre-paid single operator season tickets cannot be put on or topped up via this system. Each operator has decided to retain such tickets on proprietary systems due to technical and commercial reasons. However, they have accepted that this large market would be phased out once a Robin Hood Account based system was introduced.

#### 3.2 Expansion of Robin Hood PAYG system (Stage 1 Completion)

The Robin Hood PAYG system so far implemented is a good start but hasn't fully captured the whole PAYG market onto one single simple platform. This requires:

- The widening of the card types to include child and student PAYG variants, together with traditional prepaid season all-operator and single operator tickets.
- Ability to purchase existing 'non-standard' bus tickets from the 'e' purse eg short hop. These will be separate from the existing all-operator day capping system.
- Completing the extension of capping functionality to enable weekly and monthly capability.
- Development and widening out of the promotion of the scheme, integrating with associated information streams. This will be combined into one single website which will include all-operator real time 'apps' fare look ups and journey planners. Different marketing material to be developed for each key market and roll out stage.

These deliverables will take place in 2016/17 and are already funded via Better Bus Areas Funds.

- The widening of the retail functionality to include the tram network, remote balance checking, web top up and all operators' travel centres.
- Ability to purchase existing 'short hop' tram tickets from the 'e' purse. These will be separate from the existing all operator day capping mechanism
- Further marketing and associated information work to accompany each subsequent deliverable.

This work is currently not funded and will cost a further £500,000.

### **3.3 Expansion to Account based solutions**

As explained above, to widen the Robin Hood network to include weekly and monthly capping will require the development of an account based solution.

For all local operators to move to this system in a co-ordinated manner with a joint retail and communications system will require an investment of up to £4,000,000 to:

- merge existing diverse range of systems onto a new one single platform;
- widen and modify existing vending machine retail network and combine with operators own retail networks;
- widen account access to include other media e.g. mobile phone
- adaptation of the existing proprietary systems of each operator to national standards in line with council's expanding retail network and emerging rail standards;
- establish a managed system solution for minor operators;
- establish a common data communications network;
- develop a bankers card 'open' system and merger with other two systems;
- establish an independent ticketing company to manage and distribute estimated significant fare revenue, run and promote joint ticketing schemes;
- marketing and promotion.

There is considerable work still required to determine the overall specification of this system and the detail and sequence of each stage of implementation.

### **3.4 Overall Plan and Timescales**

Such a significant development can take place in discrete stages, with each separately funded and subject to individual business plans. This will allow for the ability to bring in external funding at each stage..

At this stage of discussions with operators and potential suppliers it is felt that the following delivery dates could be achieved, subject to joint business cases, funding being determined, and acceptable technical trials.

Stage 2      April 18

- Account based system for Greater Nottingham area
- Season ticket functionality can be moved onto account system
- Removal of carnets and simplification of fare structures
- Weekly and monthly retrospective capping
- Joint retail communication and retail system for Greater Nottingham

Stage 3      Sept 19

- Account based system for region
- Regional communication and clearance system
- Automation of graduated fare scales
- Merger all retail processes
- Single company for scheme operation
- Bankers cards and mobile phone used as account access token

### 3.5 Costs

In broad terms the estimated likely costs for the main stages are:

Completion of PAYG system	£0.5m
Greater Nottingham closed account system	£1.1m - £1.3m
Regional open account based system	£2.5m - £2.7m

These costs have been determined via a series of workshops and discussions with other councils.. Each stage will be subject to further consultation, advice and as appropriate, open procurement once its precise detail has been specified and agreed.

The £0.500m total cost will be funded from the “Feasibility Reserve”, which has been established and earmarked for feasibility work and projects in development .

There is strong potential for income generation from this system once it has been fully developed and proved to be reliable, cost effective and attractive to the public. This will be explored more fully as the system evolves and more functions move onto this system from other existing more expensive platforms. This will include the ability for the on-street retail network to be used for payment of non-transport functions (e.g. housing rental payment, council tax etc.)

## 4 **OTHER OPTIONS CONSIDERED IN MAKING RECOMMENDATIONS**

4.1 The recommended plan has been discussed and accepted by all the main local transport operators. It dovetails with a wider regional plan for D2N2 which has been drawn up by ITP/Systra consultants and agreed by all operators and local transport authorities. (see Background Papers). It is viewed that this plan is both realistic and deliverable within the tight timescales desired by all partners.

4.2 The option of doing nothing or awaiting external funding opportunities has been considered but rejected on the grounds that this does not :

- maximise the accessibility and efficiency benefits from the public transport network;

- meet individual operators' timescales and commercial plans;
- take advantage of current investment and momentum of the Robin Hood Scheme;
- position Nottingham to take advantage of future Midland Connect funds and form a Midlands wide scheme linking with Birmingham and the local rail network.

- 4.3 A wide scale study of the options available has been undertaken by PWC for Transport for the North and concluded that the above plan is sufficiently flexible to cater for many different markets and many different ticketing scheme options.
- 4.4. Due to the current starting point this plan will enable wide area account based multi-modal smart ticketing to be delivered in Greater Nottingham significantly earlier than in all other core-cities.

## **5 FINANCE COMMENTS (INCLUDING IMPLICATIONS AND VALUE FOR MONEY/VAT)**

- 5.1 This decision seek approval to spend £0.500m on the development of the Robin Hood smartcard system as part of the integration of transport measures. The expenditure can be contained within the earmarked reserve – Feasibility Fund, managed by the Director of Major Projects for the Council.
- 5.2 The establishment of a common account based system and common retail network across all operators is estimated to cost upto £4.000m (as outlined in para 2.7). Before proceeding, this will be subject to securing external funding and a further decision to approve acceptance of the funding outlining specific conditions and risks, and the Council incurring further expenditure in its capital programme.
- 5.3 The running costs associated with delivering the Robin Hood smartcard scheme are expected to be recovered from operators as part of the distribution of the ticket sales received. Currently there is no agreement with the operators and this will need to be put in place as soon as possible before further investment in the scheme in order to avoid future unfunded expenditure.

## **6 LEGAL AND PROCUREMENT COMMENTS (INCLUDING RISK MANAGEMENT ISSUES, AND INCLUDING LEGAL, CRIME AND DISORDER ACT AND PROCUREMENT IMPLICATIONS)**

- 6.1 The report seeks approval for the development of the Robin Hood Smartcard scheme expansion. The aim of which is to provide less restrictive access to transport across the City and the East Midlands region, by the creation of a flexible, interoperable transport network under a single retail platform. The platform will be available to all operators on a non-discriminatory basis and so new and existing operators will be able to utilise it and continue to maintain and control their individual pricing and ticketing schemes.
- 6.2 It is understood from the report author that this proposal is at early stages and it will require fuller development and scoping to prepare detailed specifications of each stage under the broader scheme.
- 6.3 Each stage will then be subject to consultation and advice and guidance from the Legal, Procurement and Finance teams.

- 6.4 Any contracts entered into under the Scheme will be subject to compliance with the Council's Contract Procedure Rules and the Public Contracts Regulations 2015 with specific approvals for each stage and the approval to enter into contracts at each stage being sought by the Corporate Director for Development and Growth.

**7 STRATEGIC ASSETS & PROPERTY COMMENTS (FOR DECISIONS RELATING TO ALL PROPERTY ASSETS AND ASSOCIATED INFRASTRUCTURE)**

- 7.1 None

**8 SOCIAL VALUE CONSIDERATIONS**

- 8.1 This new initiative will increase accessibility and affordability to jobs, training and education.

**9 REGARD TO THE NHS CONSTITUTION**

- 9.1 None

**10 EQUALITY IMPACT ASSESSMENT (EIA)**

- 10.1 Has the equality impact of the proposals in this report been assessed?

No



An EIA is not required because this proposal relates to the funding of a fully flexible, open, smartcard system hardware, the detail of which has yet to be fully specified. Full account will be taken of all needs within the detailed specification stage, as will subsequent decisions relating to the specification of ticketing schemes using this flexible open system.

There is no impact on the existing concessionary fares schemes for the elderly, those with disabilities, job seekers and scholars travel to those from low income families. However this open platform will make the design, targeting, affordability and administration of future schemes far easier

**11 LIST OF BACKGROUND PAPERS RELIED UPON IN WRITING THIS REPORT (NOT INCLUDING PUBLISHED DOCUMENTS OR CONFIDENTIAL OR EXEMPT INFORMATION)**

- 11.1 See attached report 'Midland Connect Note 2.0.doc' by ITP/Systra

**12 PUBLISHED DOCUMENTS REFERRED TO IN THIS REPORT**

- 12.1 None

**13 OTHER COLLEAGUES WHO HAVE PROVIDED INPUT**

- 13.1 None