

# WLA Smartcard Business Case Final Report

November 28<sup>th</sup> 2005

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## 1. EXECUTIVE SUMMARY

This report examines the business case for implementing smartcards in West London.

RSe Consulting built a model for this purpose which contains forty variables and tested a number of different scenarios for implementing smartcards.

The model suggests that there is no business case for a local authority to develop a smartcard either individually or in partnership – but that tackling it in partnership is considerably less expensive:

- over five years an individual local authority developing the Smartcard alone will lose £2,470,000 based on costs of £2,918,000 and benefits of £448,000
- over five years an individual local authority developing the Smartcard in partnership with the other WLA authorities will lose £1,990,000 based on reduced costs of £2,437,000 because of economies of scale and the same benefits of £448,000

The main costs come from: upfront hardware costs, systems integration costs and maintenance costs.

The main benefits come from reduced transaction costs from automated payments and form-filling and an increased revenue collection rate from a reduction in fraud and bad debts.

The rationale for implementing smartcards would therefore depend on the non-financial strategic benefits of which the most significant are: improving customer service, supporting the transformational Government strategy particularly around shared services and implementing Smartcards as part of a wider channel migration strategy.

There are also some non-financial issues to consider; in particular the risks of implementing Smartcards and the challenges around governance of Smartcards if done in partnership.

Finally the WLA should consider working with Transport for London in this area, even though the TfL proposition is not sufficiently clear to allow the WLA to make an informed decision about this yet:

- TfL has already developed the Oyster card and could therefore offer the WLA resources and expertise
- TfL is keen to extend the take up and use of the Oyster card amongst the WLA's customers
- But they are in the process of developing TfL's strategy for the Oyster card in general and towards working with local authorities specifically
- Modelling a highly optimistic scenario of sharing Oyster cards and setup costs with TfL reveals that new card users would need to be worth at least £12 each to TfL to justify them subsidising the negative payback

## 2. INTRODUCTION

### 2.1. Purpose of this document

RSe Consulting has been commissioned by the West London Alliance e-Government Group (WLA) to explore the business case for using Smartcards to deliver public services in West London.

This report enables the WLA to decide whether to proceed to the detailed planning stage of the Smartcard project by:

- Explaining the vision for the WLA Smartcard
- Outlining the process undertaken to identify the priority transactions to be put onto the Smartcard
- Setting out the anticipated costs and benefits from implementing these transactions across different services
- Assessing the benefits of working in partnership within the WLA, and also working with TfL to share the Oyster card platform
- Exploring the key next steps for the WLA in light of the analysis

### 2.2. Background

There are many reasons why now is the right time to consider Smartcards:

1. **Priority outcome G12:** The Implementing Electronic Government (IEG) programme and the associated Priority Service Transformation Outcomes (PSTOs), in particular G12, have given prominence to Smartcards as a means of transforming the way that citizens interact with their council
2. **Customer expectations are rising:** Citizens expect to access council services in the same manner as they access private sector services; Smartcard technology may be a vital tool in meeting these raised expectations
3. **More mature technology:** Smartcards are part of the general technological advance which is transforming the way that citizens access council services
4. **Transport for London offer:** TfL has indicated a desire to work with London Boroughs to deliver local council services using the Oyster card platform. The fine details of the offer have yet to be rubber-stamped; however, it is safe to say that some costs will be shared under the scheme

**Capitalising on these is all made possible by a very strong WLA partnership.**

## 2.3. Methodology

We used the following methodology to investigate the business case for using Smartcards to deliver public services in West London:

### 1. Interviews with partners

- To identify the strategic drivers behind the project (PSTO G12 / Gershon etc.)
- To engage all of the WLA partners in the project

### 2. Identification of categories of benefit

- Identification of the potential benefits of Smartcards using the Hillingdon Traffic Light model
- Testing of these against internal RSe business case templates (such as the Brent-RSe Return on Investment model) for further categories

### 3. Identification of priority transactions

- Development of criteria list for what makes a priority transaction for Smartcards
- Testing of list against a full service list from the I&DeA toolkit
- Identification of the four priority transactions

### 4. Putting the model together

- Obtaining information from key WLA partners through data collection templates and interviews
- Identification of supplementary data from sources such as the National Smartcard Authentication Project
- Building of spreadsheet-based business case model based on information supplied

### 5. Producing interim report

- Putting together an interim report for discussion with lead client
- Incorporating feedback into report

### 6. Writing final report

## 2.4. Partners' Overview on Smartcards

**WLA partners are primarily concerned with meeting Priority Outcome G12**

Smartcards offer an excellent opportunity to transform the way that citizens interact with their council. However, most WLA partners were primarily focused on meeting PSTOs when appraising the likely strategic drivers for Smartcards.

Other strategic drivers, besides hitting PSTOs, include:

- **Integration of service delivery:** Customers will be able to pay for a range of council services in one place at the same time
- **Cross boundary access to services:** Smartcards will facilitate the joined-up delivery of public services in West London
- **Citizen demand:** Several of the WLA partners believe that the demand for accessing council services through Smartcards is potentially significant, especially with applications like parking

We also asked partners to rank the following possible benefits of Smartcards from the perspective of their individual authority. The results, in rank order, were:

1. **Staff time savings from less cash-handling:** Fewer staff will be needed to handle cash transactions if citizens pre-pay for services with their Smartcards
2. **Improved cash flow:** Citizens can use their Smartcards to pre-pay for services before they are delivered which allows councils to earn more interest on cash balances
3. **Front-office staff time savings from automated transactions:** Smartcards will mean that staff will ultimately spend less time “paper-chasing” due to citizens self-serving
4. **Public Relations:** Councils that have Smartcards and allow citizens to serve themselves are increasingly seen as technology-savvy
5. **Rationalising systems:** Issuing a Smartcard that covers multiple applications will mean that fewer different cards will have to be issued overall
6. **Efficiencies in the back office:** Smartcards offer an opportunity to make back office systems and processes more efficient

There are of course risks involved with undertaking such a large scale capital project within the WLA. Interviews with WLA partners identified three key risk areas:

1. **Financial:** At this stage, partners do not know where the necessary funds for the Smartcard project are going to come from. However, working in partnership (both within the WLA and also with TfL) will ensure that economies of scale can be exploited
2. **Legal & governance:** The exact nature of the deal with TfL has yet to be determined, as have governance<sup>1</sup> issues around eventual ownership of the Smartcard
  - a) These issues are challenging for partnership schemes of this scale and nature
  - b) The issues become even more challenging with the involvement of TfL
3. **Technology:** Given the pace at which technology develops, the solution implemented by WLA partners has to be scalable so that:
  - a) Cards have adequate capacity to facilitate the loading of new applications

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<sup>1</sup> See Governance section for more details

b) The scheme has the flexibility to bring in new partners if necessary

### 3. IDENTIFICATION OF BENEFITS & PRIORITY TRANSACTIONS

#### 3.1. Benefits

In order to build a business case model we had to identify two things upfront:

1. The likely benefits from introducing smartcards
2. The services to be put onto a smartcard

WLA partners identified the broad categories of cashable, non-cashable and qualitative benefits anticipated from Smartcard deployment using the Hillingdon Traffic Light Model in a meeting with lead partners. We then wrote up and tested the analysis against RSe business case templates to ensure that no categories had been missed out.

Benefits were split into three categories:

- **Red** - Cashable benefits<sup>2</sup>. Typically, these are the cost savings resulting directly from the implementation of Smartcards
- **Amber** - Non-cashable benefits. These are usually staff time savings that may require further management action to be realised
- **Green** – Qualitative benefits. These are the benefits like social inclusion that, while important to the success of a project, are hard to quantify from a financial perspective

The following table outlines how the benefits were classified<sup>3</sup>:

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<sup>2</sup> Another major benefit from introducing smartcards is the **decommissioning of channels**. However, the benefits from closing down access channels are not necessarily realisable (and are also politically sensitive) and are hence not captured by our model

<sup>3</sup> For further detail on these benefits please see the appendix

Red Benefits	Amber Benefits	Green Benefits
<ul style="list-style-type: none"> <li>• Cash-flow</li> <li>• Reduced transactions costs</li> <li>• Increased debt collection</li> <li>• Economies of scale</li> <li>• Reduction in fraud</li> <li>• Rationalising systems</li> <li>• Savings in consumables</li> </ul>	<ul style="list-style-type: none"> <li>• Staff time savings</li> <li>• Efficiencies in the back office</li> </ul>	<ul style="list-style-type: none"> <li>• Social inclusion</li> <li>• Public relations</li> <li>• Branding</li> <li>• Better management information</li> <li>• External agency benefits</li> <li>• Brand awareness</li> <li>• Risk-sharing among WLA</li> <li>• Citizen desire for smartcards</li> <li>• Meeting G12</li> <li>• External &amp; internal customer satisfaction</li> <li>• Development of another access channel</li> <li>• Partnership with TfL</li> <li>• Cross-boundary services</li> <li>• Olympics</li> </ul>

### 3.2. Priority transactions

To establish which priority transactions to consider Smartcard implementation across, a full service list from the I&DeA toolkit was tested against the following criteria:

- **Number of potential card users** – i.e. the total possible users of each priority transaction service
- **Number of current cards in use** – i.e. the number of swipe cards currently in use by citizens and hence, the number of channels that require rationalising
- **Likely take-up** – i.e. the percentage of citizens using smartcards to access priority transaction service areas
- **Cost of replacing / integrating current systems** – i.e. the cost of integrating smartcard readers with legacy systems
- **Number of agencies involved** – i.e. the different partners, whether in the public or private-sector, involved in the delivery of priority transaction services
- **Security risk** – i.e. the level of appropriate authentication needed for citizens to safely access the priority transaction services

We made two assumptions about priority transactions:

1. At some point in the future virtually all council services will be available on smartcards
2. Roll-out of smartcards into different service areas will be gradual and it is our task to identify which service areas should be made available to access via smartcards first

This exercise enabled us to identify the following four priority transactions:

### 1. All Level 1 transactions<sup>4</sup>

**Previously**, Mrs. Smith had to fill in paper forms and show appropriation means of identification before seeking advice about receiving help in her home. This often required the assistance of customer service staff to answer questions and oversee the form-filling. Staff then took the information provided and re-keyed it into back office systems, often with typing errors. Mrs. Smith also used to make low-value level 1 payments face-to-face at the council one-stop shop. This required staff to receive cash, provide change and then process the cash in the back office.

**Now with Smartcards**, Mrs. Smith hands her smartcard over to the customer service agent when enquiring about home help. The card is held against a reader and her details are instantly verified, saving all that time that used to be taken up filling in forms. Information is automatically sent through to the back office system, meaning that staff have to do less data entry. The electronic purse on Mrs. Smith's smartcard means that she can pay for sundry discretionary services without handing over money. Council staff are no longer required to provide change and move the cash to the bank.

### 2. Libraries

**Previously**, when Mrs. Smith forgot to renew her books on time, front-line library staff had to take a cash payment, issue change and log the payment onto the system. Staff in the back-office then had to go through the process of reconciling payments with the council financial management system.

**Now with Smartcards**, Mrs. Smith hands over her smartcard and the amount she pays in fines is automatically deducted from the e-purse. Staff no longer have to take payments, issue change and reconcile any money in the tills with the library management system. Fewer front-line officers are required on the issues desk, owing to the fact that transactions take less time to complete, meaning that they can get on

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<sup>4</sup> Level 1 authentication relates to transactions where misappropriation causes only a minor financial loss or inconvenience. In order to capture the potential for time-savings from the numerous services that require Level 1 authentication, we decided to model putting Smartcard readers into all council offices that offer services requiring Level 1 authentication. For further explanation and a full list of the 205 Level 1 transactions, please see the appendix.

with more value-added work helping citizens choose books, or putting together detailed reading plans.

### 3. Leisure

**Previously**, when Mrs. Smith went to book her weekly swimming class, she had to stand in a queue at the customer service desk, give the attendant her details and then wait for her details to be input onto the system before the class was booked. On the day of the class, Mrs. Smith then has to make a cash payment. Officers have to handle the cash, issue change and reconcile any money in the tills with the leisure management system.

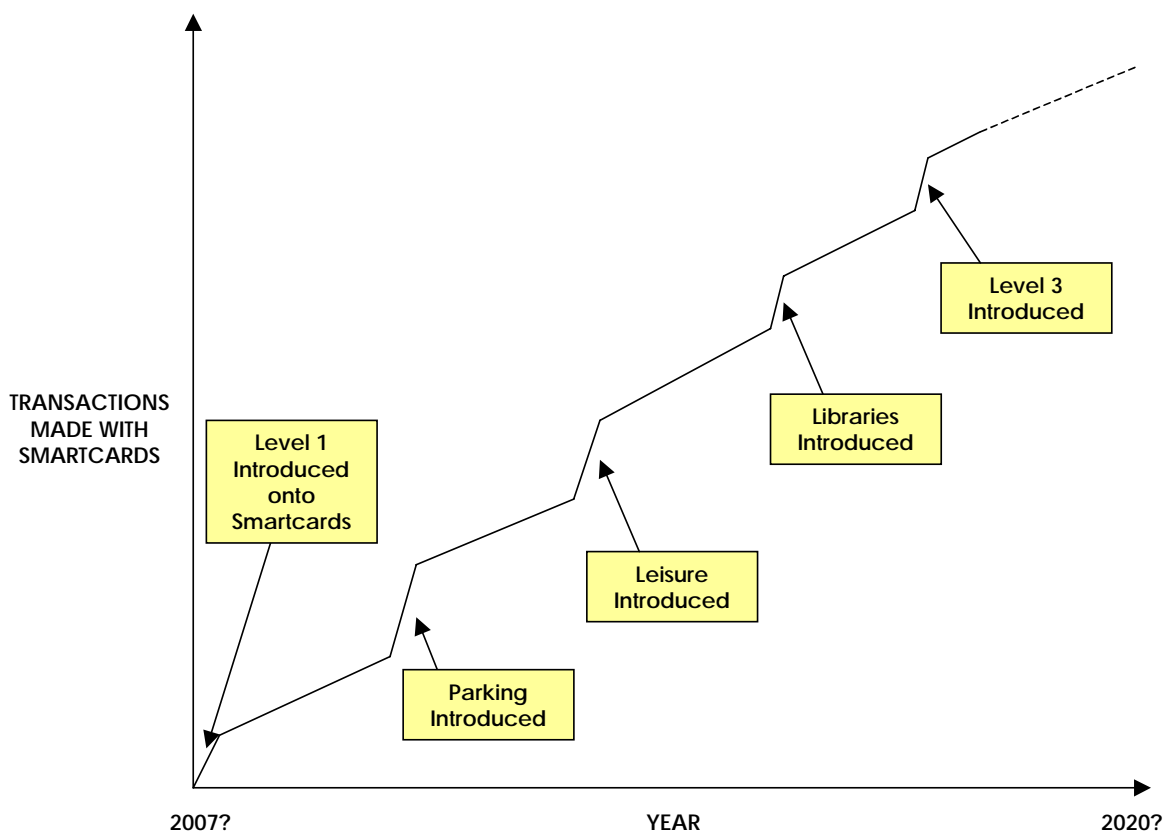
**Now with Smartcards**, Mrs. Smith can book her swimming class on the automated system in the customer services area, and the money is automatically deducted from the e-purse on her smartcard. This means staff spend less time handling payments, transactions take significantly less time and reconciling cash receipts with the leisure management system is much less time-consuming.

### 4. Parking

**Previously**, Mrs. Smith had to fiddle about with loose change when paying for parking in her West London borough. Parking staff also have to drive around the borough collecting income from the parking meters.

**Now with Smartcards**, Mrs. Smith holds her smartcard against the reader on the parking meter and the requisite amount of money is deducted from the e-purse, meaning that she doesn't have to carry round as much change. The income collection team working for parking services is now only half the size that it used to be.

## How the implementation might look:



## 4. COST-BENEFIT ANALYSIS

We built a comprehensive spreadsheet-based Return on Investment model to analyse the payback of Smartcards implementation. The model tested 4 scenarios with 40 variables. Each scenario considers the Smartcards when issued for multiple functions (i.e. the three priority services of parking, leisure & libraries and also level one authentication transactions) with implementation as follows<sup>5</sup>:

- Setup year – Level 1 Authentication introduced
- Year 1 – add in Parking
- Year 2 – add in Leisure

<sup>5</sup> Level 1 Authentication is assumed to be introduced first to provide the council-wide foundation for Smartcard implementation. Subsequent services are added in order of the number of transactions made by citizens in each service.

- Year 3 – add in Libraries

**The key conclusions from the analysis are:**

- Smartcard implementation yields a negative payback for WLA boroughs over five years
- Working in partnership across WLA boroughs improves payback markedly over working alone
- The major costs of the Smartcard scheme come from:
  - Upfront hardware costs
  - Systems integration costs
  - Maintenance charges
- The financial benefits from the Smartcard scheme are not substantial; however, the more significant benefits come from:
  - Increased collection rate from a reduction in fraud and bad debts
  - Reduced cash handling costs
  - Reduced transaction costs from automated payment and form-filling
- The benefits from each service per borough, from our base-case analysis are:
  1. Leisure (£72k in 5<sup>th</sup> year of implementation)
  2. Parking (£54k in 5<sup>th</sup> year of implementation)
  3. Level 1 Authentication (£12k in 5<sup>th</sup> year of implementation)
  4. Libraries (£7k in 5<sup>th</sup> year of implementation)

#### 4.1. Key variables

The results of the analysis are highly contingent on a number of key variables (the impact of which are addressed in the Sensitivity Analysis section), including:

1. Percentage take up
2. Material cost of card
3. Systems integration costs
4. Cost of new parking meters
5. Increased debt collection rate
6. Revenue taken across 4 services
7. Time saved per transaction
8. Number of transactions per year

#### 4.2. Results

The key assumptions that underpin the analysis are documented in detail in the spreadsheet model.

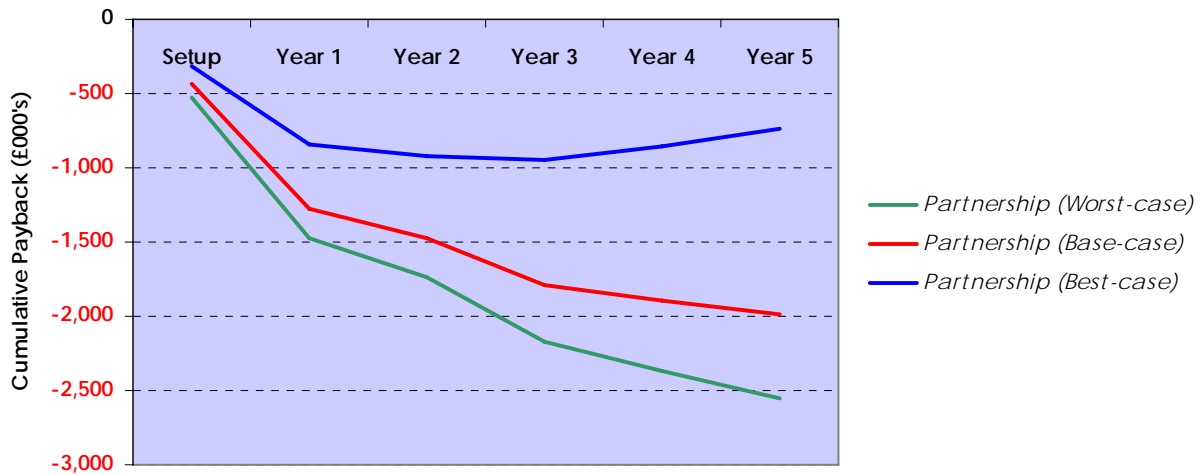
Note that all results are presented as the costs and benefits to ONE borough

## Partnership Implementation (High-Medium-Low analysis)

This presents a High-Medium-Low analysis of the payback per authority in partnership, with authorities issuing Smartcards with multiple functions (i.e. the three priority services of parking, leisure & libraries and also level one authentication transactions)

£000's	Setup	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Partnership (Worst-case)</b>	The payback from a single WLA borough issuing multiple function Smartcards in partnership with all WLA boroughs (using worst-case assumptions)						
Cost	523	949	297	505	251	251	<b>2,775</b>
Benefit	0	3	33	61	65	66	<b>228</b>
Cashflow	-523	-946	-264	-444	-186	-185	<b>-2,547</b>
<b>Payback</b>	<b>-523</b>	<b>-1,469</b>	<b>-1,733</b>	<b>-2,177</b>	<b>-2,363</b>	<b>-2,547</b>	
<b>Partnership (Base-case)</b>	The payback from a single WLA borough issuing multiple function Smartcards in partnership with all WLA boroughs (using base-case assumptions)						
Cost	432	851	259	426	235	235	<b>2,437</b>
Benefit	0	7	60	118	128	134	<b>448</b>
Cashflow	-432	-844	-199	-308	-106	-100	<b>-1,990</b>
<b>Payback</b>	<b>-432</b>	<b>-1,276</b>	<b>-1,475</b>	<b>-1,783</b>	<b>-1,889</b>	<b>-1,990</b>	
<b>Partnership (Best-case)</b>	The payback from a single WLA borough issuing multiple function Smartcards in partnership with all WLA boroughs (using best-case assumptions). This model assumes that existing Oystercard top-up technology is used and therefore no extra top-up machines are required						
Cost	320	546	198	292	212	212	<b>1,780</b>
Benefit	0	24	121	260	303	334	<b>1,042</b>
Cashflow	-320	-522	-77	-33	90	122	<b>-739</b>
<b>Payback</b>	<b>-320</b>	<b>-842</b>	<b>-918</b>	<b>-951</b>	<b>-860</b>	<b>-739</b>	

## Cumulative Payback in Partnership



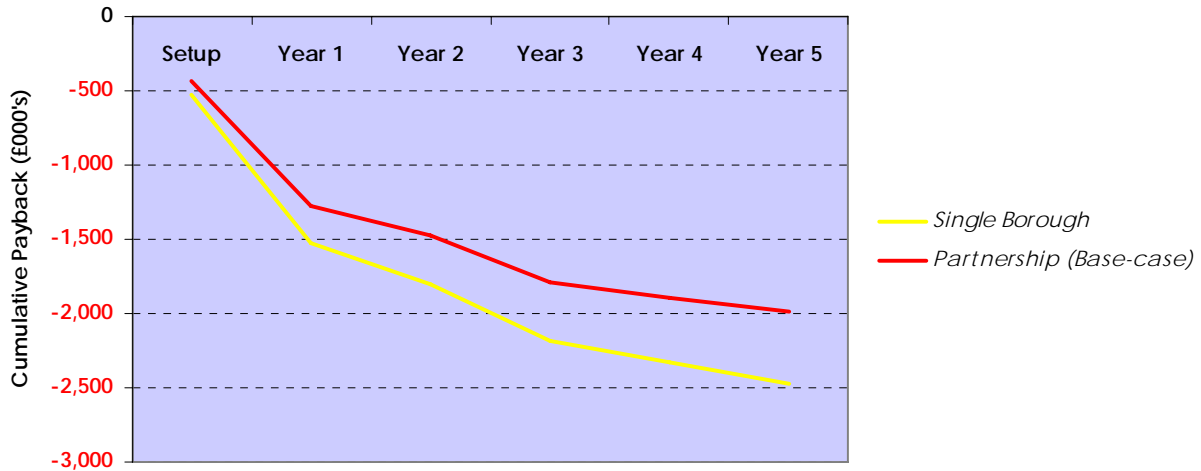
## Partnership vs. Single Borough Implementation

This presents a comparison of the base-case payback per authority working in partnership with all other WLA authorities, versus the base-case payback per authority working individually (in both cases with authorities issuing cards with multiple functions).

The difference in payback stems from the economies of scale exploited from working in partnership; economies that are impossible for an individual authority to enjoy.

£000's	Setup	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Single Borough (Base-case)</b>	The payback from a single WLA borough issuing multiple-function Smartcards in isolation (using base-case assumptions)						
Cost	531	1,002	333	505	274	274	<b>2,918</b>
Benefit	0	7	60	118	128	134	<b>448</b>
Cashflow	-531	-994	-273	-388	-145	-139	<b>-2,470</b>
<b>Payback</b>	<b>-531</b>	<b>-1,525</b>	<b>-1,798</b>	<b>-2,185</b>	<b>-2,331</b>	<b>-2,470</b>	
<b>Partnership (Base-case)</b>	The payback from a single WLA borough issuing multiple function Smartcards in partnership with all WLA boroughs (using base-case assumptions)						
Cost	432	851	259	426	235	235	<b>2,437</b>
Benefit	0	7	60	118	128	134	<b>448</b>
Cashflow	-432	-844	-199	-308	-106	-100	<b>-1,990</b>
<b>Payback</b>	<b>-432</b>	<b>-1,276</b>	<b>-1,475</b>	<b>-1,783</b>	<b>-1,889</b>	<b>-1,990</b>	

### Cumulative Payback (Single Borough vs. Partnership)



#### 4.3. One further scenario – a partnership with TfL

The above analysis demonstrates that payback is likely to be negative when Smartcards are implemented by WLA authorities working alone or in partnership with other WLA authorities. However, if card costs (through the use of Oystercards) or other fixed costs are subsidised by TfL, there may be a business case for Smartcards.

#### The benefits for the WLA of working with TfL would include:

- **Cost sharing:** The precise nature of TfL's offer has yet to be rubber-stamped; however, it is safe to say that certain costs, such as systems integration costs, will be shared under the scheme
- **Larger take-up of smartcards:** This will be driven by (a) the existing Oyster users in West London (b) the additional services that Oyster offers West London citizens around transport
- **Joined-up services:** Combining the facilities for paying for transport and other council services joins-up services for customers
- **Marketing:** West London boroughs will have a lot more leverage when it comes to marketing if the proposed smartcard has Oyster capability

### The benefits for TfL of working with the WLA include:

- **Extending the oyster brand:** Having oyster functionality on council smartcards will ultimately extend the Oyster brand and take it nearer to that of a 'lifestyle' card like the Octopus brand in Hong Kong
- **Increasing the number of passengers using Oyster...** West London citizens that are only irregular users of London Transport are more likely to pay with their council smartcard than cash, therefore increasing Oyster usage
- **...especially amongst drivers:** For TfL these are a hard to reach but critical group; by using the smartcard for parking the WLA can deliver many of these customers to Oyster
- **Wider infrastructure:** Readers will be in more places enabling passengers to top up more frequently
- **Perceived public sector partnership:** This sort of liaison will help TfL prove that they are a good public sector partner

### However, in order to progress any partnership working with TfL, a number of issues would need to be resolved:

- **Governance:** Who will own the Oyster card or handle customer complaints?
- **Balance of funding:** The balance of funding between the different partners needs to be determined
- **Cost sharing:** What is the exact nature of the TfL deal? This could be established by a consideration of the financial benefits to TfL from:
  - How many additional Oyster users the WLA can deliver to TfL
  - How much each of these users is worth to TfL
- **Partnership working:** How much more complex will it be to work with TfL/Transys than to go it alone?

## 4.4. TfL Scenario - Results

Using the partnership best-case scenario as the basis for our analysis, we ran the model using optimistic forecasts for TfL's contribution to costs<sup>6</sup> (including, among others, the assumption that the WLA use the spare capacity on the revamped Oyster card and hence incur no card costs).

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<sup>6</sup> See appendix 9.8 for further details of the assumptions made in order to model the possible cost-sharing arrangements with TfL

## Best-case TfL partnership scenario

**Partnership (Best-case)** The payback from a single WLA borough issuing multiple function Smartcards in partnership with all WLA boroughs (using best-case assumptions). This model assumes that existing Oystercard top-up technology is used and therefore no extra top-up machines are required

Cost	225	471	145	216	160	160	<b>1,377</b>
Benefit	0	24	121	260	303	334	<b>1,042</b>
Cashflow	-225	-447	-24	44	143	174	<b>-336</b>
<b>Payback</b>	<b>-225</b>	<b>-672</b>	<b>-696</b>	<b>-653</b>	<b>-510</b>	<b>-336</b>	

This table indicates that payback is likely to be negative, even when the most optimistic forecasts are used to take account of TfL's potential leverage as a partner within the WLA Smartcard project.

Using the following assumptions we can examine further the contribution necessary from TfL:

- 45% take-up of smartcards by year 5 in one West London borough (as per the Partnership best-case TfL scenario)
- 25% of these people are new Oyster card users (this will amount to approximately 28,125 new Oyster card users in one borough by year 5)

In addition to sharing the costs outlined in appendix 9.8, each of these new users would have to be worth **at least** £12 to TfL over 5 years in order to justify them subsidising the remaining £336,000 negative payback per borough.

## 5. SENSITIVITY ANALYSIS

The overall results of the analysis are contingent upon a number of key variables. These key variables are highlighted in the table below along with the impact that changing the variables would have on cumulative payback in the base-case analysis in each service.

Key Variable	Source	Base-case Value	Amount of change in sensitivity	Effect of change on 5-year payback
% take up (in Year 1)	Assumption	10%	↑ 5%	a decrease of £4,000
% take up (in subsequent years)	Assumption	5%	↑ 2.5%	a decrease of £37,000
Material cost of card	Smartex	£1.50	↑ £0.5 (per card)	a decrease of £37,000
Systems integration costs	LB Hounslow	£27,000 per system	↑ £5000 (per system)	a decrease of £110,000

Cost of new parking meters	LB Brent	£2,516	↑ £500	a decrease of £115,000
Increased debt collection rate	LB Hillingdon	1%	↓ 0.5%	a decrease of £126,000
Revenue taken across 4 services	Various boroughs	See model	↓ 10% (in each service)	a decrease of £16,000
Time saved per transaction (payment)	Assumption	0.5 minutes	↓ 0.25 minutes	a decrease of £18,000
Time saved per Level 1 transaction (form-filling)	Assumption	5 minutes	↓ 3 minutes	a decrease of £7,000
Number of payment transactions	Various boroughs	See model	↓ 10% (per year)	a decrease of £3,000
Number of form-filling transactions	Various boroughs	See model	↓ 10% (per year)	a decrease of £1,000

## 6. LEVEL 3 AUTHENTICATION

To supplement the above analysis, we have also performed a high-level analysis of Level 3 authentication being brought within Smartcards. As explained in the appendix, Level 3 transactions include those where misappropriation of identity causes a substantial financial loss or inconvenience, or a risk to personal safety. Council services requiring Level 3 authentication include benefits, payments over £80 and social care information.

Note that due to the security issues around Level 3 transactions, a new type of java-card would need to be issued with increased security functionality to cover Level 3 transactions.

### 6.1. Cost-benefit analysis

A quick and dirty analysis of Smartcards in Level 3 transactions was performed, assuming implementation without other services on the card (principally because the reissuing of Smartcards would be required to contend with the increased security considerations).

The implementation of Smartcards in Level 3 transactions has the following implications for costs and benefits when compared with analysis for Level 1 transactions:

Costs	Benefits
<b>Material cost:</b> Java cards are £4.50 per card including printing. With bulk-buying the WLA may be able to get them for £4 a go	<b>Revenue:</b> Revenue collected is estimated to be £25m <sup>7</sup> (this is the value of the council tax payments collected).
<b>Cost per reader:</b> Dual readers cost £500 each rather than £150	<b>Transactions:</b> This is estimated to be 800k (i.e. the number of payments over £10 taken by a London Borough according to the e-Pay National Project)
<b>Top up machines:</b> 25 required under this scenario rather than 10	
<b>Legal fees:</b> Increase in setup costs to £50k due to the higher level nature of the transactions	
<b>API's (Software interfaces):</b> The number required increased from 1 to 10	
<b>Development costs:</b> Doubled from £30k to £60k and the licence fees increased to £6k p.a.	
<b>Maintenance costs:</b> Three maintenance staff are required (£30k salary) rather than 1	

## 6.2. Results

The results show that there is potential for payback in the long term from implementing Smartcards for level three authentication services. This is largely due to both the:

1. **Amount of revenue taken in this area** - providing an increased benefit from reduced fraud and debt collection
2. **Number of higher-level security transactions** – providing an increased benefit from reduced transaction costs

The majority of the benefits would come from increased debt collection and reduction transaction costs.

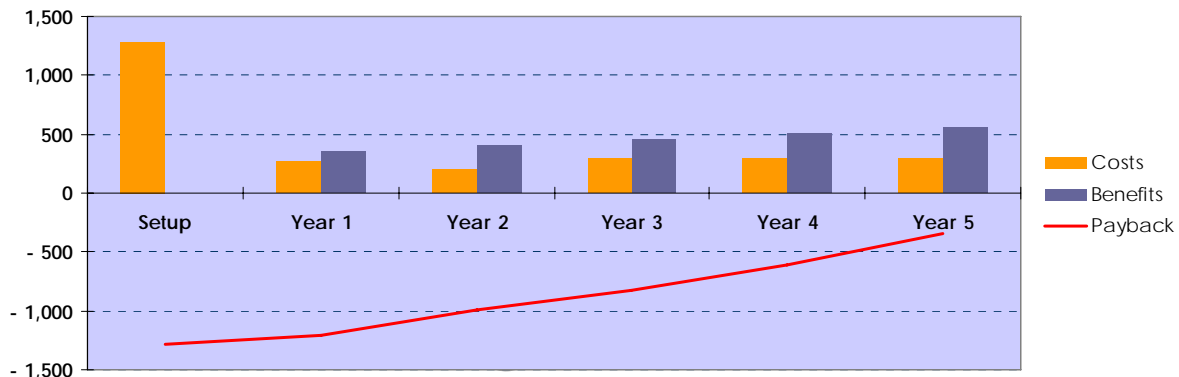
**NB: These conclusions are based on a high-level analysis of Level 3 transactions and are highly contingent on a number of key variables. The benefits outlined above, in particular, need to be probed further before establishing the exact nature of the business case for Level 3 transactions being undertaken with Smartcards.**

<sup>7</sup> This £25m would not be taken F2F (only 10% would). However, there are other sources of payments that count as level three (such as parking permits – approx. £7m) that would be covered by Smartcards, so £25m is thought to be good proxy.

The following table shows the estimated payback over a five year payback for Smartcards in Level 3:

£000's	Setup	Year 1	Year 2	Year 3	Year 4	Year 5	Total
<b>Base Case</b>							
Cost	1,290	270	201	291	291	291	<b>2,635</b>
Benefit	0	357	408	459	510	561	<b>2,295</b>
Cashflow	-1,290	87	207	168	219	270	<b>-340</b>
<b>Payback</b>	<b>-1,290</b>	<b>-1,203</b>	<b>-997</b>	<b>-829</b>	<b>-610</b>	<b>-340</b>	

This shows that there is no positive payback within 5 years from implementing Smartcards for level three authentication services. However, as the following graph illustrates, there is a possible positive payback sometime thereafter (dependent on the benefits outlined above):



## 7. GOVERNANCE

The National Smartcard Authentication Project outlined 7 key issues regarding Governance, all of which should be taken into consideration when establishing and operating a Smartcard scheme:

1. **Project ownership:** There are three stages to any Smartcard project: Development, Implementation & Operational. The WLA must establish a clear chain of command in relation to management of the scheme's stages. Ideally, a project manager should take ownership of the project. This is particularly important if the partnership is made up of more than two bodies
2. **Physical Smartcard & reader issues:** The design of Smartcards and readers must be accessible, reliable and physically durable. The card issuer needs to exert overall quality control in these areas

3. **Accessibility:** Accessibility and social inclusion are key planks to any Smartcard scheme
4. **Technical standards:** Partners should develop series of technical standards relating to software applications to ensure that the system operates successfully. Nation-wide initiatives to establish smartcard standards have been launched; the Integrated Transport Smartcard Organisation (ITSO) has developed interoperability specifications for the transport industry. In addition, the local authority smartcard standards e-organisation (LASSeO) has been formed to look at these issues from a local authority perspective. Developments in this area should be closely monitored
5. **Voluntary vs. mandatory scheme:** Where a scheme is voluntary, card users should be given a genuine choice between using a Smartcard and the more traditional delivery methods
6. **Ownership:** It is essential that ownership of the Smartcard is established at the start of the project. This includes contractual negotiations with the card provider for the testing of the technology prior to terms of agreement. Governance arrangements are complicated enough when only one partner implements smartcards; when the partnership becomes multi-agency (with partners like TfL), then the ownership and governance issues become all the more critical
7. **Terms & conditions:** The terms & conditions will govern the relationship between Smartcard issuer and user and will need to cover:
  - a) Permitted uses and restrictions on use of the Smartcard
  - b) Data protection
  - c) Policies & procedures on lost or stolen cards
  - d) Relationships with secondary service providers

Recognition and consideration of all these issues is made all the more vital given the number of parties involved in the prospective Smartcard project in West London. The respective roles and responsibilities between the WLA, individual councils and TfL can be established through a formal review of the governance issues outlined above.

## 8. NEXT STEPS

Given the results of our analysis, there are three key next steps for WLA partners:

1. **Interrogate results:** In order that they get comfortable about assumptions made, WLA partners should spend time critically assessing and probing the results of our analysis
2. **Further research critical variables:** Our analysis took the best data currently available from WLA partners and other sources, but no primary research was carried out. Further research may therefore involve investigating the following, either through primary data collection or through the commissioning of further work:
  - **Debt collection:** TfL estimated a 3% improvement in revenue lost to fraud and bad debts as a result of introducing Oyster cards. Interviews with WLA

partners revealed expectation of only a 1% improvement. This is potentially very significant, as currently, the financial benefits of implementing smartcards are underwhelming

- **Economies of scale:** What discounts could WLA partners secure when bulk-buying smartcards, readers and top-up machines?
  - **Take-up:** What is take-up likely to be? Market research and some more examination of best practice would help to firm up these numbers
3. **Negotiate with TfL:** There are many issues that need to be resolved with TfL, as described in Section 4.3, including:
- How many additional Oyster users the WLA can deliver to TfL
  - How much each of these users is worth to TfL
  - What form any cost-sharing arrangement might take

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## 9. APPENDICES

### 9.1. Who we interviewed

We sought information from the following people during the course of the Smartcard project:

Name	Authority	Subject
Pacey Cheales	LB Hillingdon	Strategic drivers
Tony Ellis	LB Brent	Level 1 authentication services
Staveley Ferguson	LB Hammersmith & Fulham	Level 1 authentication services
Brian Silk	LB Hammersmith & Fulham	Level 1 authentication services
Gary Kears	LB Harrow	Strategic drivers
Gerard Gough	LB Hounslow	Strategic drivers, Leisure
John Anderson	LB Ealing	Strategic drivers
Rav Roberts	LB Brent	Strategic drivers
Mike Fahey	LB Hounslow (CIP)	Leisure
Helen Vincent	LB Hillingdon	Libraries
Judith Young	LB Brent	Parking
Dorothy Higginson	Smartex	Smartcard costs & benefits
John Defoe	LB Newham	Smartcard costs & benefits
Brian Taylor	LB Newham	Smartcard costs & benefits
Will Judge	TfL	Smartcard costs & benefits

## 9.2. Summary of interview questions

**Strategic Drivers:** We asked the following when interviewing WLA partners about strategic drivers for the Smartcard project:

1. Can you please give us a quick overview of what you know about Smartcards?
2. Have you ever run any consultations on the possibility of having Smartcards within your area? Or have you considered the possibility? If yes, could you tell us more?
3. Do you know of any other councils or perhaps government organisations in other countries that use Smartcards? If so, what is good about them? What would you like to see imported into this project?
4. Are you excited at the opportunity this project may provide to be innovative? The card could eventually become a common platform for access to other services, such as health, that may be outside your authority's remit.
5. Obviously, implementing Smartcards is NOT a low-risk project. Which of the following risks do you think could apply to this project? (Tick as many as are applicable: customer expectations; political; financial; legal & governance; lack of partnership cohesion; technical; capacity & commitment)
6. Which of the following strategic goals most drives your authority's eagerness to use Smartcards? (Social inclusion; community leadership; government policy; meeting citizen demand; integrated services; economies of scale; cross-boundary services)
7. What is your overall vision for Smartcards? Which services do you envision being made available & why?
8. Which of the following do you think will emerge as the priority transactions during this project and why? (Tick as many as may apply.) How might we back up your conclusions with data? (Libraries; leisure; school meals; benefits; parking; social services)
9. Please rank the following potential benefits of Smartcards in order of importance (1 being the most important and 6 being the least important) – (Cash-flow; reduced transaction costs; rationalising systems; staff time savings; efficiencies in the back office; public relations)
10. Do you think there is a commercial opportunity to exploit with Smartcards; such as advertisement, promotion of tourism etc.?) How significant do you think that this opportunity may be?
11. How do you think Smartcards will improve current processes?
12. Do you have any other questions about either our role or the proposal we wrote?

**Services:** We asked Judith Young, Helen Vincent and Mike Fahey the following questions about parking, libraries and leisure respectively:

1. How many service facilities do you have in your borough? (This will tell us roughly how many Smartcard readers are required)
2. How many staff work in the delivery of these services?
3. What is the average wage of these staff?

4. Very approximately and roughly, how long do staff currently spend processing transactions in your service area?
5. By approximately how much time might this processing decrease if Smartcards were introduced?
6. How many transactions do you currently handle? (i.e. service users)
7. What systems do you currently have for the processing of transactions? (i.e. number of systems)
8. How many of these will probably require integrating with Smartcard readers?
9. Will staff currently working in your service area require training on the new system? (Y/N)
10. Apart from readers, do you think that any other pieces of hardware will be required? (Tills, computers etc.)
11. If new hardware is required, how much will be needed? Approximately how much will this cost?
12. What are the costs of maintaining the current system(s)?
13. Are these maintenance costs likely to decrease with the introduction of Smartcards? If so, by approx. how much?
14. How much revenue does your borough currently take from this service area?
15. What are the current processes for handling cash? Very approximately, how long does this take? How might this change with the introduction of Smartcards? (Will it take less time to reconcile systems?)

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### 9.3. Authentication levels

**Authentication:** The process by which an electronic identity of a user is asserted to, and validated by, an information system for a specific occasion using a credential issued following a registration process. It may also involve establishing that the user is the true holder of that credential, by means of a password or biometric

*Source: National Smartcard Authentication Project*

The National Smartcard Authentication Project defines three levels of citizen authentication. Each level relates to the degree of damage that could arise from misappropriation of electronic identity during the transaction:

- **Level 0: No damage** – misappropriation causes no financial loss or inconvenience, and no risk to personal safety
- **Level 1: Minor damage** – misappropriation causes only a minor financial loss or inconvenience, and no risk to personal safety
- **Level 2: Significant damage** – misappropriation causes a significant financial loss or inconvenience, but no risk to personal safety
- **Level 3: Substantial damage** – misappropriation causes a substantial financial loss or inconvenience, or a risk to personal safety

The actual distinction between each stage comes down to the interpretation of the words "minor", "significant" and "substantial".

## 9.4. Level 1 authentication services

In order to arrive at a list of level one authentication services offered by West London boroughs, we took some previous work we had done with an authority in the South-West to map authentication levels to council services and updated it by interviewing staff at the London Borough of Hammersmith & Fulham. The following 205 services were classified as requiring level one authentication:

### CONSULTATION

#### DOCC

- Best Value or CPA - performance information
- Civil emergencies - Trauma Support Service
- Customer satisfaction surveys
- Town twinning

#### ENVIRONMENT AND PROPERTY

- Abnormal loads
- Accommodation certificates (fitness for human habitation)
- Archaeological consultancy
- Fair rents inspection - homes in multiple occupation
- Food business - health promotion
- Local plan - minerals
- Local plan - waste
- Parking bay
- Planning business
- Planning policies - transport policy
- Pollution control - asbestos
- Pollution control - construction information
- Property demolition - regeneration service - properties affected
- Public rights of way - general
- Spillage - roads

#### FINANCE

- Discount
- General information (incl. valuation, arrears, refunds)

#### HOUSING

- Advice for young people
- Existing council tenancy
- Home modernisation - council properties
- Housing repairs - rechargeable repairs
- Security services
- Supported tenancies
- Young people's drop-in activities
- Young people's organised activities

## CONSULTATION CONT.

### OTHER SERVICES

Abandoned vehicles  
Activities for older people  
Bereavement  
Burial  
Coaching courses and schools  
Commercial waste - clinical waste disposal  
Commercial waste - disposal sites  
Commercial waste - special trade collections  
Countryside volunteers  
Cremation  
Events  
Fishing  
Flytipping  
General information  
General information (location, facilities etc.)  
General information and booking  
Graffiti  
Grass cutting  
Horticultural standards  
Household waste - disposal sites  
Household waste - garden waste  
Household waste - special collections for large items  
Household waste - collection  
Household waste - domestic bins  
Independent funerals  
Municipal funerals  
Ordering a memorial  
Play facilities  
Public conveniences  
Recycling - bags  
Recycling - collection sites  
Recycling - composters  
Recycling - general information  
Sports employment  
Sports facilities  
Sports pitches/courts  
Street cleaning programme  
Street litter [incl. street sweeping]  
Street litter bins  
Vandalism  
Visitor centres

## CONSULTATION CONT.

### SOCIAL SERVICES

- Alcohol advisory service
- Benefits and bills
- Help leaving hospital
- Respite care for children
- Welfare rights

## APPLICATIONS

### DOCC

- Complaints - procedure
- Co-operative development
- Major emergency incident
- Sale of sundry items and publications

### EDUCATION

- After and/or before school childcare
- Nursery school places
- Paid work or work experience and school aged pupils
- Parents centres
- Performance/stage licences for school age children
- Primary school places
- Private nurseries - nursery grants
- School governors
- Secondary school places
- Services for childminders
- Special educational needs (SEN) - assessment
- Special educational needs (SEN) - disabled students allowance
- Special educational needs (SEN) - placement in mainstream schools

### ENVIRONMENT AND PROPERTY

- Advice to business
- Advice to consumers
- Animal - fouling
- Animals - dead
- Archaeological consultancy
- Building control
- Catalogue - searches, availability and reservations
- Children's library service
- Conservation and urban design planning - conservation advice
- Conservation and urban design planning - tree preservation orders
- Dropped kerbs /crossover
- Environmental health training
- Fair rents inspection - homes in multiple occupation
- Flyposting

## APPLICATIONS CONT.

Food business - food safety regulations  
Food business - health promotion  
General arts information (inc. location, events)  
Health and safety - occupational health services  
Instrumental tuition  
Internet computers  
Library facilities (incl. location, opening hours)  
Licence - weighbridge operator  
Lighting - street lights  
Lighting - traffic lights  
Local plan - minerals  
On street parking enforcement - wheel clamps - car removal  
Ordering service  
Pavements  
Pavements (including dangerous paving)  
Paving stone - theft  
Pest control  
Planning - residential  
Planning business  
Pollution control - Clean Air Act approval  
Potholes  
Road adoption  
Road markings and signage - street name plates  
Roads - school crossing patrols  
Roads and highways - access requests  
Roads and highways - flooding (drains and gullies)  
Roads and highways - obstructions  
Roads and highways - works  
Spillage - roads

### FINANCE

General information (incl. valuation, arrears, refunds)  
General information (incl. valuation, arrears, refunds)

### HOUSING

Care/scan/community alarm services  
Council housing - nuisance/threatening behaviour  
Garden maintenance  
Housing allocations - allocation points  
Housing allocations - general information  
Housing allocations - hard to let/easy access properties  
Housing repairs - communal areas  
Introductory tenancies  
Residential study centres

## APPLICATIONS CONT.

- Sheltered and supported housing
- Supported tenancies

## LAW AND CORPORATE GOVERNANCE

- Births historical searches
- Data Protection Act
- Elections - proxy votes
- Elections - voting
- Freedom of Information Act
- Involvement with budgetary process
- Marriages historical searches
- Witness support

## OTHER SERVICES

- Abandoned vehicles
- Coaching courses and schools
- Conservation and urban design planning - tree management
- Flytipping
- General information (location, facilities etc.)
- General information and booking
- Graffiti
- Grass cutting
- Horticultural standards
- Household waste - garden waste
- Household waste - special collections for large items
- Household waste - domestic bins
- Lighting - council communal flats
- Public conveniences
- Recycling - bags
- Street litter [incl. street sweeping]
- Street litter bins
- Vandalism

## SOCIAL SERVICES

- Support groups and organisations
- Support groups and organisations

## BOOKINGS

### ENVIRONMENT AND PROPERTY

- Children's library service
- General arts information (inc. location, events)
- Library facilities (incl. location, opening hours)
- Ordering service

### HOUSING

- Hall /venue bookings

## **BOOKINGS CONT.**

Young people's drop-in activities

### **LAW AND CORPORATE GOVERNANCE**

Wills and testaments

### **OTHER SERVICES**

Activities for older people

General information and booking

Independent funerals

Municipal golf courses

Sports clubs

Sports pitches/courts

### **SOCIAL SERVICES**

Advocacy for social services clients

Alcohol advisory service

Home care

Mobile meals (meals on wheels)

## **PAYMENTS**

### **DOCC**

Sale of sundry items and publications

### **OTHER SERVICES**

General information and booking

## **E-FORMS**

### **EDUCATION**

Educational awards and benefits - free school meals

### **HOUSING**

Parking permits (blue badge)

Rail card

### **MISCELLANEOUS**

Corporate Complaints/comments

Data Protection Act

### **SOCIAL SERVICES**

Adult carers

Equipment and adaptations to the home

Home assessment

Mobile meals (meals on wheels)

Occupational therapy

Respite care

## 9.5. Smartcard technology

There are two main types of Smartcard technology available to the WLA: Mifare® cards and java-based cards. The use of either has its own inherent advantages and disadvantages, summarised in the table below:

	Mifare cards	Java-based cards
Meets priority outcome G12	✓	✓
Oyster ticketing	✓	✗
Suitable for Government Connect	✗	✓
Inexpensive cards	✓	✗
Contact interface	✗	✓
Contact-less interface	✓	✓
Low security applications (libraries etc.)	✓	✓

Therefore, the main reasons to use Mifare cards:

1. **Java-based cards are currently too expensive:** Even though they only cost 80p per card, the business case for moving forward with Mifare cards is border-line at best. Java Smartcards are over £4 each; at that price there is no business case, as yet, for such higher-end Smartcards
2. **Virtually all citizen needs are covered by Mifare cards:** The vast majority of citizen needs, ranging from low value payments to verification of identity, are covered by Mifare cards
3. **Working with TfL:** If the WLA is to work in partnership with TfL then Mifare is the only option. Oyster ticketing is currently incompatible with Java technology platforms and this is unlikely to change in the short-run as it involves the Oyster application being ported onto Java cards

The major disadvantages of Mifare cards (described below) are not considered significant enough to outweigh the advantages:

1. **Unsuitable for higher security functions:** Many in the Smartcard industry feel that the Mifare platform is too basic to deal with applications that involve a significant amount of risk, such as benefits, payments above £80<sup>8</sup> and social care information. This also means that Mifare cards are incompatible with Government Connect
2. **Incompatible with contact readers:** Mifare cards only work with contact-less readers

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<sup>8</sup> The maximum value of money currently allowed to sit in an electronic purse, according to industry opinion

## 9.6. Smartcard benefits in detail

- **Red** - Cashable benefits. Typically, these are the cost savings resulting directly from the implementation of Smartcards
- **Amber** - Non-cashable benefits. These are usually staff time savings that may require further management action to be realised
- **Green** – Qualitative benefits. These are the benefits like social inclusion that, while important to the success of a project, are hard to quantify from a financial perspective

Red benefits	Amber benefits	Green benefits
<p><b>Cash-flow:</b> Citizens can use their Smartcards to pre-pay for council services before they are delivered. This means that more interest can be earned on cash balances</p>	<p><b>Staff time savings:</b> Smartcards will mean staff spend less time “paper-chasing” and taking payments from citizens due to self-service</p>	<p><b>Social inclusion:</b> Smartcards may bolster social inclusion in that they conceal whether citizens enjoy concessionary rates for certain public services</p>
<p><b>Reduced transaction costs:</b> Fewer staff will be needed to handle cash if citizens pre-pay for services with their Smartcards. This will lead to an overall reduction in the cost of transactions</p>	<p><b>Efficiencies in the back office:</b> Smartcards will offer an opportunity to make back-office systems and processes more efficient</p>	<p><b>Public relations:</b> Councils that have Smartcards and allow citizens to serve themselves are increasingly seen as technology-savvy</p>
<p><b>Increased debt collection:</b> Smartcards offer citizens a more convenient means of paying for council services. This, along with the possibility of subtracting owed balances from their e-purse, means that the collection of sundry debts should increase</p>	<p style="font-size: 48px; opacity: 0.3; transform: rotate(-45deg);">COPY</p>	<p><b>Branding:</b> Offering pan-London services in West London will offer a more joined-up approach to delivering public services</p>
<p><b>Economies of scale:</b> Spreading the set-up costs among the WLA partners will mean lower costs overall</p>		<p><b>Better management information:</b> Smartcards will allow better management information to be collected. Citizen profiling and more sophisticated marketing will result from the increase in data quality</p>
<p><b>Reduction in fraud:</b> Smartcards offer a convenient means of validating that citizens are who they say they are. This may result in a reduction in fraud and therefore an increase in revenue</p>		<p><b>External agency benefits:</b> The use of Smartcards may increase the leverage partners have with organisations like private-sector leisure providers, to negotiate discounts and concessions for its citizens</p>

<p><b>Rationalising systems:</b> Using the Oyster card as a universal Smartcard will mean that fewer cards will have to be issued overall and will also offer an opportunity to integrate systems</p>		<p><b>Brand awareness:</b> Coverage and penetration of the oyster card is already significant; building on this recognition is an obvious benefit</p>
<p><b>Savings in consumables:</b> Less money may have to be spent on paper invoices, electricity, office supplies and other such consumables</p>		<p><b>Risk-sharing among the WLA partners:</b> While introducing Smartcards is definitely NOT low-risk, the risks are lessened by undertaking the project in partnership</p>
		<p><b>Citizen desire to complete transactions electronically</b></p>
		<p><b>Meeting priority outcome G12</b> by the deadline of April 2006 and also other central government targets, such as Gershon</p>
	<p>COPY</p>	<p><b>External and internal customer satisfaction:</b> Citizens and staff alike should be more satisfied with service delivery once Smartcards have been introduced</p>
		<p><b>Development of another access channel:</b> Smartcards are another means for citizens to interact with their council</p>
		<p><b>Strategic partnership with TFL:</b> WLA can tap into the purchasing power of TFL</p>
		<p><b>Cross-boundary public services:</b> Citizens will be able services in neighbouring authorities with a minimum amount of fuss. This may increase the overall number of citizens accessing public services such as leisure facilities</p>
		<p><b>Olympics:</b> Smartcards fit in with the image and spirit of the Olympics</p>

## 9.7. Meeting the brief

Stream / stage	Requirement	Activities	Met?
<b>Statement of strategic drivers</b>	<i>Clear statement of the strategic drivers for WLA partners proposed use of smartcards (local and national priorities, social inclusion, community leadership, Gershon AES etc').</i>	<ul style="list-style-type: none"> <li>• Face to face interviews with representatives from each Authority</li> <li>• Desk research re. national implementation of smart cards by Local Authorities including transactional uses and strategic benefits</li> <li>• Write up, distribute &amp; incorporate feedback</li> </ul>	✓
<b>Identification of categories of benefit</b>	<i>Identification of broad categories of cash, non-cash and intangible benefits anticipated from smartcard deployment (ie using a simple but effective "traffic light" categorisation).</i>	<ul style="list-style-type: none"> <li>• Meeting with lead officer (Pacey Cheales) to identify benefits of smart cards using the Hillingdon traffic light model</li> <li>• Write up and test against internal RSe business case templates for further categories</li> </ul>	✓
<b>Identification of priority transactions</b>	<i>Identification of the top priority transactions (ie 5-10) for deployment via smartcard (using service volumes, costs, take-up levels etc' as basis for determining initial selection).</i>	<ul style="list-style-type: none"> <li>• Develop criteria list for what makes a priority transaction for smartcards; e.g. cost, volume, complexity of implementation</li> <li>• Test it against a full service list based on the I&amp;DeA toolkit</li> <li>• Collate any additional information required from partners<sup>9</sup></li> <li>• Test list with TfL to ensure that the priority transactions would be easy to implement on the existing oyster card platform</li> </ul>	✓
<b>Cost-benefit analysis</b>	<i>Develop the top line financial aspects of the business case for a smartcard deployment – for one or more of the priority transactions (ie including top line total cost of ownership, cash, non-cash efficiency gains, breakeven and ROI analysis). This work will seek to identify in broad terms the scale of the gains achievable by working in partnership to share costs and risks to maximise benefits.</i>	<ul style="list-style-type: none"> <li>• Collate and review data of current baseline and expected savings / non cashable benefits</li> <li>• Detailed research into the TfL model</li> <li>• Identification and notification of additional data requirements from partners and TfL to complete business case (e.g. cash flow figures)</li> <li>• Build business case based on Brent-RSe ROI model dependant on different scenarios (e.g. different numbers of partners coming on board, different 'suites'</li> </ul>	✓

<sup>9</sup> This data is in addition to the template already sent out to partners though hopefully shouldn't be a significant amount

Stream / stage	Requirement	Activities	Met?
		<ul style="list-style-type: none"> <li>of transactions)</li> <li>Results tested by RSe staff and WLA partners</li> </ul>	
<b>Analysis of governance requirements</b>	<i>The business case will also need to address the governance and business model issues relevant to the use of TfL smartcard – ie who owns the card, what are the respective roles and responsibilities between WLA, individual councils and TfL.</i>	<ul style="list-style-type: none"> <li>Prepare, distribute and amend document on governance / accountability requirements; this output will be based on the initial partner interviews and insight picked up during the project</li> </ul>	✓ <sup>10</sup>
<b>Development and delivery of final outputs</b>	<i>Deliver final outputs</i>	<ul style="list-style-type: none"> <li>Write up of Draft Business Case for using TfL Oyster card for Council services</li> <li>Proactively collate feedback from all partners including views on the implications of the findings</li> <li>Incorporate feedback into the final document</li> <li>Discuss implications of numbers being produced by the ROI model with partners at board meeting</li> </ul>	✓

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<sup>10</sup> We did capture the major governance issues from implementing smartcards in partnership in this report but, due to the delivery of a detailed interim report (not in the original brief) we did not produce a separate document on governance

## 9.8. TfL Partnership Scenario

This table demonstrates the differences between the best-case partnership scenario and the TfL best-case scenario

Area for negotiation	Optimistic forecast	Included in best-case scenario	Included in TfL best-case scenario	Reason
Materials costs	The WLA can use spare capacity on a revamped Oyster card and incur no card costs	x	✓	Although TfL has given no indication that this is viable in the short-term, we included it in the TfL best-case scenario
Admin costs	The WLA can use spare capacity on a revamped Oyster card and incur no admin costs	x	✓	Although TfL has given no indication that this is viable in the short-term, we included it in the TfL best-case scenario
Systems integration costs	50% reduction in the cost per integrating one system	x	✓	We assumed that TfL would bear around 20% of the cost of integrating one system
Smartcard take-up	5% increase on base case assumption of 10% take-up in year 1 due to Oyster functionality on the card	✓	✓	Any percentage increase larger than this would be very optimistic
Cost of readers	20% reduction in the purchase price of readers due to procuring with TfL	✓	✓	Joint procurement is unlikely to secure larger discounts than 20%
Legal costs	50% reduction in legal costs through presence of TfL as partner	✓	✓	This is an optimistic forecast but was included due to the relative immateriality of legal costs
Marketing costs	50% reduction in marketing costs through presence of TfL as partner	✓	✓	See above entry for legal costs