

Transport Committee – 18 March 2015**Transcript of Agenda Item 5 – Future Ticketing**

Caroline Pidgeon MBE AM (Chair): The bulk of the session is going to be on future ticketing, and I would like to really welcome Shashi Verma back before the Committee, you have a grand title now, Director of Customer Experience Welcome, Shashi, you have been before us many times before, so thank you for coming today. Then Mike Tuckett, who is head of Transformation Delivery at Transport for London (TfL), leading on the ticketing area and future developments.

I am going to kick off with a very straightforward question, but maybe just a bit of scene setting. Could you tell us what is TfL's vision for ticketing? What differences are passengers going to see in the next year to five years' time, say?

Shashi Verma (Director of Customer Experience, Transport for London): TfL's overall vision for ticketing is that customers need to pay us a fare and that process has to be as unintrusive as possible for customers and as painless as possible.

Many years ago, in the early days of Oyster we could see the benefits of Oyster already. However, what we realised was that despite the fact the Oyster card had made life more convenient for customers and there was less need to buy tickets, less need to queue and so on and so forth, fundamentally the business model was very similar to what we have had for more than a century now, which is that you have to arrive at the station, or arrive on the bus, change your money for our money and then you are allowed to travel. We realised back then that there was an opportunity to take away that process of money changing, because that money changing has this whole attribute called a ticket, but in the mass transit environment it is not really a ticket it is just a micropayment.

What we have been looking for is a means of making that process of collecting a payment easier and faster. That is why we went down the path of starting to accept contactless bankcards, because that is one technology that allows customers to have an experience of paying for transport which is very similar to the experience of paying for anything else. You do not need to do anything special when you arrive at a supermarket, you do not need to do that when you arrive at John Lewis, why is it that you need to do something different when you use transport? The work we have done over the last few years has really been to try to take away that step of having to change your money. The evidence is very clear in the success of the bankcard system that we launched last year.

Having said all of that, we do recognise that there are people for whom the bankcard is not the right answer. There will always be people who either do not have a bankcard or do not want to use one. The first category of people who do not have a bankcard are children, so we know that we always have to provide a solution for those people who either do not have a bankcard or do not want to use one. In the future we will end up with a mix of acceptance of third-party products, like bankcards, but also the provision of a TfL product, which allows people to travel if they do not want to use a bankcard. That is kind of where we are going with this. To the extent possible, either with our cards or with somebody else's cards, to the extent possible, the aim here is to try to make the process of paying for transport as easy as possible.

Caroline Pidgeon MBE AM (Chair): In five years' time there will still be two types of system, we are going to get into the detail a bit later.

Shashi Verma (Director of Customer Experience, Transport for London): Yes.

Caroline Pidgeon MBE AM (Chair): There will be contactless, using bankcards and there will be another system for people, children and others?

Shashi Verma (Director of Customer Experience, Transport for London): Absolutely.

Caroline Pidgeon MBE AM (Chair): That is very clear. You said this is about people changing their money for your money, so your currency as it were.

Shashi Verma (Director of Customer Experience, Transport for London): Yes.

Caroline Pidgeon MBE AM (Chair): Is that the main reason for changing, just to make it simple for passengers, or is this actually more about finance and the cost of it?

Shashi Verma (Director of Customer Experience, Transport for London): All these things are interconnected. If the aim is to make life simpler for customers and take away unnecessary steps in the process of travel, then it clearly reduces the cost as well. It costs us money to provide this money exchange; the ticket machines and all the infrastructure behind the infrastructure of the Oyster card itself. All of that is expensive to run. We feel quite proud of the fact that we keep looking for cheaper ways of doing the same task, which is what we have done here. Very clearly this is being done because it can save money.

The reason for success of the system, without pushing anyone into it, is that people find it a more convenient means of paying for transport.

Caroline Pidgeon MBE AM (Chair): OK, that is helpful. Obviously when you came before us previously, you recall we did a large piece of work a few years ago looking at the future ticketing programme. We are now starting to make our way through that programme. It is clearly about two years behind schedule really, is it not? Because by 2015 we expected to be at phase 5. You had 1 to 5 stages where you were going to be decommissioning Oyster as we know it and looking at the next generation Oyster. Why has there been this slippage and what implications are there for having a delay to this programme?

Shashi Verma (Director of Customer Experience, Transport for London): We have to acknowledge right at the very beginning that we are developing new technology that does not exist anywhere in the world. This is pure research and development activity, led by a public sector organisation that is not expected to do these things, in London. If you look at the kind of stuff that we are doing, this is what is expected of a Silicon Valley based company, and we are developing things that would otherwise have been done in Silicon Valley. I think we feel quite proud of the fact that we have done that.

In the process of research and development you always find roadblocks. You have frankly no idea of the fact that you would encounter these roadblocks. If you had the idea then it would not be research and development, you would be doing something that is already known. There is no shortage of roadblocks we have come across. Trying to get the transport and finance industries to work together is not an easy thing. The transaction models that have had to be created specifically for transport, and the work that not just we have had to do but the banking industry has had to do is all very, very formidable. At the end of it we went

through an extended period of testing and piloting, so the system was actually up and running at the end of 2013, and I have been using my card since the end of 2013. We chose to test and pilot for about a year before we launched this to the public. In hindsight that was the right thing to do, because we do not want the system to fail when it is launched, especially when it involves people's money.

Caroline Pidgeon MBE AM (Chair): It has taken longer because you are testing. You are leading the way in this area. Are there any changes you are going to make to the project as a result of this? Technology moves on so quickly. When you first started thinking about this programme there may be new things out that you had not considered. Are you changing the project now because it is two years behind schedule?

Shashi Verma (Director of Customer Experience, Transport for London): I am not sure that we are changing things because it is behind schedule. Frankly, this is still a world-leading product.

Caroline Pidgeon MBE AM (Chair): It is an opportunity because you are two years off where you originally thought you would be that things may have changed.

Shashi Verma (Director of Customer Experience, Transport for London): What is clear, for example, is mobile payments are finally becoming successful. This is something that we have been waiting for years and years and years and it has never happened. You talk about a two-year delay and that was technology that was supposed to have come ten years ago.

Caroline Pidgeon MBE AM (Chair): Yes.

Shashi Verma (Director of Customer Experience, Transport for London): It is finally becoming useful. One of the things that we have been working on is to make sure that our system remains open to mobile payments. Just for clarity, we already accept mobile phones on the system. Unfortunately there are not that many of them out there, so we do not see huge numbers on our system, but we are accepting a few hundred phones every day.

Caroline Pidgeon MBE AM (Chair): You are adapting your plan because of the new technology coming on?

Shashi Verma (Director of Customer Experience, Transport for London): Completely. We have to keep an eye on the technology space in this area. One thing, having come ahead of the curve, is we do not want to be behind the curve ever.

Caroline Pidgeon MBE AM (Chair): Thank you for that. Mike [Tuckett] is there anything you wanted to add on the question so far?

Mike Tuckett (Head of Transformation Delivery, Transport for London): No, that is fine. I should maybe explain I work for Shashi and was responsible for the launch back in September, so perhaps if there are any points of detail about that I will chip in as needed.

Caroline Pidgeon MBE AM (Chair): We are going to get on to some technical stuff, I am sure, on contactless.

Mike Tuckett (Head of Transformation Delivery, Transport for London): Yes.

Caroline Pidgeon MBE AM (Chair): Right, let us move on to the ticketing options for passengers.

Richard Tracey AM: Can we drill a bit more deeply into what your plans are for the future? Caroline has already started to touch on it, but I think obviously the first question I must ask you is: do you plan, in the reasonably immediate future, to phase out both paper tickets and indeed Oyster? Because I think a good many of us would like to know that.

Shashi Verma (Director of Customer Experience, Transport for London): As far as Oyster is concerned, Richard, we have been very clear, repeatedly, in public that the Oyster is not going away. I made that clear this morning as well.

Richard Tracey AM: It is not going away?

Shashi Verma (Director of Customer Experience, Transport for London): It is not going away. There are people who either do not have a bankcard or do not want to use it. Our obligation is to provide a means of payment for everyone who uses our system. The Oyster card is here to stay. We have also been very clear that the Oyster card is now quite old technology and is in need of upgrading. When I say it is old technology, it is still more advanced than anything that is available anywhere else in the country. From our perspective it is 15-year-old technology and it needs upgrading. We have been very clear that we want to get the Oyster card system up to the same level of convenience as is offered by contactless bankcards. Right? Things like weekly capping and so on and so forth will become available on Oyster in the same way that they are available on contactless bankcards. That is not a small piece of work, by the way. You can imagine taking a large complicated information technology (IT) system that has been around for 15 years and migrating it into the future is quite a big thing.

The question of paper tickets is a different one. We would like to get rid of paper tickets. If you talk about obsolete technology that is technology from the 1960s. Although it was very fruitful when it first arrived, it is not productive in the intense environment of our transport system that we face today. There are two major problems with paper tickets that we find. One is that they are slow and when we are carrying almost thrice as many people as we used to, the fact that they are slow to go through the gate becomes a point of congestion by itself. The second problem that you find is that with the advent of electronic devices in everyone's pocket you keep a paper ticket close to your mobile phone for any length of time and it gets completely demagnetised and does not work anymore. Anyone who used National Rail in London will tell you that is a common experience. For those reasons we would like to get rid of paper tickets. We have shrunk the issuing of paper tickets from our system down to an absolute minimum. The vast majority of paper tickets on the TfL system are those that are issued by National Rail, and there the thinking remains very far behind.

Richard Tracey AM: Could I ask you what is the cost of collecting fares to TfL, when people are using both paper tickets and of course using Oyster? Presumably there are different proportions of costs, compared to the contactless card.

Shashi Verma (Director of Customer Experience, Transport for London): Yes. We have done benchmarking of our total cost of revenue collection for nearly ten years now. When we first did this in 2006 the cost of revenue collection was nearly 15% of the revenue. The last year in which we did this analysis, which was 2012/13, it was at 8.8%. That is a formidable reduction to 8.8%.

Although we have not put the effort in to do that benchmarking since then again, when we refresh that analysis, I suspect the numbers are going to come out significantly below 8.8%. Eventually, we want to get that number down to the lowest possible, which could be of the order of 6% of revenue. I do not think you

will find too many examples in the public sector of something being reduced from 15% down to 6%; a 60% reduction while the service is improving underneath it. Again, we feel very proud of the fact that we have done that.

Analysing the cost of revenue collection for paper versus Oyster versus contactless is a lot harder. Not least because a lot of the cost basis is common across all three platforms. For example, the gates are there, they accept all three methods of ticketing. We have tried to do some analysis on, for example, what costs we might be able to save if we got rid of paper tickets all together. Those costs are quite substantial, which is why I said that we want to get rid of paper tickets because they cost a lot of money and they do not add very much.

Richard Tracey AM: Of course we had this debate a good many times here with certain differences. You said many times with the ticket offices, they were in your view not necessary because only, what, 3% were using paper tickets.

Shashi Verma (Director of Customer Experience, Transport for London): Yes, just to correct you, it is not paper tickets. What we have said consistently is that 3% of journeys start with a visit to a ticket office.

Richard Tracey AM: Yes, I see.

Shashi Verma (Director of Customer Experience, Transport for London): The vast majority of those are Oyster pay-as-you-go top ups.

Richard Tracey AM: Right. You also of course took cash payments away from the buses.

Shashi Verma (Director of Customer Experience, Transport for London): Yes.

Richard Tracey AM: You have made very considerable savings there, have you not, as a result of either people using Oyster or using contactless - some millions?

Shashi Verma (Director of Customer Experience, Transport for London): We expect that over time that will build up to about £24 million per year.

Caroline Pidgeon MBE AM (Chair): Could you just give us the figure for paper? You said you have done some costing if you got rid of paper ticketing how much you think you would save.

Shashi Verma (Director of Customer Experience, Transport for London): I would love to give you a figure except that we do not have a precise figure.

Caroline Pidgeon MBE AM (Chair): What is your estimate, what is your broad range?

Shashi Verma (Director of Customer Experience, Transport for London): I will tell you, if I could, after the meeting. We can write to you and tell you what analysis we have done.

Caroline Pidgeon MBE AM (Chair): You want to write us. I think it would be helpful.

Shashi Verma (Director of Customer Experience, Transport for London): I will just caution you, Caroline, just be careful here because, as I say, a lot of the costs are common across multiple ticket types. I am not trying to hide anything here. The reason I am being coy here is that analysis is not easy to do, just because

so much of the cost base is common across different things. That is why I want to be slightly cautious in just telling you, "Here's a number" because it is very difficult for even us to put a precise number of paper tickets.

Richard Tracey AM: Just going back, with the advent of contactless, how many people are stopping buying week, month or annual tickets? Has there been some changes in that? The Conservatives here, we have been talking about part-time and part-week workers and so on and some adjustment of tickets, as you know, as a result. What about that?

Shashi Verma (Director of Customer Experience, Transport for London): Just to give you some broad numbers on this. Out of all the ticketing transactions across the TfL network, about 70% are Oyster pay-as-you-go top-ups. The vast, vast majority of ticketing transactions are Oyster pay-as-you-go top-ups. That is the core market into which contactless has made an inroad. We put out a press release just yesterday which shows that contactless is now 14% of total pay-as-you-go journeys on the TfL network. That also means, by the way, that the number of pay-as-you-go transactions has declined by 14%, because frankly that market has been taken out into contactless.

In the big scheme of things, given that there is so much seasonal variability and so on and so forth, 14% does not show up as a huge number, but we can see a downward trend in the number of ticketing transactions across the network right now.

Richard Tracey AM: You can? You are already observing that?

Shashi Verma (Director of Customer Experience, Transport for London): It is already visible, yes.

Richard Tracey AM: How are you encouraging people to switch from paper to Oyster and to contactless? Do you have specific policies to encourage that?

Shashi Verma (Director of Customer Experience, Transport for London): Yes. Paper to Oyster, by and large that switch has happened. On the TfL network there is a very small proportion of people who buy either a single ticket or a one-day ticket. Between the single and the one-day that used to comprise almost half of all travel on the Underground 15 years ago. Today it is down to about 6% or something of that kind.

As you know well, Richard, we have used pricing as a mechanism to move people out of single tickets into Oyster pay-as-you-go, and that happened nearly ten years ago. That was the thing that shrunk the use of paper tickets from singles into Oyster pay-as-you-go. More recently we have been switching people out of one-day Travelcards into Oyster as well. This January quite large differentiations were introduced between the daily cap that is available on Oyster and the one-day Travelcard price. Again, we are seeing the effect of that with people switching into Oyster or indeed into contactless.

The question of how we encourage people to switch to contactless is a different one, because that is one where we have committed not to use pricing as a mechanism. It is really the attraction of convenience that is driving people towards contactless. It is not pricing. The same fares are available on both Oyster and contactless, but the convenience of not having to have a separate card or to worry whether it is topped up or not and so on is quite significant for people. In the customer research that we have done since launching contactless, that is what is coming out as the major factor that is driving people to switch to contactless.

When I do go around talking to customers, when I see them using a contactless card, that is what they tell me anecdotally as well.

Richard Tracey AM: You have not introduced any price differentials?

Shashi Verma (Director of Customer Experience, Transport for London): No.

Richard Tracey AM: You are not doing down those of us who have Oysters because we are not using contactless?

Shashi Verma (Director of Customer Experience, Transport for London): The situation is very different compared to when we launched Oyster; that anyone could get an Oyster card and, therefore, we could use pricing as a mechanism. The situation here is different. Practically everyone can get a contactless card, but not everyone has one right now. Therefore, I think it would be unfair to penalise people for using anything other than a contactless card. That is the policy that we have held quite firmly.

Richard Tracey AM: There is a discrepancy, is there not, between pay-as-you-go Oyster card users missing out on the benefits of weekly capping?

Shashi Verma (Director of Customer Experience, Transport for London): Yes.

Richard Tracey AM: What about that? That seems to be a bit of skilful manoeuvring by TfL.

Shashi Verma (Director of Customer Experience, Transport for London): Skilful manoeuvring or it is just the reality of the way the technologies are. The challenge that we faced here is we could introduce weekly capping to contactless, because the technology is new, and we will introduce weekly capping to Oyster as well, but as I said just a few minutes ago Oyster is quite old technology and needs to go through quite a big upgrade. The question that we faced is do you withhold the convenience of weekly capping from everyone, just because you can't offer it to some people, or do you offer it as a convenience to those people who can access it?

I will make a very fine point over here. I am going to labour this point because it is important. The weekly capping does not give you a cheaper fare. It gives you the same fare that is available if you buy a weekly Travelcard. It does give you the convenience that you do not have to plan in advance whether you need to buy a weekly or not. If you have that uncertain lifestyle then it is clearly more convenient for you to have access to weekly capping than to buy a weekly Travelcard. However, it does not give you a cheaper fare. It is giving you the same fare that is available to you by buying a weekly Travelcard. I think that is why we have said that the same fares are available on both Oyster and contactless. I think we will readily accept that it is more convenient to have a weekly cap, compared to the need to make a decision in advance.

Richard Tracey AM: Are there any plans to reduce the number of available ticket types to simplify the system? You do have various different sorts of tickets, do you not?

Shashi Verma (Director of Customer Experience, Transport for London): We do, but the fare structure is quite complicated, and it is complicated for a whole variety of reasons.

Richard Tracey AM: Yes, it certainly is.

Shashi Verma (Director of Customer Experience, Transport for London): It is not because anyone designed it that way, it is just that that is the way it has grown. It is important to realise that in all of that complexity, from a customer's perspective, the choices are not difficult. The vast majority of adult customer

base is paying adult fares, either pay-as-you-go or Travelcard and those products are relatively simple. Where there is a high degree of complexity is in all the plethora of concessions that are available, both for children and for adults and, from our perspective, when we write the fares booklet the booklet ends up being quite thick. To you as an individual most of that booklet is completely irrelevant, because the fact that there are some special fares for children who are 16 - 17 is completely irrelevant to you. What is relevant to you is the fact that you have to pay a pay-as-you-go fare or indeed buy a Travelcard for a week or month or a year. The choices there are relatively simple.

The challenge that we face, and we have always faced this challenge, is in how to explain this more simply to our customer base, who struggle with the idea of a thick fares booklet. We have been doing a lot of work and we are still doing more work on improving the presentation of fares. One of the things that has happened in January with the reorganisation of fares is that the choice between, for example, pay-as-you-go and a weekly has become even simpler. If you travel during the week days but do not travel during the weekend there is no point getting a Travelcard. You will not benefit from a weekly cap either because the way the fare structure is set up today is that you have to travel fairly intensively every weekday and then do at least some travel on the weekend before a weekly Travelcard or a weekly cap becomes useful.

Again, we do keep this in mind when we are looking at fares and what we do about it. Yes, there are many ticket types and those ticket types are not going to go away, because they deal with particular markets, but you just have to keep in mind that the choices for an individual are not as complicated as the entire fare structure.

Richard Tracey AM: There are various journey planning tools that people can use. Do you have any plans to link them up more, so that people really do hit the best value each time they travel?

Shashi Verma (Director of Customer Experience, Transport for London): Richard, for about four or five years we have now provided a single fare finder on our website, where if you say you want to go from station A to station B it will tell you all the different fares that are available between those two stations. Would we like to integrate that with the journey planner? The answer is yes. I cannot impress upon you enough how technically challenging that is. It does not sound very challenging. It just looks like there are two stations that you are displaying on journey planner and there are two stations on the fare finder and how difficult can it be to include those? However, given that the fare structure depends upon origin, destination and route and time of travel and other factors as well, this is a non-trivial problem. If there was an easy answer to this I promise you we would have done it by now.

Richard Tracey AM: The only other thing I think I should ask you is whether there have been any moves forward in you linking up better with main line providers? Because we have all had the experience of they do not seem to be able to use Oyster or they will not move to us being able to pay by Oyster, and now there is contactless as well. How about that? Is there progress being made, or is it still in a bit of a stalemate?

Shashi Verma (Director of Customer Experience, Transport for London): As far as Oyster and contactless are concerned, every National Rail station in London, with just one or two exceptions, like Stratford International, now accept both Oyster and contactless. You may know that there is a slightly different fare structure that applies to journeys on National Rail compared to TfL services.

Richard Tracey AM: Yes indeed.

Shashi Verma (Director of Customer Experience, Transport for London): Leaving that aside, the experience of being able to touch in and touch out and pay the right fare and so on and so forth, applies equally to National Rail as it does to TfL services. The problem starts as soon as you step outside Zone 6 where you are back in the world of the 1960s with paper tickets and so on. That is something that we have been trying to work with the Department for Transport (DfT) on for some quite some time, without very much progress being made.

Richard Tracey AM: Yes, OK, thank you.

Caroline Pidgeon MBE AM (Chair): I like that, “outside Zone 6 it is a 1960s world”!

I have a couple of little things I wanted to pick up, Shashi. Can you confirm when we can expect the weekly cap to be on Oyster? Is it going to be your next generation of Oyster that it is on? When can we expect that? Because I realise the programme has slipped, for good reasons, but back in 2013 the Mayor wrote to me on this issue and confirmed it would be in in 2015. Obviously we are behind. What date are you working to?

Shashi Verma (Director of Customer Experience, Transport for London): Please do not hold me to this, because we do not have a detailed programme as yet.

Caroline Pidgeon MBE AM (Chair): No, we just need a rough idea.

Shashi Verma (Director of Customer Experience, Transport for London): Roughly speaking, it is another two years’ worth of work before that can happen.

Caroline Pidgeon MBE AM (Chair): Another two years. OK.

Shashi Verma (Director of Customer Experience, Transport for London): Part of the reason why it is going to take us another two years is that in the background we are also busy trying to deal with things like the 24-hour Tube. That is a fantastic thing for London, but it turns the entire fare collection system upside down, because the fare collection system works on the basis of a defined day.

Caroline Pidgeon MBE AM (Chair): Yes of course.

Shashi Verma (Director of Customer Experience, Transport for London): Now we will have services running all 24 hours and, therefore, we cannot have a defined date. We do get interrupted in our work by quite measured initiatives of this kind, which are all very important. It is our job to make sure that we are not stymieing these initiatives from happening.

Caroline Pidgeon MBE AM (Chair): Just on the cost of collecting. I recall from previous evidence you gave that the cost of collecting fares on Oyster was 10 pence in every pound, whereas contactless was going to be under 1p. Is that still the --

Shashi Verma (Director of Customer Experience, Transport for London): No. I think that is slightly simplistic.

Caroline Pidgeon MBE AM (Chair): OK.

Shashi Verma (Director of Customer Experience, Transport for London): As I said earlier, the cost used to be about 15% of revenue back in 2006. It was 8.8% the last year we did the benchmark in 2012/13. Within that there are two different sources of costs. There is the cost of ticket selling or collecting money, and there is the cost of providing the physical infrastructure for inspection and so on. For example, the gates. The cost of the gates is not going to go away. It is what it is and the staff in the stations are there and they are not about to go away.

Caroline Pidgeon MBE AM (Chair): Yes, that is a fixed cost.

Shashi Verma (Director of Customer Experience, Transport for London): What is different is the cost of retailing, between Oyster and contactless. With Oyster you have to provide all this paraphernalia for retailing, including all the equipment and all the commissions and so on and so forth. Back in 2006 that was about 8% of revenue - 8% for the retailing and about 7% for the physical infrastructure. That 8%, by comparison on contactless, the commissions that we pay are less than 1% and they are coming down as well. That is not the only cost. We have to provide some infrastructure for running the contactless system as well. Roughly speaking that is the sort of comparison you are looking at.

Caroline Pidgeon MBE AM (Chair): It is considerably cheaper.

Shashi Verma (Director of Customer Experience, Transport for London): Having said that, that was 2006, and we have squeezed the cost of Oyster down quite a bit since then as well. I do not think the comparison today is between 8% and 1%. It is more of the order of a comparison of 3% or 1%, which is the difference between Oyster and contactless.

Caroline Pidgeon MBE AM (Chair): Still considerable sums of money. Yes, lovely. Thank you.

We are going to move on to looking at contactless payment in detail. Before I do that I wanted to welcome two guests in the audience who are from the Abu Dhabi Department of Transport. You are very welcome today. You are coming to London to look at travel demand management and behaviour change issues. I hope you find your visit informative.

Moving on to contactless bankcards, Onkar.

Dr Onkar Sahota AM: Shashi, sitting here, you talked a lot about a contactless card, right? I am not entirely sure in my mind why you call it contactless, when you seem to have to make contact.

Mike Tuckett (Head of Transformation Delivery, Transport for London): The honest answer to that is the banks had already decided to use the term contactless for their product and we just felt it was better to adopt that, rather than make up our own brand or title for it. I totally take the point that it is --

Dr Onkar Sahota AM: Reading this document last night I was totally confused.

Mike Tuckett (Head of Transformation Delivery, Transport for London): Yes it may not have been the best name in the first place, but it was, from our point of view, sensible to adopt it.

Dr Onkar Sahota AM: You have obviously introduced this method of payment on your services. What has been the response from you passengers and has there been a different response from different modes of transport and why those differences may be?

Mike Tuckett (Head of Transformation Delivery, Transport for London): I suppose first of all in headline terms the response is that the satisfaction rating for contactless is already as high as for Oyster, which we find remarkable in a way because Oyster is obviously such a pretty much well-loved and successful card scheme. Right from the outset the same satisfaction rating has been there for contactless as well.

In terms of the difference between the modes, is it fair to say, Shashi, I think the growth on rail has probably been a little bit more dramatic than the growth on bus. Nevertheless, you see great usage and take up and customer satisfaction in all areas. If you look at our call centre it is very, very quiet in all respects. There is certainly very, very few complaints and actually very few calls about issues generally. We see the same kind of pattern in terms of feedback from station staff and bus operators. It is like people have just got it. They started using it and it is actually very seamless and I think people are finding it very comfortable to use.

Dr Onkar Sahota AM: What has been done to ensure that passengers who do not have, or choose not to use this card, get the same benefit from ticketing process systems including those paying the cheapest fares?

Shashi Verma (Director of Customer Experience, Transport for London): I go back to the point that the same fares are available in both Oyster and contactless, so people are not benefiting from a lower fare by contactless. As I said earlier, they are benefiting from the convenience of weekly capping, otherwise the fare structure is identical. We make sure that even in the background these complicated identification (ID) systems that are supporting these two products remain identical as far as the application of fares is concerned.

Dr Onkar Sahota AM: When does TfL expect to launch the upgraded Oyster card, which will bring the same benefit as the contactless? I think you said about two years, was it?

Shashi Verma (Director of Customer Experience, Transport for London): As I said, we do not have a detailed programme as yet, so please do not hold me to this, but it is about two years before that can happen. As I said earlier, we do keep getting side-lined by other initiatives that are gaining prominence as well.

Caroline Pidgeon MBE AM (Chair): That is the Electra contract, is that right?

Shashi Verma (Director of Customer Experience, Transport for London): Electra is done. Electra was a completely different process. We had a contract for the management of our fare collection system, so that would be maintenance of gates and so on, which was first let out in 1998 under the private finance initiative (PFI) called Prestige. We terminated that contract in 2008 to extract value and that is one of the reasons why the cost of revenue collection went down. The replacement contract that we had put in place was due to expire in August 2015. We went through a procurement exercise which was called Electra and out of that we awarded a contract last July and that contract comes into force in August this year. That is purely for the management services around the ticketing infrastructure. That does not change the proposition at all.

Caroline Pidgeon MBE AM (Chair): That is the next phase, phase 4, which is you developing your second generation?

Shashi Verma (Director of Customer Experience, Transport for London): Yes, Oyster card.

Caroline Pidgeon MBE AM (Chair): That contract is out at the moment?

Shashi Verma (Director of Customer Experience, Transport for London): Again, a lot of the development is being done in-house. We did not touch on this earlier. If you look at the work that we have

done for launching contactless, that work was split between our contractor, which is a company called Cubic Transportation Systems, who built us the reader that accepts both Oyster and contactless payment. When you look at the back office infrastructure, which is where all the fare calculations are taking place and all the risk assessment is being done, we actually built that infrastructure in house within TfL, which again is a very unusual thing for public sector organisations to do. This is quite a large-scale, mission-critical ID system which we chose to build ourselves. We chose to do it that way because we found that that was the cheapest way to do it. Actually handing it out to an IT supplier would have been much more expensive.

Caroline Pidgeon MBE AM (Chair): The next generation Oyster, are you taking technology away from some of the gate line to back office?

Shashi Verma (Director of Customer Experience, Transport for London): Exactly. It is very difficult to do things like weekly capping in the gate. We just do not have enough time to be able to do vast numbers of calculations of that kind. A lot of the fare computation is going to move into the back office. That back office will be developed using the back office that we already have for contactless. The readers will need some changes and those changes will happen with Cubic again, because they manage our infrastructure right now. Again, it is going to be a very similar model to what we follow, with some work being done by our contractor and a lot of work being done in house.

Caroline Pidgeon MBE AM (Chair): Yes, but the simple thing, just for lay people who are not involved in this, the next generation is taking away the technology from the ticket machines to back office, so that you can do more things with the cards?

Shashi Verma (Director of Customer Experience, Transport for London): Yes, absolutely.

Victoria Borwick AM: That is good. That means more on the card then?

Shashi Verma (Director of Customer Experience, Transport for London): There will be less on the card than there is today. The difference between the Oyster card and contactless bankcard is that with Oyster the value that you have on your card physically resides on your card and all the interaction that you have with us is when you present the card to a reader, which is when the fare has to be computed and the value has to be deduced and the a new value has to be written to the Oyster card.

The difference with contactless bankcards is nothing sits on your bankcard, except for a secure key. We use the key to create a transaction, we then take the transaction into our back office where we can process it differently and do all kinds of complicated calculations on it, which is how we are able to offer weekly capping. The Oyster card is going to become a little bit like the contactless bankcard, with less sitting on the Oyster card and more sitting in a back office.

Caroline Pidgeon MBE AM (Chair): The ordinary passenger they will not effectively notice any difference.

Shashi Verma (Director of Customer Experience, Transport for London): They will not notice.

Caroline Pidgeon MBE AM (Chair): It will just be a quick transaction, but it is how you store it.

Shashi Verma (Director of Customer Experience, Transport for London): Completely. Actually that is true even today. The fact that people are using a bankcard and frankly no one needs to know the fact that the technology works differently. What they need to know is that it works.

Caroline Pidgeon MBE AM (Chair): Yes, exactly. Let us pick up some of the issues with contactless payment cards. Navin, you may want to challenge some of the things Mike [Tuckett].

Navin Shah AM: Yes. It is understood that when you introduce a new system you have teething trouble, which you had with the contactless system. I understand that compared with Oyster cards you still have a very high level of complaints from the users of contactless. Is that true?

Shashi Verma (Director of Customer Experience, Transport for London): That is not true at all. The level of complaints with contactless is incredibly low. What is the latest data on that?

Mike Tuckett (Head of Transformation Delivery, Transport for London): You can measure it in tens, maybe just over 100.

Shashi Verma (Director of Customer Experience, Transport for London): Let me answer that question completely.

Navin Shah AM: Yes.

Shashi Verma (Director of Customer Experience, Transport for London): AT the last count the number of complaints was roughly around 40 out of 60 million journeys. Of those 40 or there about complaints that we have had, all but one have been from Oyster customers who have suffered from card clash. There has been one complaint about a revenue inspector. More importantly, there have been none about the contactless system itself. Whoever has informed you that there are a lot of complaints about contactless is not correct about it. In fact, we have been surprised at the lack of complaints about contactless, both from customers and from the staff.

The issue of card class, as we have touched upon it, is one that is worth elaborating. A card clash happens when you present more than one card at the gate. Our readers are trained to reject all cards. So if you present more than one they are trained to reject all of them. What happens occasionally, and really it happens very, very occasionally, is that because there is so much magnetic interference between the different things in your wallet, it is possible that one card gets read and the other one does not. Unfortunately the card that gets read is the wrong one. That is where you end up with an accidental payment on a card that you do not intend to use.

We were very clear about this right from the very beginning. Part of the extended piloting and testing was to test out exactly this issue. We put in place a method of automated refunds where we could detect card clash. We have been doing automated refunds of the order of about 1,200 - 1,500 per day. The customers who are getting these automated refunds are very happy with the fact that we have identified that and have corrected it without them having to take any action. I would not agree at all with the idea that there are a lot of complaints about the contactless system, because that is not our experience at all.

Navin Shah AM: I have a figure, or comment, here which says that TfL reports an average of 3.7 complaints about contactless per 100,000 journeys, compared with 0.7 per 100,000 journeys for Oyster. That is where my first question came from. Can you explain whether the information I have is wrong or that it is --

Shashi Verma (Director of Customer Experience, Transport for London): That includes enquiries. There are a lot of calls, especially in the early days of contactless, when people are calling to say, "I have heard about this contactless payment card and how do I use it?" That was at a time when the number of contactless

journeys were very small. A lot of enquiries not that many journeys. If you look at the situation today, the number of enquires has not gone up but the number of journeys has gone up by quite a lot. I would really, really challenge this idea that we are getting a lot of complaints about contactless.

Navin Shah AM: On that basis, would you actually say that contactless mode actually is better or is less problematic than Oyster in terms of complaints?

Shashi Verma (Director of Customer Experience, Transport for London): The feedback that we are getting from both customers and staff is very clear that this has been a problem-free implementation of technology and that especially if you talk to staff who get the complaints face-to-face as well. The general view from everyone is that this is working perfectly well.

Navin Shah AM: I have further information here that it was the TfL's *Quarterly Operational and Financial Report*, December 2014, where they got this information from.

Shashi Verma (Director of Customer Experience, Transport for London): I know. Absolutely.

Caroline Pidgeon MBE AM (Chair): We are not making up figures, these are your figures.

Shashi Verma (Director of Customer Experience, Transport for London): No, I am not suggesting that you are making up figures, but that is covering a period in which we did not have too many contactless journeys. Because we were launching a new product we were getting a lot of inquiries about what is this new product. That is not the same as saying there are a lot of complaints about contactless, because that is not borne out by the evidence that we are seeing every day.

Navin Shah AM: Thank you for clarification. I think it would be useful if you can write to the Chair putting the whole story out in terms of what the facts are and what the current statistics are. In fact, what I would like, that was my next question, what are you doing to iron out problems that there are currently with the contactless system, and do you have a target or timetable?

Shashi Verma (Director of Customer Experience, Transport for London): First thing, there are no problems with the contactless system. I would not be so bold to say that easily, but there are no problems with the contactless system. The only problem that we have ever identified was card clash and --

Navin Shah AM: What about authorisations, which are declined at times? What are you doing about that?

Shashi Verma (Director of Customer Experience, Transport for London): That is not our process, that is an industry process. Authorisations are declined sometimes when you do not have enough money in the bank. If you do not have enough money in the bank and you try to use your card then it is possible that your authorisations are declined. There is nothing that anyone can do to correct it, other than you having money in your bank account.

Navin Shah AM: Any communication drive you have to let the commuters know, "Look, you have to be careful about X, Y, Z with using it because, don't blame us"?

Shashi Verma (Director of Customer Experience, Transport for London): There are two things that we do. If you are registered with us, if you have registered your contactless card with us, as soon as there is a decline we inform you that there has been a decline on your card and you can go and correct it yourself online

or you can call us and we will fix it for you, provided that that account has been cleared. Equally, we have been working with the banks, and Mike [Tuckett] can tell you a little bit more about this, about the banks sending out alerts, where a contactless transaction on TfL has been declined.

Again, this is why we encourage people to register with us, because if you do register with us you will get an immediate notification when a transaction has been declined. However, I should say the principle reason for a transaction being declined is that you do not have enough money in the bank account.

Mike Tuckett (Head of Transformation Delivery, Transport for London): Like Shashi says, for an unregistered customer there is nothing we can do to contact them. It is really, really valuable if the card issuer can do that themselves. Barclaycard are actually leading the way in this area. This year they are planning to update their system, so if they do decline a transaction from someone trying to travel on TfL they are going to send a text alert or an email to that customer, just being very clear what has happened and setting out the steps they should take. We are lobbying, if you like, the rest of the industry to copy what Barclaycard are doing there.

Navin Shah AM: Do you reckon you have a large volume, or largish volume of cards where authorisation is declined?

Mike Tuckett (Head of Transformation Delivery, Transport for London): It is very, very similar to the level of declines you would see for cards used in a shop, so it is somewhere typically between 1% and 2% of transactions we process that are declined. Like Shashi says, the vast majority is because the person has not money in their account. It is really primarily not our issue, it is someone is trying to pay with a card that has no funds.

Navin Shah AM: If we move to my last question, can you give us reasons as to why multiple tickets and transaction value cannot currently be used on contactless, and whether you are looking at resolving this problem?

Shashi Verma (Director of Customer Experience, Transport for London): There is no resolution to it. The reason that you cannot have multiple travelling on the same contactless card, or indeed the same Oyster card, is that we provide things like daily and weekly capping, which means that it has to be one card per person, otherwise it is impossible to separate out journeys that have been made by one person, compared to two or more people. You can either have a system in which you do not offer the convenience of capping, in which you can have many people travelling on the same card, or you can have a system in which you are giving people the convenience of capping, in which case it has to be one card per person. There is nothing anyone can do to resolve this. It is just a question of which choice you have.

Mike Tuckett (Head of Transformation Delivery, Transport for London): There is a second reason as well actually, which is we offer what is called pass back protection, so someone touches a card twice, by and large we need to ignore the second touch to avoid someone paying twice. In the scenario you are talking about you would have to touch the card twice to pay for two people, so we would be very reluctant to lose that protection for so many people that we give by currently ignoring the second touch.

Navin Shah AM: I must say I am staggered to learn that there is no system whereby you can have a multi-use, whereby subsidy or benefits for groups who are travelling or large family travelling together who can benefit from such a system.

Shashi Verma (Director of Customer Experience, Transport for London): I can advise you a system, the question is whether anyone will be able to understand what has happened on their card. It is not easy for people to figure out how fares have been computed, by the time we have gone through capping and things of that kind. If you find a statement on your bank account which is indecipherable the reaction to that is not going to be one that is very positive. I understand that some people raise this question about could multiple people travel on a card, but the number of questions we get of that kind are very, very small. They have always been around, not just with contactless, they have been around with Oyster as well. The reason I am giving you for why that is the case is very clear, that we are trying to provide a clear system of fare collection that people can trust, with the convenience of daily, and now weekly, capping. It gets very complicated if you are trying to do multiple transactions on the same card.

Navin Shah AM: Perhaps you can look into this, because there may be various organisations, charities for example, who organise trips for their service users and stuff. Maybe those are the kinds of organisations who can have a particular separate kind of card which they can use to benefit from such journeys. Surely you need to, in my view, look at these kinds of alternatives.

Shashi Verma (Director of Customer Experience, Transport for London): We already provide things like group day tickets, if there are groups of ten or more travelling you can buy a group day Travelcard today.

Navin Shah AM: Yes but why can that not be used by using the contactless?

Shashi Verma (Director of Customer Experience, Transport for London): Group day Travelcards, for example, do not offer you capping, it is just a ticket. The question here is how much complexity do you want to load on to any technology? If you do that, is it comprehensible by mere humans at the end of it? That is the eventual challenge that not only do you have to make the technology work, but people who are paying for these fares also need to be able to understand how they have been charged.

Navin Shah AM: All right, thank you.

Caroline Pidgeon MBE AM (Chair): It is quite clear from what you are saying there this is why you are going to always have to have an Oyster system alongside bankcard.

Shashi Verma (Director of Customer Experience, Transport for London): This is not the reason for an Oyster system alongside bankcards. The Oyster system also enforces the same logic of having one Oyster card per person. The reason to have an Oyster card is that people may not want to use a bankcard at all.

Caroline Pidgeon MBE AM (Chair): I am just thinking, you see cases of people turning up on to a bus, they have, I don't know, parents visiting and they say, "I'll get your fare" or, "They don't accept cash now you can pay with a bankcard". "No I can't. Right, I've got to find somewhere to get a ticket". A number of us do have Oyster cards at home for visitors and things but I can see that that is one of the reasons why you are always going to have to have two systems.

Shashi Verma (Director of Customer Experience, Transport for London): Completely. The ability to pay for other people is one reason why we all have multiple Oyster cards, and I have a whole shed full of them as well.

Caroline Pidgeon MBE AM (Chair): I am sure. Let us move on to the next generation ticketing, what it could look like in the future.

Murad Qureshi AM: Shashi, you told us that we can go back in time if we go to the outer zones on ticketing. Let us go into the future now with Mike [Tuckett]. The next generation of ticketing, what can we expect beyond this programme that you are working on? Can we expect to use our mobiles, or other wearable technology? Tell us where you are taking us?

Mike Tuckett (Head of Transformation Delivery, Transport for London): We may have mentioned already is that one of the key points of our system is it is being built in a way that will accept any valid payment transaction from the main schemes, really however that is presented to us. There are mobile phones already in use out there. There is the thing that Barclaycard issues, this wristband, or the 'wearable' as you call it, which is accepted perfectly well on our system. We predict there is going to be a lot more of that, because it really is just getting to a point of maturity now that these things are getting issued a lot more.

From our point of view they work fine, so long as the transaction time is fast enough for our mass public transport because the speed of use is very critical for us. There is just certain basic things like the customer needs to know the details they require to set up an account with us or call our call centre because that is the only way they can get customer support from us. The example there is a basic mobile phone application, the customer may not actually be aware of the card number that is residing within their phone, and to use it on TfL you really need to know that.

Generally all those things will be welcome and what we do is encourage those people who are issuing that kind of thing to have a dialogue with us first before they launch it, just to make sure that everything works really, really well for the customer, because of the special environment we have with using those kinds of products in transport.

Murad Qureshi AM: Personally, since I have been using mobiles I have not been using watches anymore. There is no point because you can get the time, so I am not sure we can go very far with the technology on the bands.

What are you doing to help staff keep pace with this technical change? Because I think they have to be at the front end of a lot of the queries and I dare say they are human, just like us, and they are the first point of contact, I suspect, for a lot of people when they do not quite understand how the payments are to be done and which way. Are there training programmes which are assisting staff on this front?

Shashi Verma (Director of Customer Experience, Transport for London): We took the staff through a training programme before we launched contactless. As you know, they are also going through a training programme around the reorganisation of ticket offices and so on. I have to say that the training for the introduction of contactless was relatively very simple, because the product is relatively very simple. What the staff need to know about contactless is actually quite limited, because the thing works almost sort of magically. When it goes wrong it provides one of three codes at the gate line. What they need to know is how to interpret those three codes. It is either the card has been rejected by us because there is an unpaid debt on it, or the card has been rejected by the issuer because there is a problem with the card, or it is not a valid card type.

You are quite right that staff are at the frontline of customer queries, but the customer queries have been boiled down into something very, very simple that the staff can grapple with easily. The question of whether it is a card or a phone or other variable devices is almost immaterial. You put whatever device it is to the gate and either the transaction is accepted or one of those three codes flashes up on the gate. It is almost

immaterial whether a watch or a pay band or a pay tag or a card or whatever it is being presented. Of course if it is a watch compared to a card it looks different to you but the way the technology works is almost identical.

Murad Qureshi AM: Thank you.

Mike Tuckett (Head of Transformation Delivery, Transport for London): The world has really changed for us in a way. In the old days if we issued a new variant of an Oyster card we would brief all the staff, "This is this shade of blue" and whatever and they would be very tightly controlled. We are in a world now where people can issue things, hopefully they have spoken to us but they do not have to. The notion of telling the staff, "Yes, there is a watch, yes there is this" we have to actually let go of that and say, "If it has a Visa, MasterCard, or American Express payment application in it, it will work. It will give these codes if it fails, trust it, don't worry what it looks like, it's just a payment application". This is a very different of application.

Murad Qureshi AM: I go by the observation that it is not technology itself, it is the pace of technology and the change which throws people. I certainly do not want staff on the barriers having to phone up our banks to find out if we are in credit to pay for a journey we have just had.

There are other areas where I think we have seen new generation ticketing, and one which I was experiencing last night actually, was if you buy an air ticket now, you do not have to go to a travel agency, you can do it off your computer. That is probably 90% of the aviation industry that is being done like that. Can we not do that with our monthly and seasonal tickets?

Shashi Verma (Director of Customer Experience, Transport for London): If you think of what we have done with contactless so far, it is exactly that. You do not need to talk to anyone, you do not need to get an Oyster card from us, you do not need to top it up, you do not need to do all the things that we required you to do in the past. That is the convenience if you are offering the contactless cards. As you know, one of the future phases of our project is about giving people the ability to associate a season ticket with their contactless card. It will be the same process where you go online and you can associate your season ticket with your contactless card and you, frankly, do not need to talk to anyone, you do not need to see anyone, you do not need to go and do anything physically to your card, anything of that kind.

I am totally with you on this one that that is the kind of convenience that we want to offer. In my opening statement that is exactly what I said. Because of technological constraints in the past we have been down this path where everybody has to go and physically get a piece of paper or a piece of plastic to show that they have a ticket and the world has moved on. Actually, the world has not moved on, we have made the world move on by introducing technology where people do not need to do that anymore.

Murad Qureshi AM: For example, we get warrants every year for the travel that we as Assembly Members do, but we have to go to the ticket person and go through a palaver which, maybe in light of what I have suggested, may not be necessary if we could do it from our computer terminals.

Shashi, you have just said that you are leading the way but, seriously, who are you watching out there in the world cities? Surely Tokyo, Seoul and Singapore are probably ahead of us on this front?

Shashi Verma (Director of Customer Experience, Transport for London): There is nobody ahead of us on this right now. I can make that clear very, very firmly. There is nobody ahead of us. We do talk to every major city around the world and I could list out about 30 or 35 cities with whom we have a discussion and an ongoing dialogue. They are all learning from us.

Once upon a time, ten years ago, if you went to East Asian cities they were ahead of us. They are not ahead of us anymore. We are ahead of everyone else in this pack. What is happening now is other cities are trying to figure out ways to emulate the experience that we have gone through. The first in that pack was Chicago, where you can also now make contactless payments, and Vancouver is coming down the path on that front. There are other cities like Budapest that have just awarded a contract for their ticketing systems to be built on the back of contactless bankcards. Just yesterday, Kochi in India launched a request for proposals, again based on a bankcard system, and Seoul and Singapore and Hong Kong, we have regular dialogue with them where they are trying to adopt similar methods of payment. I can say with absolute certainty there is nobody ahead of us and we are actually ahead of everyone else by quite a long distance right now.

Murad Qureshi AM: I will have to look out for that next time I go to East Asia. I do concur though, I think we are certainly ahead of North American cities, but I always thought the leading lights were in East Asian cities. Particularly I remember when Oyster came in to London we were about a decade behind, I think, at that time. You are saying we have gone caught up with them and gone past them now and they are having to catch up with us.

Shashi Verma (Director of Customer Experience, Transport for London): Completely. The first experiment with smartcards were actually done in London in 1992. That was the first time smartcard technology has been used for transport anywhere in the world. The smartcards used to look like the size of an iPhone, that is how big they were, the battery inside them. Our challenge back in the 1990s was that between the theology of PFI and a complete lack of investment, it took us a long time to be able to gather the investment to do anything about ticketing in our environment. The contract for building the new ticketing systems was signed only in 1998 after a prolonged PFI procurement. The first thing that we had to go and tackle after that was putting gates in the Underground stations and removing and replacing ticket machines on the bus network, some of which had been around since the 1950s.

It is only after we had done all of that, that we launched Oyster. Meanwhile, Hong Kong, which did not suffer from these shortcomings, launched the Octopus card before us. Equally Washington DC launched their smartcard before us. We were a little bit behind back then, but we have not stood still with the introduction of Oyster and, with the work that we have done over the last decade, we are far ahead of everyone else.

Murad Qureshi AM: OK, so not only are we ahead of everyone else we were always ahead of them. OK I suppose --

Caroline Pidgeon MBE AM (Chair): No, let us just say we caught up.

Murad Qureshi AM: Again, being a bit more futuristic, you talk about the ticket barriers. Are we envisaging a time when we will not need them and that there may be a virtual barrier and there may be facial recognition of us as we pass through?

Shashi Verma (Director of Customer Experience, Transport for London): My personal view is no because the ticket barriers provide multiple functions. They are there not just for fare collection but also they are for crowd control. With the intensity with which our services get used those other needs, like crowd control, are not going to go away. In every system without gates - and Germany is a classic example of that - people basically do not know how much fare they are losing, so you can be as sophisticated as you want but it is so easy to get in and out of the system that the level of variation is usually quite high. I think ticket barriers are here to stay, partly because they provide a much high rigour in fare collection and partly because they perform this function of crowd control, which is so important in our stations.

Murad Qureshi AM: It is just that, as you know, the Docklands Light Railway (DLR) is barrier-less and I am not sure what the latest figures there are on innovation or whatever.

Shashi Verma (Director of Customer Experience, Transport for London): Yes, DLR has a slightly higher fare division rate than the Underground. It is manageable. The DLR of course was built with a model where there are more staff at stations, so if you put gates to the stations then you have to think about staffing the stations. You have to balance these things out. The Underground is a very, very different environment. The intensity with which some of the stations get hammered on the Underground is unlike anything that you would see practically anywhere in the world. There are only a few examples, even outside London, where confined spaces are being used with that sort of intensity.

Caroline Pidgeon MBE AM (Chair): Could I clarify the monthly and annual season tickets going on to contactless? Are you seeing that there is going to be the ability to have effectively like a monthly cap and an annual cap or is it that somehow you buy this product and it is associated then with your card?

Shashi Verma (Director of Customer Experience, Transport for London): Our plan is that you should be able to buy the product and associate that with the card rather than provide a monthly or an annual cap, yes.

Caroline Pidgeon MBE AM (Chair): I just wanted to be clear on that. I thought that was what you were saying. I just wanted to clarify that. Let us look at the compatibility of these systems with other transport providers.

Victoria Borwick AM: As you have said this morning, you are leading the pack here, so how do we get -- I think one of the complaints that we get from people who are travelling further afield is: how are they going to work together? It comes up several times. Or liaising with people they can use their disabled person's card or their Freedom pass or whatever, certain things that happen in London do not necessarily happen elsewhere. Could you talk to us briefly about how you think you are going to improve compatibility with other transport providers?

Shashi Verma (Director of Customer Experience, Transport for London): As you know, our jurisdiction stops at the boundary of London and outside that it is the DfT. The DfT having been working for many, many years on a standard called ITSO, which is --

Victoria Borwick AM: Interoperability, yes.

Shashi Verma (Director of Customer Experience, Transport for London): Supposedly interoperable. In practice the interoperability has been a lot harder to implement. I think part of the problem that everyone faces right now is that ITSO is actually a technology of a similar vintage to Oyster and the world has moved on.

Victoria Borwick AM: Yes.

Shashi Verma (Director of Customer Experience, Transport for London): Therefore, this question of trying to implement complicated aging technology, in an environment where people's expectations are just sort of water in the air, is a real challenge.

Victoria Borwick AM: Yes, I presume there is no incentive for them.

Shashi Verma (Director of Customer Experience, Transport for London): We would love to be able to make more progress, not least in the belt of commuter stations just adjoining London, but it is not within our gift to be able to do anything of that without the help of DfT.

Victoria Borwick AM: Just taking you back to the points that you made to our Chairman earlier about the cost, presumably therefore that equals profit. In other words, if you are actually costing less because it is only costing you 0.5 or something to take the money, surely there must be a reason from a financial point of view for people to say that there should be an investment?

Shashi Verma (Director of Customer Experience, Transport for London): Yes, I think the logic of that is absolutely impeccable. The question is: how do you make it actually happen through the process of the fragmented transport industry that we face outside London? Unfortunately, logic does not prevail in those discussions all the time. If you just cast your mind back to the period before 2010, we had Oyster pay as you go running on the TfL network but not on the National Rail network. It started off from making exactly the same sort of logical arguments that you are making that this is good, which made no difference to anyone, to saying that we would loan people the money to go and put the equipment in, which also did not make any difference to anyone, to finally coming to the point where we said, "We will pay for the equipment and all you have to do is to accept it" and even that did not make any difference to anyone, so we had to resort to some sort of stronger arm tactics to get people in. Mike led on that project as well.

Shashi Verma (Director of Customer Experience, Transport for London): It was four years of solid negotiation to persuade the train companies and the DfT that Oyster, pay as you go, is a good thing. That is despite the fact that the evidence that it is a good thing was mounting every day with customers using it.

The result of putting Oyster on National Rail is that train company revenue has gone up by more than £100 million per year. This is a figure that the train companies will acknowledge as well. Did that mean that we had a completely smooth and easy ride introducing contactless? No, because we had the same debate all over again. That is the problem that we face every day. That there is such a high degree of reticence to doing the right thing for customers and adopting more in technology that makes life easier, but it is very difficult to make any progress as soon as you step outside London.

Victoria Borwick AM: A final and slightly different question but is there some way, do you think, of using the current systems we have to encourage people to think of other alternative ways of travel? One of the things is reducing demand at peak times, inevitably, and I do not know whether now you are getting opportunities to be quite flexible about when you charge different rates, whether you envisage there is a way of thinking about demand management?

Shashi Verma (Director of Customer Experience, Transport for London): We already have a system of peak and off-peak fares on both Oyster and contactless, and that has been around for quite a while. In fact, some of the off-peak fares are very, very attractive. I travelled in from Heathrow on Monday. From Heathrow to Earls Court the fare is £1.50 off peak. You can travel for the price of a bus fare from Heathrow to Earls Court.

Victoria Borwick AM: I am not sure as a consumer I know that. You know it when you put your card on the thing and it flashes up, but I think maybe there is more you could be doing to incentivise. The point that Caroline has made about the need to change the traffic flows during the day.

Shashi Verma (Director of Customer Experience, Transport for London): I think people are broadly aware of the peak and off-peak pricing. They may not be aware of the magnitude of the differentials.

Victoria Borwick AM: Yes. That is the point you made about complexity.

Shashi Verma (Director of Customer Experience, Transport for London): More importantly, the real question here is: how flexible are people in the travel time that they choose and could you make a difference to that by pricing?

Victoria Borwick AM: Yes.

Shashi Verma (Director of Customer Experience, Transport for London): I think that is the question that you are asking. The evidence for this is almost non-existent because nobody has done it anywhere in the world. To the extent that we have evidence it shows that you can make some difference - there is no doubt about it - but the fare differentials that you are looking for to make any substantial difference are quite large and you have to be mindful of the impact that that has on customers, especially knowing that people on lower incomes are usually the least flexible in their travel times. If they start facing a higher fare then that is not something that is sustainable.

Victoria Borwick AM: Yes.

Shashi Verma (Director of Customer Experience, Transport for London): This whole area looks beguilingly simple, in that: could you use pricing and move the demand around? It is when you start getting into the detail that you realise that it is not a simple problem and the unintended consequences are quite substantial. We just have to be mindful of those factors.

Victoria Borwick AM: A final question then: obviously now we have new sponsors of the cycle hire scheme. Are you intending to work with them in order to get contactless payments on that?

Shashi Verma (Director of Customer Experience, Transport for London): We are investigating and that is not just with the sponsors but also generally, because the contracts for the cycle system companies. We are investigating what happens to the cycle hire system in the future. That is something on which the Mayor is going to make announcements when we are ready to do so, but I think in general the drift is to try to integrate TfL services more as time goes on.

Caroline Pidgeon MBE AM (Chair): Can you clarify - I did not quite catch all of your answer there - are we going to see contactless on cycle hire?

Shashi Verma (Director of Customer Experience, Transport for London): No, I cannot give you an answer on that one because that is something that has not been decided. When it is, the Mayor will make an announcement on that.

Victoria Borwick AM: In six months, a year or --

Shashi Verma (Director of Customer Experience, Transport for London): As I said, generally speaking everything that we are trying to do is to try to integrate services a bit more. You would have to weigh it against all the other factors around the two different technologies and what it costs to launch them, so there

are quite big issues on that to be decided. Had we decided on this of course you would know about it because we would have announced it by now.

Mike Tuckett (Head of Transformation Delivery, Transport for London): Emirates Air Line comes into contactless later this year and London River Services next year, so that has already been decided on.

Victoria Borwick AM: Those two are both coming so it is not beyond the wit of man to make some presumption that the other might.

Caroline Pidgeon MBE AM (Chair): Isabel Dedring [Deputy Mayor for Transport] said before – she saw that it was the way to get more people using cycle hire as well.

Shashi Verma (Director of Customer Experience, Transport for London): There are attractions; there is no doubt about that. We can also see the challenges. The difference between Emirates Air Line and Cycle Hire is Emirates Air Line has two stations.

Caroline Pidgeon MBE AM (Chair): Yes, clearly.

Shashi Verma (Director of Customer Experience, Transport for London): Cycle Hire has 600 docking points.

Victoria Borwick AM: That is right. For example, you are putting in new docking points so that is ideal to try it.

Shashi Verma (Director of Customer Experience, Transport for London): Yes.

Caroline Pidgeon MBE AM (Chair): Exactly.

Victoria Borwick AM: The Committee would welcome such an improvement.

Caroline Pidgeon MBE AM (Chair): Yes, absolutely. Can I pick up another point: is there work going on not only nationally but internationally to look at whether you could develop international ticketing products? We have been talking about it sounds easy and it is technologically very challenging, is that the sort of discussion that is going on?

Shashi Verma (Director of Customer Experience, Transport for London): Could I just break down that question?

Caroline Pidgeon MBE AM (Chair): Yes.

Shashi Verma (Director of Customer Experience, Transport for London): When you say “ticketing products” is there work going on to try to come up with a common method of means of payment? The answer for that is yes. ITSO was an example of that. There is a project called European Interoperable Fare Management (EUI-FM) that has been running for years and years and has not delivered anything useful.

Our view is that if you want an interoperable fare media we have just got one because, in the same way that you can use your contactless cards in London, you can use them in Paris and you can use them in Berlin and so on. In fact, we have seen cards from 57 different countries used on our system already. This industry needs to

stop talking about yesterday's technology and adopt the technology that is available right now that is interoperable by design.

If you drive from here to Warsaw at every petrol station that you stop at you can pay with your credit card. Why is it that we cannot do that on the public transport system as well? The answer to that for many, many years has been to try to create this interoperable fare media, which is specific to transport and so on, and it has never worked. Our response to that is to say, "We do not need to create that specifically for transport. We just need to accept the method of payment that people already have in their pockets".

Caroline Pidgeon MBE AM (Chair): Is that the sort of discussion going on at international level?

Shashi Verma (Director of Customer Experience, Transport for London): Absolutely. I mentioned earlier, we talk to about 35 cities routinely. The discussion is about how they can accept contactless bankcards as their next generation of ticketing, which by default will give interoperability around the world.

Mike Tuckett (Head of Transformation Delivery, Transport for London): For instance, one of the core things we had to solve was what we called the transaction model, which is the agreement with Visa and MasterCard and American Express on how we handle the transactions on transport. We did that in a way where it is not bespoke to TfL. It is actually written generically and is in the rules of those schemes. Any transport operator can now come along and use that and benefit from the years of work that we had to do to put into that to solve those problems. It should be easier for other cities now to adopt this than it was even for us.

Caroline Pidgeon MBE AM (Chair): Excellent. I think that is the end of our range of questions. Have any Members got anything in addition?

Murad Qureshi AM: Yes, just one. It has to be said it is about compatibility with systems. The Cycle Hire scheme has the fobs. When are we going to be able to not use a fob and just use our Oyster cards or contactless to get on and off?

Shashi Verma (Director of Customer Experience, Transport for London): That is the question --

Murad Qureshi AM: Sorry, that was an example --

Shashi Verma (Director of Customer Experience, Transport for London): That is the same question as earlier. To the untrained mind a fob and a card and all these things look similar but the technology backing them behind it is quite different. That is the challenge that we face right now. It would be a good thing if we could use the Oyster card and contactless cards in the Cycle Hire system but the level of technology and the technicality is quite substantial.

Murad Qureshi AM: I understand that but the reality is, you would have a lot more use of the Cycle Hire scheme if we did not have to rely on the key?

Shashi Verma (Director of Customer Experience, Transport for London): I totally agree. That is why I said that the attractions are very clear. What are not so clear are the challenges of trying to integrate these technologies and we have to weigh the two of them against each other. As I said --

Murad Qureshi AM: OK, well, can I just step back then? Surely that should have been a requirement of the system in the first place? It is only five years old.

Shashi Verma (Director of Customer Experience, Transport for London): Yes, but the Cycle Hire system is basically as it was back in 2010 when it was first introduced. It was put in as an off-the-shelf system because we were trying to do something new and one of the ways of limiting risk with something new is to try to get an off-the-shelf system and implement it, which is what has been done.

As I said, there is lots of work going on on this and when we come to a conclusion the Mayor is going to make an announcement on what the path forward is. I totally take the point that you are making here that it would be a good thing if everything was integrated. The only thing I am trying to impress on you, Murad, is that you also have to weigh that against the cost and the technical complexity of trying to integrate two systems and right now that discussion is going on.

Caroline Pidgeon MBE AM (Chair): As I read this, the Mayor is going to make an announcement presumably after purdah on this and we look forward to hearing that.

I understand that in, I think, Stockholm they have the equivalent to an Oyster card but a disposable one, particularly for tourists. They can turn up, buy a ticket and it works for 24 hours or something and then it literally is disposable. It has a chip in it. Is that something you have looked at, at all, to help with the tourist market, rather than having to buy or put a deposit down on an Oyster card?

Shashi Verma (Director of Customer Experience, Transport for London): The first thing is I would not recommend the Stockholm system to anyone. If you know any details about the Stockholm system, it is the most complicated system to use.

Caroline Pidgeon MBE AM (Chair): Oh right, OK.

Shashi Verma (Director of Customer Experience, Transport for London): Having said that, we now have a disposable Oyster card as well. There is a one-day bus pass that has been available since 2 January, which sells for £5. There is no deposit on it. The fare is £5 for the one-day bus pass and we have been selling this from every Oyster ticket stop since January. We are selling about 1,000 of these every day and that is similar.

Caroline Pidgeon MBE AM (Chair): It only works on buses?

Shashi Verma (Director of Customer Experience, Transport for London): It only works on buses. We are looking at similar technology on the Underground as part of our getting paper out and putting disposable smartcards in.

Caroline Pidgeon MBE AM (Chair): Right.

Shashi Verma (Director of Customer Experience, Transport for London): The whole challenge with retailing it on the Underground is it is a lot more complicated because there are many more ticket machines and they would all have to be upgraded to do something of this kind but it is very much on the radar.

Caroline Pidgeon MBE AM (Chair): Potentially, disposable-type cards that suit visitors alongside your other package, yes.

Shashi Verma (Director of Customer Experience, Transport for London): Yes, absolutely.

Caroline Pidgeon MBE AM (Chair): Do any other Members have questions? Well, thank you, Shashi and Mike, very, very much for your detailed answers this morning. There are a few bits of information we would like from you. I will do a letter from this meeting outlining those extra bits of information we would like but good luck, as you move forward with this project, which is far more complex than I think any of us can imagine. Hopefully it will bear good fruit for our passengers in London and make it simpler and cheaper for them to get around.

Shashi Verma (Director of Customer Experience, Transport for London): Thank you.