This paper will be considered in public

1 Summary

1.1 This paper provides the Panel with an overview of our programme to improve payment services for customers and deliver substantial cost reductions.

2 Recommendation

2.1 That the Panel notes the paper.

3 Background

Smart ticketing development

3.1 Oyster, introduced to customers in 2003, has transformed ticket retailing and enabled fundamental improvements in our services and operating cost base at a time of huge demand growth. Today, over 90 per cent of journeys on public transport are paid for with a card, making London a world leader in making ‘smart cities’ a reality.

3.2 The use of ‘pay as you go’ (PAYG), where customers pay per journey up to a fare cap, has increased steadily since 2006 and now comprises 52 per cent of all paid TfL journeys.

3.3 In 2010, PAYG was extended to the National Rail network in London. This caused a further reduction in demand for ticket sales, as more customers switched from paper tickets to Oyster. A further extension to Gatwick Airport was made in 2015, enabling visitors to travel through Victoria station without needing to stop to buy a ticket from us.

3.4 Contactless payment cards were introduced on buses at the end of 2012. In 2014, this was extended to Tube and rail services and included a new weekly cap allowing customers to benefit from the same price as someone using a 7 day season ticket. Contactless payments now account for two in every five PAYG journeys and are growing rapidly.

3.5 We have worked with Apple, Android Pay from Google, Barclays and Samsung to ensure that the experience of using a phone to pay for travel is optimal. Mobile payments now account for nearly 10 per cent of contactless payments.
3.6 The Revenue Collection Contract was awarded to Cubic in 2015 and will run to 2022 with an optional three year extension. The core operating costs of the contract have reduced by around 30 per cent compared to the original Prestige PFI contract which delivered Oyster.

3.7 As a consequence of all this the average number of journeys per sales transaction has risen from four in 2003 to nearly 12 in 2016. This has brought the daily sales demand down to around 1m today where otherwise it would now be over 2.5m:

(a) PAYG demand now exceeds demand for season tickets. Over the last year, sales at Oyster Ticket Stops have fallen by around 20 per cent for Bus and Tram Passes and by around 10 per cent for Travelcard season tickets;

(b) only two per cent of our rail journeys are made using single tickets;

(c) paper tickets account for less than 10 per cent of all journeys, with many of these issued by Train Operating Companies;

(d) the cost of revenue collection has fallen from 14.3 per cent of revenue in 2005/6 to 9.2 per cent in 2015/16. We predict that this will fall to 7 per cent once the effects of the further improvements described in this paper are felt; and

(e) the evolution of payment services has enabled buses to stop accepting cash and has been critical to ensuring that the modernisation of Tube stations could meet its objectives by reducing demand for ticketing transactions.

4 Planned Improvements

On-line/mobile transactions

4.1 Big changes are about to be made. Approximately one per cent of our sales are currently made online. The barriers to purchasing online include the need to nominate a station at which to collect the purchase and waiting overnight for it to be available. Bus customers are effectively excluded from online. From later this summer, online purchases will be available for collection at any station and will be available for collection 30 minutes after the order is placed.

4.2 We will be introducing additional online security features which will make it harder for unauthorised mobile apps to “scrape” our website. These apps, over which we have no control, require customers to give them their login details. This is in breach of our Terms and Conditions.

4.3 Also in the summer, we will launch the TfL Oyster and Contactless mobile app. This is currently in a user pilot with around 900 customers and staff. Key features of the app include:

(a) free to download from Apple and Android stores;
(b) notifications to alert customers when their PAYG balance is running low or their season ticket is about to expire;

(c) notifications when a Maximum Fare has been applied, making it easier to obtain a refund;

(d) journey and charging history available in the app; and

(e) Top-up PAYG or buy a season ticket in two simple steps.

4.4 From the autumn, we will extend the mobile and online proposition to bus customers, enabling them to top-up their Oyster card without the need to go to an Oyster Ticket Stop first. This forms part of a wider push to promote greater use of London’s extensive bus service.

4.5 There will be new notifications for contactless payment customers in the app from early 2018. As well as the same maximum fare notifications as for Oyster customers, we will be able to alert contactless payment customers if their card has been declined by their issuer.

4.6 Some older (generally pre 2010) Oyster cards will not work with the new app. We will make it easy for these customers to either switch to contactless or swap their card for a new one in order to use the app via a dedicated page on the website. This will help to drive a migration away from these cards, which do not have the same security features as newer Oyster cards.

**Weekly capping on Oyster**

4.7 In 2018, Oyster customers will benefit from weekly capping, aligning the Oyster proposition with that already in place for contactless. This will allow us to promote PAYG more heavily as the payment method of choice, thus achieving greater fares transparency and improving social inclusion.

4.8 Weekly capping for Oyster customers will, in part, be delivered by processing Oyster journey data through the modern, sophisticated systems that calculate fares for contactless customers. This, combined with the system that will allow improved distribution of top-ups to readers for collection, will result in a significant improvement in our ability to refund Oyster customers automatically when they have accidentally incurred a maximum fare, enabling further savings to be made in customer support operations.

**The Bus Hopper**

4.9 In 2018, we will deliver the final phase of the Mayor’s Bus Hopper, enabling customers to benefit from paying a single bus fare when making unlimited bus journeys within an hour (this benefit is currently limited to one transfer).

**List of appendices to this report:**

Appendix 1 Ticketing: improving the customer proposition and driving down cost slide presentation.
List of Background Papers:

None

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Ticketing: Improvements for customers and driving down costs
Purpose

1. To describe what we are doing to:
   • Improve the customer proposition for payment of fares
   • Deliver substantial cost reductions
   • Support the safe and reliable operation of our transport services
   • Generate revenue

2. To highlight the timing of the programme and its outcomes as part of delivering our Business Plan
Innovation through time

2003
• Annual & monthly seasons on Oyster

2004
• PAYG launched

2005
• Daily capping
• Weeklies mandated to Oyster

2006
• Oyster/cash price differentials

2010
• Oyster PAYG on National Rail

2012
• Contactless on bus

2014
• Cashless bus
• Contactless on rail

2015
• Fit for the Future - Stations
• PAYG extended to Gatwick Airport
Smart revolution

Smart Ticketing on Bus & LU

Underground journeys by ticket type – 86% Oyster/CPC

- Oyster PAYG 32%
- Oyster Seasons 28%
- Printed Seasons 4%
- Day Tickets 7%
- Cash 2%
- CPC 19%
- Staff & staff assisted 1%
- Freedom Pass & 60+ Pass 5%

Bus journeys by ticket type – 92% Oyster/CPC

- Oyster PAYG 19%
- Oyster Seasons 35%
- Freedom Pass, 60+ & ENCS 15%
- Staff etc 1%
- Printed Seasons 1%
- Child non-Oyster 7%
- Day Tickets 1%
- Free Child (Oyster) 12%

Oyster as % of total fare payer journeys
Contactless as % of total fare payer journeys
Total Smart ticketing
Changing nature of demand

PAYG and Season Ticket Trend

Ratio of Journeys to Purchase Events
Future Ticketing objectives

1. Improve the customer proposition
   • Easier to self-serve
   • More automated refunds
   • Make low-cost channels easier to use

2. To reduce the cost of sale
   • Commissions
   • Issuance of Oyster cards

3. Reduce dependency on bespoke legacy systems
# Oyster/Contactless comparison

<table>
<thead>
<tr>
<th>Contactless</th>
<th>Improvements to bring Oyster into line</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Fare due to customer error</td>
<td>Identified and resolved prior to charge being finalised</td>
</tr>
<tr>
<td>Weekly Tickets</td>
<td>Weekly Capping guarantees best value</td>
</tr>
<tr>
<td>Capping</td>
<td>Considers all possible Extension Fare options</td>
</tr>
<tr>
<td>Fare calculation</td>
<td>Fares finalised at the end of the day so all journey history is considered</td>
</tr>
<tr>
<td>Buying travel</td>
<td>No purchase required. Just touch your card and travel</td>
</tr>
</tbody>
</table>
Scope of improvements in 2017/18

- Faster Universal Load – online purchases available after 30 minutes on all modes
- TfL Oyster and Contactless app
  - Sales
  - Notifications/alerts
  - Journey history making charges easier to access for contactless users
- Weekly capping for Oyster customers
- Multiple Bus Hopper
- Automated refunds delivered faster and with improved collection rate

Objective is to reduce commissions on sales by encouraging online purchases
Business Case

Business Case Outcome

- £42m capex
- Business case dominated by net reduction in cost of commission for season ticket sales at Oyster Ticket Stops - net savings over capital costs of about £103m
- Also revenue generation from reduced journey times (£18m pa)

Underlying Assumption

All season tickets currently sold at Oyster Ticket Stops will migrate to other products and channels over 5 years
## Deliverables

<table>
<thead>
<tr>
<th>Target Date</th>
<th>Deliverable</th>
<th>Confidence Level</th>
<th>Risks &amp; Dependencies</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2017</td>
<td>Existing Oyster Online sales delivered to all stations and within 30 minutes</td>
<td>High</td>
<td>• Rail reader release in June</td>
</tr>
<tr>
<td>August 2017</td>
<td>App available in Apple and Google Play stores. Sales restricted to Rail delivery only</td>
<td>High</td>
<td>• Improvement in online sales delivery above 1st Generation Oyster Cards (see slide 14)</td>
</tr>
<tr>
<td>October 2017</td>
<td>Online and app sales available for collection on buses</td>
<td>Medium-High</td>
<td>• Bus reader update</td>
</tr>
<tr>
<td>January 2018</td>
<td>Contactless notifications available on the app</td>
<td>Medium-High</td>
<td>• IR35 resources impact</td>
</tr>
<tr>
<td>January 2018</td>
<td>Refunds (e.g. Autofill) start to be collected from any station</td>
<td>Medium</td>
<td>• Tight programme to have back office processing ready</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Ability to split out from Weekly Capping delivery</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Increased demand from PAYG growth</td>
</tr>
<tr>
<td>Spring 2018</td>
<td>Multiple Bus Hopper</td>
<td>Medium</td>
<td>• Bus reader update</td>
</tr>
<tr>
<td>Summer 2018</td>
<td>Weekly capping for Adult rate PAYG on Oyster</td>
<td>Medium</td>
<td>• New reader software</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• FTP back office will be ready</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Alternative launch options being explored</td>
</tr>
</tbody>
</table>
App security

• Security review undertaken by KPMG and NCC
• All items identified needing addressed either on completed or on target for completion prior to customer launch
• Further independent review taking place prior to Go/No Go decision for app launch
• Cyber Security team fully engaged in on-going security monitoring
• Approach endorsed by IIPAG
Pilot feedback

Positive Feedback

• App is easy to use and design is simple
• Ability to show balance and then top-up easily
• Travelcard expiry date is shown
• 30 minute pick-up time. No more need to queue at ticket machines
• Customers feel more in control

Suggested improvements

• A receipt for purchases. This will be available at Customer Launch as an email
• Enabling customers to set their own low balance notification threshold. This is planned, but we first need to understand customer behaviours to configure this correctly
• Integrate Journey Planner, rather than being taken out to the website. We are exploring the options for how best to do this
3rd Party Oyster / TfL apps on app store

- Oyster Oyster and Contactless
- London Oyster Contactless
- Oyster Balance & Refund
- Oyster on the Go!
- Oyster Mate
- London Oyster Contactless
- Oyster Reader
- London Traveller
- Oyster Balance
Online security

Look & Feel
- Many apps look like Oyster
- Have T&Cs which require signing up to
- Clearly state nothing to do with TfL, but evidence suggests users don’t realise this

Screen scraping
- Many apps screen-scrape Oyster Online
- Reputational risk to TfL; direct risk to user in passing account details to unknown 3rd party
- Sales are “unapproved” but believed to be low volumes
- Believed to be between 200k and 2m app downloads

Actions
- Engage with app developer community on our branding guidelines
- Introduce new firewall to make screen scraping more difficult before online improvements in July
- This is in-line with new Cycle Hire website design
- This will prevent most unofficial apps from working
1st Generation Oyster cards

• Some cards issued before 2010 will not support new app sales proposition
• Customers will be encouraged to switch to contactless to fully benefit from our future proposition
• Customers who want to continue to use Oyster and use the App will be able to request a new card online and transfer products from their old card at no cost
  • Display a 1st Generation card-specific notification / link on the “My Oyster Cards” page
  • Provide a dedicated “migration” page with advice and facilities to help customers who wish to upgrade their card.
Appendix: Cost of Revenue Collection
Cost of Revenue Collection

Costs reduced by:

- New contract regime (twice)
- Cashless bus
- Introduction of contactless
- Reduction in cost of Oyster cards
- Reduction in commissions paid to Oyster Ticket Stops
- Reduction in Merchant Service Fee
- Reduced station staff costs (Fit for the Future – Stations)
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