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**Tuesday 26 November 2013**

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des débats  
(Hansard)**

**Mardi 26 novembre 2013**

**Standing Committee on  
Government Agencies**

Agency review: Metrolinx

**Comité permanent des  
organismes gouvernementaux**

Examen des organismes  
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## LEGISLATIVE ASSEMBLY OF ONTARIO

## ASSEMBLÉE LÉGISLATIVE DE L'ONTARIO

STANDING COMMITTEE ON  
GOVERNMENT AGENCIESCOMITÉ PERMANENT DES  
ORGANISMES GOUVERNEMENTAUX

Tuesday 26 November 2013

Mardi 26 novembre 2013

*The committee met at 0839 in committee room 1.*AGENCY REVIEW: METROLINX  
XEROX CANADA LTD.

**The Chair (Mr. Lorenzo Berardinetti):** Good morning, everybody. Again, we're meeting here. It's the Standing Committee on Government Agencies. I want to welcome and thank Xerox Canada for being here.

Before we start, just a few words: The stakeholders here have up to 30 minutes for their presentation. Afterwards, there's 75 minutes of questions. We'll have a rotation of, first, 15 minutes per party and then, after that, 10 minutes per party.

If you want to start, go ahead—

**Mr. Rosario Marchese:** Mr. Chair, a quick comment.

**The Chair (Mr. Lorenzo Berardinetti):** Yes.

**Mr. Rosario Marchese:** If I could urge everybody to articulate and speak up in this room, because sound is muffled, and for people like me, it gets difficult. So articulate loudly.

**Mr. Rick Bartolucci:** And project. Right, Rosario? Project.

**The Chair (Mr. Lorenzo Berardinetti):** Okay, so project as best as possible.

Welcome again to Xerox Canada, and you can begin your presentation.

**Mr. Emechete Onuoha:** Good morning. Thank you, Mr. Chair, honourable committee members. It's a privilege for us to be provided the opportunity. I'd like to thank you for inviting my colleague and me to appear before your committee on behalf of Xerox Corp. My name is Emechete Onuoha, and I'm vice-president of Xerox Canada, responsible for customer experience, environmental sustainability and global government affairs in Canada.

I'm accompanied by one of our global subject matter experts, Mr. Sandy Weinberg, who is our vice-president responsible for fare collection policy and operations in North America. He'll be able to provide some detailed technical insights relevant to systemic public transit issues related to fare collection.

We understand that the transport portfolio agency is the focus of your current review. We're happy to cooperate by providing testimony today. Our testimony will be divided into three general sections, beginning with a general background on Xerox Corp. operations in Canada

and worldwide, a background brief on the Xerox transportation solutions group, and concluding with some key strategic operating and architectural considerations associated with public transit fare collection in Ontario with respect to Metrolinx and relevant municipal transit agencies such as the Toronto Transit Commission.

Just by way of a little bit of background with respect to Xerox at a glance, Xerox Corp. worldwide is a \$22.3-billion enterprise established in 1906 and has been operating in Canada since 1953. We employ roughly 140,000 individuals, operating, as we do, in roughly 164 countries around the world. We have five primary research and development facilities: in the United States; in Grenoble, France; as well as a joint lab with Fuji Xerox in Japan. We also have a centre in India which was recently installed, last year. Of course, the fifth and most significant from our perspective is the research and development lab right here in Canada, actually about 20 minutes away from where we're sitting.

We're a leader in business process and document management. Some of what you may know Xerox to be famous for is actually a smaller part of our business in the current context. For example, last year we were responsible for handling over \$421 billion worth of accounts payable. We manage benefits for over 11 million employees around the world. We are responsible for processing 900 million insurance claims every year. Roughly 1.6 million customer service calls are answered by Xerox individuals. And \$37 billion worth of transit fares were collected by Xerox. This is in our burgeoning services and business process outsourcing operations.

Right here in Canada, just by way of further background and relevance to Canada, Ontario is, and has always been, of strategic importance to us. We employ roughly 1,800 people in this province. Under the leadership of Xerox Canada CEO Mandy Shapansky, Xerox Canada is actually considered to be one of the single-highest-performing operating companies in the Xerox world. Furthermore, we currently sit as one of the top 100 employers in Canada.

We have an established world-class R&D centre, as I mentioned, which received the coveted 2012 Green Chemistry Award from this province's Minister of the Environment in collaboration with the Chemical Institute of Canada for outstanding achievement in research and engineering. The Xerox Research Centre of Canada has a global materials research mandate and generates roughly

170 patentable ideas every year. That's roughly three inventions a week. It's one of the single most productive knowledge platforms we have in the world.

We have attracted some of the world's top materials scientists from 35 countries around the world who now work, live and pay taxes here in Ontario. The XRCC also hires 42 high-potential university co-op students, mostly recruited from Ontario university science programs.

Xerox Corp. is also one of the top 100 spenders on research and development in Canada across all industries. At the moment, nearly all of our foreign direct innovation investments come to your province.

We're also proud of our advanced manufacturing plant in Oakville and our supplies development centre in Mississauga.

Every digital imaging hardware device that my company offers up anywhere in the world contains intellectual property that was either invented or developed right here in Canada at the Xerox Research Centre. There is no other multinational corporation in our traditional competitive space in the world that can lay claim to that particular circumstance. We have a mutually beneficial record of achievement and an enduring commitment to growing Ontario's knowledge-based economy.

Having said that, here in Ontario our experience has been somewhat challenged in recent years. I have to say that we were surprised by the nature of the provincial government's intervention with the Toronto Transit Commission's transit fare collection procurement process in 2011, in a manner that ultimately resulted in Xerox being denied the opportunity to help the TTC meet their requirements of a much-needed, cost-effective, modern public transit revenue collection system. We were under the impression that Ontario was "open for business," but it appears, in this case, at least, that we may have been mistaken.

It is our understanding that in December 2012, roughly six months after Metrolinx postponed the long-awaited launch of its Presto system in the nation's capital, due to a costly system malfunction, Ontario's Auditor General identified major problems associated with the procurement approach taken by Metrolinx and vendor management associated with the Presto system.

Many of these observations were consistent with risks we identified internally in 2012, prior to the prototype system failure in Ottawa. Given our expertise in the field of advanced public transit revenue collection systems around the world, we are more than happy to share our insights and experience with the appropriate officials at the Ministry of Transportation here in Ontario, and Metrolinx, with respect to innovative public transit revenue collection and systemic risk mitigation.

At this point, I would like to ask my colleague Sandy Weinberg to provide further background to the committee from the perspective of Xerox Transportation Solutions.

Sandy?

**Mr. Sanford Weinberg:** Thank you, Eme.

Thank you very much. I do appreciate the invitation to appear before you today and share with you some of our experience in the fare-collection-specific world in terms of fare collection.

Very briefly, before I talk about Xerox, just to make my mother proud, I'll just tell you what my background has been. I've been involved with transportation, one way or the other, for probably about 25 years, and, the last 15 years, very focused on fare collection. I've been involved with Xerox—actually, with its predecessor, with Ascom, that turned into ACS, that turned into Xerox. I've been around the industry quite a long time and have seen the evolution in terms of fare collection and where it's going.

Very briefly, I did want to introduce a little bit of where Xerox's background is, in terms of transportation. We're involved in over 35 countries worldwide, delivering fare collection projects. The group that I'm particularly part of, and that delivers that, is our transportation and government solutions group. You can see on the slide up there that it's broken into several different main areas in terms of electronic toll collection, in which we process 1.4 billion electronic toll transactions every year, through our accounting, through our back office and management services.

For parking, we have parking solutions. Right here at the Toronto airport is one of our parking solutions. As well, we have a very innovative one that we just rolled out, about six or seven months ago now, in Los Angeles called LA Express Park, which provides dynamic pricing at every parking meter. There's a sensor by every parking meter, and the city can actually control, every 15 minutes, the price that's charged for the parking spot. It's connected to an app on your phone, so instead of circling the block looking for a parking spot, it can direct you to find where the spot is, or by pricing, direct you two blocks away if that makes more sense.

#### 0850

So we're involved with a lot of electronic technology in that regard as well, but the one that we're here to talk about today, obviously, is fare collection. Our systems are in 400 active agencies around the world today. We process annually about 37 billion transactions to all those different agencies today as well. That comes out to about 100 million transactions per day. We have applications everywhere from Warsaw to Paris to Mexico City to New Jersey.

Certainly here in Canada, one of the first smart card platforms, in 1997, was in Gatineau, Quebec. It's a little-known fact, but they were actually one of the leaders. They were actually before Paris went live with their smart card Calypso platform. It's been a very successful one up there, integrating with OC Transpo before they decided to go with the Presto application. As a matter of fact, they upgraded their system back in March 2012, and our readers were Presto-certified in March 2012, which was a couple of months before the rollout in the rest of OC Transpo. So the technology is something we can handle, certainly no matter what the format is.

Probably the one that we're most proud of is actually right here in Canada as well, in Montreal. Back in about 2006, we kicked off the Montreal STM regional smart card platform that's referred to there as Opus. It's a card-based system that has been in operation there. It handles 17 different agencies and in terms of that, it maintains their business rules for each agency as well as across all agencies, and that includes their commuter rail line, the AMT. That's all managed up there.

We have four million cards in circulation handling 550 billion transactions annually, as well, with an accuracy level which is 99.99995% accurate in terms of the way the transactions are handled. I think you'll find, also, if you look at the four million cards, a lot of them are in use, and the cards are being used, not just sitting around. From that standpoint, hopefully that tells you where we're coming from in terms of being a leader in the industry for transit payment technology and where it's been going.

Let me talk a few minutes about the evolution, in terms of fare collection. Certainly in my 15 years—I don't go all the way back 110 years, but in the last 15 years, you see where fare collection has been evolving. You have coins and cash, obviously, the mainstay of any fare collection system. Tokens were very popular to get cash out of the system, but then the magnetic stripe ticket became very, very popular and was the mainstay for many, many years. Then you got into the proprietary type of card application, which would be your Presto card, your Opus card, which is in Montreal, and other cards around the world. That's where it's a proprietary technology that resides on the card to make the system work. It was, again, a real advancement in terms of fare collection because it got cash out of the system, which you want to do, and also provided security and provided information, but it was based on an offline technology—and we'll talk about that as well.

Then the evolution to open payment, and open payment is open standards, that is, using banking card standards to deliver your fare collection system—really, it's taking advantage of what has been developed globally for the commercial world and bringing it to transit. Basically, the goal that we as a vendor have, and you as an agency should have, is that you want vendor independence. You want flexibility and design, ease of integration and, most of all, you want something that's future-proof, so once you make that investment, you don't have to reinvest in the system—something that can evolve as the technology does evolve.

I've used the term "open payment" several times, so if I could, I'll just give you a quick tutorial on what we talk about in terms of open payment and what does it mean. Basically, there are two main characteristics to open payments. One is an open standard. That means that the standard is publicly available and has various rights that are associated with it. It's established by the financial industry. You may have heard the term "PCI-compliant"; that's the payment card industry standard for security and how the card and the transactions are handled. It's also

important that it's independently certified. Again, it takes a lot of that away. It's taking advantage of what's commercially available rather than bringing it to the agency. It also runs on the global payment network. So again, the communication network is what is established as if you were to go into any Tim Hortons or any store that accepts bank cards. It runs on the same platform that's out there.

What that means to your riders and to your consumers is that you have MasterCard PayPass, you have Visa payWave, you've got the American Express contact list, but most importantly for you here in Canada, you have the Interac Flash card. You have something very unique here with that Interac card. I don't know if you'll appreciate that, but right now, I'm told that nine out of 10 Canadians have an Interac card in their pocket today, which means if you go to an open-payment system, as we're talking about today, nine out of 10 of the Canadians, residents of Toronto or wherever, have a card that can ride the transit. They don't need a separate card. They don't need a proprietary card to ride transit.

So why is it so popular? With that as a background, why has this whole thing become so popular? Well, we were involved, back in 2006 and 2007, in the New York-New Jersey transit trial that has been referred to, where we partnered with MasterCard Citibank and tested and demonstrated open-payment technology with the New York MTA. We expanded that to cover the port authority, New Jersey Transit and the MTA, demonstrating that technology can work on a bus as well as on the platform.

Based on that you have deployments now going on in Chicago, Philadelphia and down on the Orlando SunRail, which is a commuter rail line, and to Daytona Beach and Orlando—Lynx—all of which are using open-payment technology in deploying. There are procurements under way today for New York City, Washington D.C., Portland, Dallas and, I think it's worth noting, Calgary and Edmonton; both have RFPs in development for open payment as we speak.

The other reason why that's so popular here in Canada is that you probably lead the world—I am told through my banking contacts—in terms of having contactless cards in circulation. MasterCard tells me that they have over 25 million PayPass cards in circulation right now in Canada; Visa, I don't know their numbers; and of course, the Interac card. So you have a lot of cards already in use. MasterCard also tells me that every year their transactions that they record using contactless technology are increasing. So that means that every store where you can now—well, you can see that, if you're not familiar with it. The next time you go to check out, look at the credit card reader and you'll see a payWave or PayPass logo on that, so rather than swiping your card you can tap.

So the difference from a very high-level architectural standpoint is that the ticketing approach, again, is a card-based system; that is, your Presto system or your Opus system. So that means that you have, on the end, a proprietary ticket and ticket format, whether that's a magnetic stripe or a contactless chip. That is the fare

media that takes place. On the other hand, you've got a back office that has all your business rules and account management, if there is any. That has to be downloaded in an offline fashion to the reader. So the transaction takes place in a read-write fashion in an offline transaction. That is the way Opus is; that is the way Presto is. That was the standard in terms of smart card technology.

However, there comes open payment. Open payment means that you can have, in terms of the card type or the media type—you can use anything that is bank-card-certified, meaning an ISO 14443 communication standard. That means you can use—really agnostic in terms of any card that's out there, agnostic in terms of any bank that issues it. As a matter of fact, it doesn't even need to be issued by a bank; if you have an ISO 14443 student ID card, it can be brought into the system. Most importantly for today's generation, it can accept NFC technology—near-field communication technology—on your smart-phone.

**0900**

On the other side, the back office is where all your decisions are; that's where the management takes place. But it's an online transaction that we're talking about here, not offline. What does that mean? That means that at the reader, the only thing that reader does is capture an identifier from the card that's being presented, or the NFC chip on the phone that's being presented.

Because of that, one of the advances is that you can get a commercially available reader and put it out there in the field. You don't have to have proprietary technology on that reader. That means that any reader that is credit-card-certified can be part of your system. That's important in terms of a reload network and in terms of other access, bringing other services into the system, such as parking or anything else.

The other part that's important too is that it's real-time online transactions. That means that if I go online and I load some value to my account, that is instantly uploaded to that back office. I can walk out the door and tap on the bus, and my card is updated immediately. There is not the delay that the traditional systems do have. In the traditional card-based system, we're able to upload that system and say that if you auto-load, you can do that by the next business day, because of the way our communication and our network are set up. I understand from other systems that are around that it sometimes takes up to two to three days. That, I think, is a sign also to some communication.

As a reference, I'd like to play a short video. I've mentioned to you that we're in the process of deploying open-payment technology in Philadelphia. It's a project that we won after the TTC made the decision to go with Presto. We have the equipment deployed. We've started the final testing of it. The pilot test will start on the first of the year, and the big rollout will actually take place in April, in terms of the phase-out.

I think that, to describe open payment, I would like to use the words of our customer, SEPTA.

Do we have the sound?

**Interjection:** No audio?

**Mr. Sanford Weinberg:** No. It was working before.

*Interjection.*

**Mr. Sanford Weinberg:** Yes. We had it tested. It was working before.

**Mr. Rosario Marchese:** We're waiting for the technological side.

**Mr. Sanford Weinberg:** Let's go back to, I could say, the beginning of the tape, to roll back the tape, but that's the old technology. My kids would say you don't have tape anymore.

**Mr. Emechete Onuoha:** We wouldn't be a multi-national IT firm if we didn't run into the occasional IT—

**Mr. Sanford Weinberg:** There we go. This was made by SEPTA.

*Video presentation.*

**Mr. Sanford Weinberg:** That is a commercial. Now, I should have prefaced it by saying that the reason why it's just "SEPTA card" is that they have not officially announced their name. They're branding it, so what's actually going to happen in SEPTA once they announce that name is, that card will be a co-branded card that has SEPTA's logo and MasterCard's logo on it. It is basically a pre-paid debit card that they'll be issuing. Now, that is for those customers that are either unbanked in the United States or those customers that do not want to use their credit card for transportation purposes. If the customer wants to use their Visa, their MasterCard, they can. They don't need a SEPTA card to do that transaction.

I think the important thing I wanted to point out here is that you'll notice that there was no proprietary card that they were talking about, that even the SEPTA card uses MasterCard banking standards to do it, and it's more than pay-as-you-go. A lot of times, people talk about, "Oh, we accept credit cards." This is not just accepting credit cards. This is taking your credit card and you can link it to an account and you get the full benefits of any transportation product that's out there. That means that if I'm a senior, I can register my card and I get senior fares. If I want to buy a 30-day pass, I can buy that pass and it sits on my account. We refer to it as pay-as-you-go, which it still can do; for someone who gets off the plane and wants to take SEPTA, they can do that, pay as you go, or they can register the card. I think that's something that's worth noting.

The other thing is, I do want to note that the system that we are deploying in SEPTA was the system that we would have delivered to Toronto Transit, TTC. They actually were a couple of months ahead in the procurement process of where SEPTA was, and the solution that SEPTA has is the same basic specifications that we had with Toronto. I just wanted to summarize for you what an open-payment platform looks like, and then also, in doing that, it really is what TTC was looking to install.

As Eme had mentioned, essentially what you see here was a result of a negotiated procurement by TTC that took place, that we participated in along with two other vendors. In March 2011, the commission had before them approval of that contract. I have to compliment the

TTC staff in that I think it was probably one of the best-run negotiated procurements I've ever been part of. They got everything ironed out ahead of time in terms of specifications in the contract. In fact, when we submitted our bid, that bid actually had the signature of our president committing us to the price, terms and specifications in that contract. There's no wriggle room afterwards, after it would have been accepted.

Essentially, real quick, it would handle all the business rules that TTC had, and that means—70% of TTC riders transfer, so you have a very complicated system in Toronto, and the back office would be able to handle that. It would accept all bank cards and, again very important, it would accept the Interac card, which is very important for Canada, and it had included the acceptance of Presto, because that was one of the basic requirements of the TTC. We are listed as a certified vendor of Presto, so our equipment and our back office were going to be able to deal with that.

Essentially, that offer was a guaranteed cost for 10 years. It also had 89 service-level agreements, performance standards that we had to adhere to. Those performance standards were time, availability, accuracy, those types of things—performance requirements.

Then, after the MOU was signed and the commission decided to go forward with Presto, they negotiated with Presto for some 18 months, and then after that, around December 2012, was when they actually signed the contract with Presto.

In conclusion, what I wanted to end with is that in November 2011, the commission passed a direction—at that time, Gary Webster was the general manager—asking Gary to talk to Metrolinx and asking Metrolinx to work with ACS at the time, now Xerox, to help make their Presto solution compatible with what TTC requirements were. We embarked upon—the last two years, we've had multiple meetings with Presto, some very involved, some in which we've spent six hours. We brought a technical team up to work with Presto right after the initial issues in Ottawa were coming out.

At this time, they haven't taken that offer of help, but we still stand ready, as Eme said, to certainly support Presto in any way we can, and we certainly would participate in any kind of procurement process that might be started.

With that note—

0910

**The Chair (Mr. Lorenzo Berardinetti):** Well, Xerox is pretty efficient, because you're right on the 30-minute mark in your presentation.

We're going to start with questioning. There are three parties here, and it will be 25 minutes per party. We'll go around, and we'll start first with the Conservative Party. Mr. Yurek.

**Mr. Jeff Yurek:** Thank you, Chair. Thank you, gentlemen, for coming in today. It's a pleasure to hear from you. I do have a list of questions here, but in your presentation, you had a chart showing the evolution of the technology, and you're saying Presto is at the closed-card.

**Mr. Sanford Weinberg:** Right.

**Mr. Jeff Yurek:** And you have the open standard already up and running. Are you at the vendor independence yet, or is that—

**Mr. Sanford Weinberg:** The open standard really is vendor independence, because open standard means you're using banking card standards. For example, when we did the project in New York, we didn't use Xerox equipment. We used VeriFone equipment, just to demonstrate the true openness of it. We were able to take VeriFone equipment, mount it on the bus, mount it on the gate, and it worked with the system. That gives vendor independence.

**Mr. Jeff Yurek:** With the program the government is developing with Metrolinx, the amount of money they're dumping into it—and they're not quite there yet. When they are up and running—they're only in a handful of TTC operations right now with the Presto card—when that's fully implemented, they're still going to be behind the eight ball with regard to the evolution of technology and where we should be at. Is that correct?

**Mr. Sanford Weinberg:** Again, I don't know what goes on in their planning in terms of their design. What I have seen, in terms of what has been demonstrated, is that it does still have a proprietary card that's part of their solution, and they accept the credit card as your pay-as-you-go. In other words, they would accept credit cards, but not if you wanted any transit benefit; you'd have to have a Presto card.

But, again, that's only what I've seen publicly. I don't know what's going on in the backroom.

**Mr. Jeff Yurek:** Okay. I'll get back to the TTC in a minute. I just wanted to clear up some questions I had from when Metrolinx was here in committee last week.

The chair claimed that the Presto system was one of a kind and there's no other system in the world like it. It could be true, I guess; I don't know. That's what they're saying. But in your opinion, how does the Presto system stack up against the systems that are already here? I mean, you've talked about many that you yourself have implemented. How do they stack up to one another?

**Mr. Sanford Weinberg:** I've heard the term “world-class” used for it. I've heard “industry-leading” and that attached to Presto. I kind of think of the term “world-class” as someone who says, “This is the world's best cup of coffee.” It's obviously very subjective. It's very much into a personal opinion of what's there.

I can point to systems like in Paris, which is the Calypso standard, which has been around for 10 or 12 years. That provides a very, very stable system that meets a lot of, for Paris, their regional needs. It actually meets the needs of about 35 different other agencies worldwide. I certainly would point to Montreal, I think, as a standard.

But I'd rather tell you, what makes, or what defines, a world-class type of institution? I think you have to say, does the system meet the needs of the agency?

The benchmarks for any system: Does it lower operating costs? Does it raise revenues? Those are two main things. Is it providable? Is it reliable in terms of the

data that's provided? Therefore, in the operational sense, the data and the reconciliation taking place, is that accurate? Can they count on it?

Can it be used for planning? Does it handle the business roles for the agency? In other words, can it handle all the transfers that need to take place? That's a very complicated part to it.

How does it handle moving between one commuter rail line and the bus? How does it handle moving between one agency and another agency?

Is the equipment reliable? The management tools—does it meet all the performance wants?

More importantly, what also makes up, in my mind, a world-class—what about the riders? You have to worry about the agency, but what about the riders? What about the users of the system? You have to have a system that's reliable for them, that's easy for them to use, that's accurate and that they have confidence in. If they feel that the value that they put onto this card is not secure, not accurate, then they're going to be less likely to use it and they'll go back to currency, because they know that currency has value.

One of the nice parts about it, going back to bank cards, is that if you have confidence in the banks and you have confidence in the card, you're more reliant on them than another agency.

So I think you really have to say, in terms of world-class, does it really meet the need of the agency? Like I said, Montreal, I feel, does; Paris does; those are a couple of the world-class ones that I would traditionally point to.

**Mr. Jeff Yurek:** You talked about your agreement with the TTC that you were working out. It was an open system that you had worked out with TTC?

**Mr. Sanford Weinberg:** Yes.

**Mr. Jeff Yurek:** And you had guaranteed costs for 10 years.

**Mr. Sanford Weinberg:** Yes.

**Mr. Jeff Yurek:** My concern is that Presto is already developing a second generation and has already committed to \$700 million without an end result yet, which the taxpayers are paying for, not just people in Toronto. The whole province is paying this amount of money. In your guaranteed ten years' cost, did you eclipse \$700 million that would be charged to the taxpayer?

**Mr. Sanford Weinberg:** No, we did not. In terms of the way that that system was priced out, we provided all the capital costs. We were going to design it, build it, operate it and charge 5.75% for every transaction. We would then recoup our investment over 10 years, but that price was guaranteed for 10 years. Therefore, from a TTC standpoint, their costs were never going to go up. Actually, if their revenue went up, the costs would go up, but there was even a cap. So if they went through the roof on ridership, there would still be a max that they would ever be exposed to in terms of revenue.

Just to give you a benchmark in terms of investment, if you look at what Montreal, the STM region, spent, that system was bought, paid for, installed and operational with around \$90 million. If you look at what we're instal-

ling in SEPTA today, which is a complete ground-up installation of equipment and bringing the open payment technology to Philadelphia, that price tag is \$120 million.

Without telling you what we would have budgeted to cost and capitalize the TTC, I think you can get an idea for what a system would cost from a competitive standpoint to provide a smart card platform or even an open-payment platform.

**Mr. Emechete Onuoha:** Just to add on to what my colleague has mentioned, the other consideration is risk, not just in terms of cap ex, but just in terms of operating risk. One of the considerations associated with the architecture and the offer that we were asked to provide to the Toronto Transit Commission was providing an assurance that we would eat the implications of operating risk. What I mean by that is, non-performance associated with the functionality of the system was actually something we had to commit to absorbing the cost of. In the most simple terms, if the system that we deployed actually were to fail, revenues at risk for the duration of the period of time that the public transit fare collection system was down would be the liability of Xerox. This was something we committed to in the context of that particular undertaking, again, to mitigate the risk to the taxpayer.

**Mr. Sanford Weinberg:** In terms of the risk, the reason why we feel comfortable in that is that we have developed the open-payment online technology so that we can authorize that transaction in the 500-millisecond range, the speed that you need in terms of transit. That technology is up, and we co-developed it with MasterCard. That's what we piloted and demonstrated in New York. That is a real risk manager, in terms of not being stuck with a credit card transaction and the security that needs to take place that you need right now. If you go to the store, they run it to make sure your card is authorized.

**0920**  
A lot of that technology exists. The technology that we developed with MasterCard can be licensed by other vendors as well, so this is not—again, I want to stay away from anything that you think is too proprietary. MasterCard can license that and has licensed it to another company already, so it's something that's out there.

**Mr. Jeff Yurek:** Now, if the TTC had signed on and given you the contract, how soon would this system have been up and fully running through the TTC?

**Mr. Sanford Weinberg:** I would say it would be operational now, timing-wise. If you just look at what happened with SEPTA, it was signed in November or December 2011, and it's going operational now, so that's about, what, 18 months in terms of start-up. So it would probably be operational now.

**Mr. Emechete Onuoha:** And the SEPTA example, as Sandy mentioned, Mr. Yurek, in the case of the South-eastern Pennsylvania Transportation Authority, they actually weren't as far advanced as the TTC was at the time that the TTC had undertaken its procurement exercise.

**Mr. Jeff Yurek:** So what you've said so far is—I'm just trying to put this together here. We're offering an

open-source or open-platform technology which was up to date, taking all the risk, guaranteeing costs for 10 years, and the process would have been up and running by now, compared to a system that the government has set forth, which is that we don't have a product up and running across the whole area that needs to be covered. Their implementation date is 2016, from Mr. McCuaig's review, and we're probably going to have a technology that is going to be inferior to what should be put in place, and it's costing the taxpayer, to date, what is projected to be \$700 million, which is open-ended at the end. Does that sound like a good deal for the taxpayers of Ontario?

**Mr. Emechete Onuoha:** Well, Mr. Yurek, it's certainly not our place to determine, from a public policy standpoint, what's in the best interest of the taxpayers of Ontario. I leave that to you and your elected colleagues around the table. However, I can say that the cost structure and the business model associated with what we know to be true, based on publicly available information that's been provided to us, is somewhat irksome and certainly is inconsistent with the best practices that my company is familiar with in our global undertakings.

**Mr. Jeff Yurek:** Thank you.

**The Chair (Mr. Lorenzo Berardinetti):** You have about three minutes left; then I'm going to rotate around.

**Mr. Jeff Yurek:** Okay. I just want to finish up my questioning on this part.

I don't want it to sound like this is the first contract you've lost. I'm sure you've lost others. Can you tell us about other competitive processes that maybe you weren't successful on and how you've adapted and moved on?

**Mr. Sanford Weinberg:** In terms of fare collection, obviously we don't win them all in terms of that standpoint. We have lost traditional smart card deployments and those kinds of projects. We lost one a couple of years ago in Calgary that was a traditional smart card platform, although that may be coming back around because that company, Telvent, was in default and now they're calling for a bid again. So we've lost that; we've lost those kinds of contracts. SEPTA was obviously one that we won. We participated in Chicago's procurement process. At the very end, we did withdraw. We did not submit a bid because we felt the contract terms did not meet Xerox best business practices, from that standpoint. I'm not sure where—we have a list of where—obviously, we've won in other cities around the world and continue to win projects, but we realize we're not always going to win them all. But we do feel that when it comes to open payment, we have a very good solution that's as close as you can to off-the-shelf technology.

**Mr. Frank Klees:** Could I just borrow a couple of minutes?

**The Chair (Mr. Lorenzo Berardinetti):** Another minute.

**Mr. Frank Klees:** Just to follow up on this.

**The Chair (Mr. Lorenzo Berardinetti):** Okay.

**Mr. Frank Klees:** Just in follow-up to my colleague's question, have you ever experienced having signed a

contract, and been as far down the road with a client as you were with the TTC, and had a contract cancelled at that stage?

**Mr. Sanford Weinberg:** I can't say. At least in my experience in the fare collection world, no, I have never been through a negotiation where we agreed to all the terms, all those aspects of it, and, like I said, signed it. I've never had it not go through at that point.

**The Chair (Mr. Lorenzo Berardinetti):** We can come back to that, because we're going to have another round.

We'll go to the NDP. Mr. Marchese.

**Mr. Rosario Marchese:** Thank you both for your presentation. The problem with your presentation is that you answered most of our questions. That's a problem. You should have said less, so that we could ask more questions, and then you could have answered those.

But it does present the problem that some of us have been talking about for quite some time. The problem is that Toronto is one of the biggest customers in the whole GTA. They represent 80% of the whole system.

You were negotiating a deal with the TTC. I think most of the Liberal members will admit that the TTC has got a great deal of experience—they lack money, but I think they have a great deal of experience—to be able to manage their system. I recall the debate, with Giambrone as the chair, and obviously Mr. Webster was at its head.

You had, I'm assuming, multiple meetings with them, where you went through this presentation, and they were all persuaded by the system. Is that not correct? Were there any members of the TTC who disagreed with your presentation and what you had said, or were they all in favour of what you were proposing? I don't remember.

**Mr. Sanford Weinberg:** We certainly were not aware of anyone who was opposing it. From the staff, you mean?

**Mr. Rosario Marchese:** Staff—or what about the TTC members? You met with them all, right?

**Mr. Sanford Weinberg:** We met with them—no. Because of the procurement process, we did not meet with any of the commissioners ahead of time.

**Mr. Rosario Marchese:** Okay.

**Mr. Sanford Weinberg:** We did have an opportunity to meet with them after they elected to go to Presto. We asked, and the commission agreed to allow us to go around, so we were escorted by TTC staff—it was actually arranged by TTC staff for us to go around and meet with all the commissioners.

Really, with the exception of one commissioner, every one of them said they didn't understand why they didn't take this deal and why the deal didn't work.

But just to clarify the way the negotiated procurement went, it started—they came up with a short list of vendors, and they had parallel negotiation meetings with each one of the vendors on two topics: (1) the specifications; (2) the Ts and Cs. That's how we did it.

**Mr. Emechete Onuoha:** Mr. Marchese, if I may add—

**Mr. Rosario Marchese:** You'll probably get to it, through my questions. Otherwise, I will have very little to ask.

**Mr. Emechete Onuoha:** Okay.

**Mr. Rosario Marchese:** The problem was that, as Mr. Yurek just said, this system, the Presto system, is going to be one of the most expensive systems in the world, the Auditor General declares in his report, which I'm assuming you read.

**Mr. Emechete Onuoha:** Yes, sir.

**Mr. Sanford Weinberg:** Yes.

**Mr. Rosario Marchese:** So they have Presto. Because Toronto and Ottawa had not agreed to buy in, they came up with Presto Next Generation, which brings the cost up to \$700 million. We think that's an incredibly huge amount of money that has gone into a system which still is not fully implemented. I'm not sure whether that \$700 million is going to stay there or increase.

In your experience—and you don't have to be political, but just in your experience—\$700 million, as Mr. Yurek was saying, is a lot, and you could have done it for a much cheaper price. Did you tell us earlier how much your system might have cost, or not? More or less?

**Mr. Sanford Weinberg:** When we submitted the bid to Toronto, it was at 5.75%. The way the TTC bid was set up, it wasn't an amount; it was based on a transaction amount. So 5.75% was what our cost for a transaction was going to be. It was a minimum and a max. It would never go beyond the maximum, in terms of that.

**Mr. Emechete Onuoha:** With zero capital costs.

**Mr. Sanford Weinberg:** Zero capital costs, and they wouldn't start paying until the system went operational on that.

**Mr. Rosario Marchese:** No, I recall that, because as I read the report from the Auditor General, he was saying, at the time, "Under the terms of the agreement, the TTC would not have had to pay any capital costs up front"—

**Interjection:** Correct.

**Mr. Rosario Marchese:**—which is a big deal in my mind. "Instead, the vendor was willing to take a percentage of the revenues collected by the open-fare system."

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**Mr. Emechete Onuoha:** Right.

**Mr. Rosario Marchese:** "In its proposal to the TTC, the vendor had also agreed to make its system compatible with the existing Presto base system. The TTC abandoned this option after the province confirmed that provincial gas tax funding and provincial funding for the purchase of new streetcars and the rapid transit system on Eglinton Avenue would be contingent on the TTC signing on to Presto."

Then it moves on to the recommendation here in this report from the Auditor General, where it says, in the response of Metrolinx, "A comprehensive review of Presto Next Generation ... technology was undertaken by independent advisers"—whoever they might be—"who confirmed that the development of PNG"—Presto New Generation—"was fair and created value for money...."

Do you have an opinion on that? Again, try not to be political, of course. Just try to give an expert—

**Mr. Emechete Onuoha:** We do have a view. I'll defer to my colleague on that one.

**Mr. Sanford Weinberg:** I have seen that report. I've seen the survey. Given an opportunity, I would probably question some of the assumptions in the way the scoring happened on that report—

**Mr. Emechete Onuoha:** The other consideration—sorry, if I may interject, Mr. Marchese—

**Mr. Rosario Marchese:** Sure.

**Mr. Emechete Onuoha:**—is, that report which is referenced by the Auditor General was not a value-for-money audit. In order for the findings of that particular report to be compelling and directional with respect to an intelligent business model and critical assessment of risk, it would have had to have been subjected to a value-for-money audit. The language used to describe that particular report is fairly deliberate insofar as it does not purport to characterize said report as a value-for-money audit by the independent entity.

**Mr. Rosario Marchese:** I see. It's interesting, because the way it reads, it suggests that it was a value-for-money kind of a—

**Mr. Emechete Onuoha:** Audit.

**Mr. Rosario Marchese:**—audit.

**Mr. Emechete Onuoha:** Yes.

**Mr. Rosario Marchese:** It says here, "The VFM"—value for money—that's what it says here—"analysis identified concerns with retendering the work, including increased project costs and risks associated with the introduction of new vendors, increased project timelines and the loss of efficiency." Can you speak to any one of those items?

**Mr. Emechete Onuoha:** Sure. Just with respect to risk, which is something that we take very seriously in our company and associated with these projects, it presents the customer with a great deal of concern.

One of the issues is that the platform that was offered up by the system integrator was not necessarily an established platform. As my colleague Mr. Weinberg presented, the Atlas platform upon which the system that we offered to the TTC is based is an established technology versus a technology that, post-contract, we undertook significant construction and development work to actually achieve.

When you have a scenario such as that, the risks associated with vendor management, particularly if the primary integrator is not in possession of core key technology—the risks associated with managing a number of vendors goes up dramatically. As a result, with respect to the platform that the province, through the transit agency, Metrolinx, pursued, the risks associated with managing a new platform, developing technology that was not in the possession of the primary vendor in the first instance, as well as trying to do what some have described as herding cats associated with multiple vendors underneath the platform—this creates additional risk.

I'll yield to Mr. Weinberg for additional nuance.

**Mr. Rosario Marchese:** Just to pursue it, because what troubles me is, this whole affair started in 2006, and they're saying that this whole affair will probably be up and running in 2016. In your experience, does something like this take 10 years or possibly more? Should it take that long?

**Mr. Sanford Weinberg:** No. If you look at the original Presto solution, which was a good idea, and is a good idea, in terms of the technology that was available in 2006, which was a card-based system, which is why Montreal went with that system, which is why Paris is with that system, which is why Warsaw is with that kind of technology—it was good, and those are up and operational. It's unusual—the issues that Presto experienced, from my experience in the industry, are not typical. It's atypical, taking 10 years to get that platform going.

I think there are some reasons for it, and it's very obvious if you look at the qualifications of the different vendors that are involved. Some of our competitors could have got it up in the same kind of timeline that we would have, which is 18 months. Even for a very long one, two years or two and a half years for some real unique things would be a timeline that would be typical for that kind of system.

**Mr. Rosario Marchese:** And is it fair to say that the Presto technology is outdated at the present time or will be outdated soon? Is it a fair comment to make, or is it something that is still, as they said and as Mr. Yurek was quoting, a world-class, industry-leading fare system? Is it still a fair comment to maintain?

**Mr. Sanford Weinberg:** A card-based system is still a good system, it's still technology, but it would be the same thing as saying that VHS tapes are still good and CDs are still good. However, the generation that's going to be riding the bus doesn't want to use a CD; they want to download their music from Pandora or whatever website they're going to download it from.

**Mr. Rosario Marchese:** Right.

**Mr. Sanford Weinberg:** I think that's where it is, just because it's not bad technology, when it works, but the new technology—open payments—is really where the industry is going technology-wise. If you look at all the major procurements in the industry, they're all based on account-based open-payment technology.

**Mr. Emechete Onuoha:** This is indeed the future, but I would say that the future is already here, Mr. Marchese. It's just unevenly distributed.

**Mr. Rosario Marchese:** Yes, I agree. Thank you very much.

Mr. Chair, I don't know how much time there is, but maybe—

**The Chair (Mr. Lorenzo Berardinetti):** About two minutes. Under two minutes.

**Mr. Rosario Marchese:** Okay. I have different kinds of questions for the next round, so unless Monique has any questions, I'll come around.

**Miss Monique Taylor:** I don't have a lot of questions. I just would like some clarification on a few things.

When you were talking about the open-payment cards, you mentioned that the readers would be—I'm not sure. Did you say that when you use a Visa, the Visa would automatically be able to read if it was a senior's pass? How did that work?

**Mr. Sanford Weinberg:** The way that the system was designed is that you have the card reader, which is a bank-card-certified reader. The same one that's at Tim Hortons would be on the bus, technology-wise. It would read the account number. The account number is what is registered in the back office. Because it's online, in real time, it goes back to the back office and says, "Yes, this is a valid card," and they're able to board. It then will go to the account and say, "This account is linked to a senior citizen," or "This account has a 30-day pass on it."

**Miss Monique Taylor:** Okay. So I would have to register, say, my debit card, to register as such?

**Mr. Sanford Weinberg:** If you wanted. There are two things. One is, yes, if you wanted—and then that's a business role, but assuming they'd want you to register to take advantage of any transit benefits. Or you can have something which we call best fare, which would automatically, anonymously, give you a discount after, say, 10 rides. We did that in New York. If you rode 10 times in a week's period, you got a 10% discount. You can do some of that anonymously, but the agency, from a business standpoint, would want to get you to register.

**Miss Monique Taylor:** And a rider wouldn't even have to register for something like that. The back end would have just put on that promotion and it would have gone on as such.

**Mr. Sanford Weinberg:** Right.

**Miss Monique Taylor:** Quite interesting. It's a shame that we're not able to use that kind of thing and we have to actually go and purchase a card to be able to do that. I'm from Hamilton. You have to go directly to a certain area, which is only open at certain times of the day, to be able to purchase this card. To purchase it on a student pass or something like that, I hear of a lot of hindrance when folks come to Presto.

I'm also curious about risk absorption. I read in the Auditor General's report that there were quite a few costs for fixing problems that existed within the Presto system. So your system wouldn't have charged any of those costs?

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**The Chair (Mr. Lorenzo Berardinetti):** This will have to be the last answer.

**Mr. Sanford Weinberg:** We were not going to correct anything in Presto.

**Miss Monique Taylor:** No, no; I'm sorry. If there was a problem with your system, would we have been charged for those corrections, or were they part of—

**Mr. Sanford Weinberg:** No, they would be part—we would be responsible because performance change orders, those types of things, would probably be covered by the SLAs. We would have to meet that performance under the SLAs. I think that's what your question was.

**Mr. Emechete Onuoha:** It's a very good question that you're asking, Miss Taylor. If the change order that

was requested was outside of the scope of the contractual obligations we signed up to, then the cost would not necessarily be borne by us. But if the change order was issued in order to meet the pre-established and agreed-upon operating requirements, that's our risk.

**The Chair (Mr. Lorenzo Berardinetti):** We'll move on now to the Liberal Party. Again, there's 15 minutes for this round. Ms. Albanese.

**Mrs. Laura Albanese:** Thank you for being with us this morning and for your presentation. I also want to take a moment to thank you for considering Ontario one of the most important markets for your business and for growing our knowledge-based economy. That's very important in our province.

I wanted to start by asking you, if Xerox had implemented their system, then the residents all around Toronto—I'm thinking of Mississauga, Oshawa, Vaughan. There would have been two different cards in play. The convenience for the consumer and for the commuter would not have been ideal, wouldn't you think? I know you mentioned that you would have included the acceptance of Presto, but still, people would have had to deal with two cards.

**Mr. Sanford Weinberg:** Yes, there would still be two cards, but the ability to—the main thing you're questioning is how they would handle themselves going from one agency to the other, transferring from GO, perhaps, to TTC. TTC recognized that as their responsibility, to handle their customers—how they were going to handle that. We had a number of different provisions in the system that they had designed into the system, one of which, obviously, is accepting the Presto card. So you'd be able to use the Presto card going from GO Transit to TTC. You wouldn't need to use more than just your Presto card if you were a GO Transit rider using the system.

There are a couple of other scenarios that we worked through—the what-ifs—and we had contingencies based into the system that they wanted to meet that requirement.

So the answer to your question is, yes, if they were just running around in another area, the 905 area, they would still use GO Transit—the Presto card. If they were going to come in to the TTC, they could still use their Presto card. That was part of the requirements.

**Mrs. Laura Albanese:** If I've got this right, the owner of a Presto card would have been able to come into Toronto and use it on the TTC system, but if you had—well, you can't call it a SEPTA card, but a Xerox card, let's say—then you would have had to purchase the Presto card to go outside of Toronto?

**Mr. Sanford Weinberg:** Yes, because Brampton, York, Mississauga—if they were not on an open-payment system, then yes, whatever card you were using to ride the TTC would not be accepted on that—

**Mrs. Laura Albanese:** On the other system.

**Mr. Emechete Onuoha:** Just to clarify, Ms. Albanese, the offering and the solution that was proposed by Xerox to the Toronto Transit Commission did not

necessitate the creation of a new, dedicated card that would be branded under a separate name from Presto. In fact, what's worth noting is that the offering was actually intended, as we have described to the TTC and to Metrolinx subsequent to the termination of the procurement—the idea is to use the technology to actually make Presto work.

The utility of having an open architecture, which Mr. Weinberg mentioned, is that in a system such as that pursued by many of the transit agencies, whether it's Waterloo or other transit agencies, the benefit of having an open architecture is that an individual—for the sake of convenience, as you identified—who already has a payment media card, whether it's a credit card or a debit card, would be able to use that seamlessly throughout the systems that were on the open architecture.

I think the nuance there—I understand the logic of your question, but the nuance there is the potential misinterpretation that the offering that we were bringing forward necessitated the creation of a new, singularly situated payment card. That is not necessarily the case.

**Mrs. Laura Albanese:** Okay. Are you currently implementing an open-payment system on a large transit system the size of the GTHA?

**Mr. Sanford Weinberg:** SEPTA. SEPTA is Philadelphia; it's the sixth-largest transit agency. I think Toronto is right now the third in North America, behind New York and Mexico City, in terms of their ranking on where that list stands. So, yes, it's been implemented in SEPTA. One of our competitors is implementing it now in Chicago, and, a little bit smaller, down in Orlando, SunRail. And Daytona Beach is getting that platform right now, being implemented as we speak.

**Mrs. Laura Albanese:** And they're more or less the size of our region, let's say?

**Mr. Sanford Weinberg:** The Philadelphia one would certainly be up to that size. The Florida one, the SunRail one, has a lot of the same characteristics in that it's bus, it's commuter rail and it covers a geographic area from Daytona Beach to Orlando, kind of a geographic area—a multi-agency kind of thing.

New York City, which maybe by their definition is the largest and most important out there, are the ones who actually tested this technology and are the ones who now have a procurement that's under way.

**Mrs. Laura Albanese:** Why was there a delay between ACS, Xerox, getting the contract and the TTC cancelling the contract?

**Mr. Sanford Weinberg:** There wasn't any real delay. The procurement process started in August 2010. They down-selected to the three certified vendors in September. The negotiations, parallel, went on September to December. We submitted the final—we signed the master agreement; it was referred to in January, or maybe it was the first week of February. It was my understanding that the committee had done the final approval of it and it was supposed to go to the March commission for approval. So I don't know the delay there.

Once they decided—in March till May is when they were kind of internally debating the Presto offer back and

forth. Then in about the May time frame, I think the commission said, because of the finances involved, they were going to go to the Presto. From that point, it took 18 months for them to actually come up with the final agreement with the TTC.

**Mrs. Laura Albanese:** I think you mentioned that earlier as well. Xerox/ACS offered a no-money-down approach to the TTC, but you planned on recouping your costs through the back-end agreements. Am I correct about that?

**Mr. Sanford Weinberg:** Yes.

**Mrs. Laura Albanese:** What was the cost per transaction for the Xerox proposal for the TTC?

**Mr. Sanford Weinberg:** It was 5.75%.

**Mrs. Laura Albanese:** So 5.75%.

**Mr. Sanford Weinberg:** Again, that model was specified by the TTC. The way that they wanted it, that's how we priced it; that's how we submitted it. They didn't want any capital investment on their part. They wanted us to handle the capital and the risk.

**Mr. Emechete Onuoha:** The other issue from an operating standpoint, Ms. Albanese, is that the idea, the conceptual framework, was such that my company would get paid based on performance of the system. So, basically, if we kept up our end of the bargain and delivered the system that the agency wanted without flaws, without catastrophic failure, we would get paid as a function, again, of performance, which is a compelling risk mitigator in terms of operation.

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**Mr. Sanford Weinberg:** In terms of the cost too, I should mention that Presto, I believe, is at 5.25%. That 5.25% came—their cost, their offer came after ours was public knowledge. They did not participate in the procurement process. Our offer was already public knowledge at that point, because it was being processed.

**Mrs. Laura Albanese:** Yes, and I understand that Presto offered the same deal at 5.25%.

**Ms. Mitzie Hunter:** Less actually.

**Mrs. Laura Albanese:** Was it less?

**Mr. Sanford Weinberg:** Just under our number.

**Mrs. Laura Albanese:** Yes, around that. So they were able to save significantly, a good amount of money for the taxpayers per transaction.

I wanted to ask you about the SEPTA system. My understanding is that Xerox was awarded the contract in 2011, and it was reported that a year into the contract, Xerox had only completed less than one half of 1% of the work. Why did your organization encounter this delay? Were there significant problems?

**Mr. Sanford Weinberg:** Can you say that again? I didn't understand what you're—

**Mrs. Laura Albanese:** It was reported that a year into the contract, Xerox had only implemented less than one half of 1% of the work.

**Mr. Sanford Weinberg:** That was reported where?

**Mrs. Laura Albanese:** I believe that this was from the local media.

**Mr. Sanford Weinberg:** In a project like that, there are different milestones that are scheduled in terms of deliverables and those types of things, in terms of software development, hardware development, those types of things. At 12 months into the project, there was nothing that was scheduled to be delivered in terms of completion, if you will. We were still in the final design phases and approval of it, so that performance milestone doesn't have any real bearing on our ability to deliver.

If you talked to Philadelphia today, we are on schedule for where we are. Has the schedule slipped? Yes, and we admit it—a few months. But those are because of mutually-agreed-to things that Philadelphia and we agreed to because of different design constraints. There are a lot of old facilities that we have to install into.

**Mrs. Laura Albanese:** I did find my quote here from the Philadelphia Inquirer, from October 9, 2012. Xerox/ACS had provided Septa with “5,600 steps that must be completed to make the smart-card system a reality. So far, only about 30 have been completed.” I just wanted to be exact. I wasn't just—

**Mr. Sanford Weinberg:** I can assure you those steps—if they were at that point, we've definitely caught up on those milestones.

**Mrs. Laura Albanese:** I'm going to get ready to hand it over to my colleague. I just had one last comment. You do know that Metrolinx will need to re-procure in 10 years, and that would open the door to Xerox to bid at that point—

**Mr. Frank Klees:** A billion dollars later.

**Mrs. Laura Albanese:** Well, you wouldn't agree. To your point, Mr. Klees, they're not locked out of the contract forever.

I'll pass that over to my colleague Mitzie Hunter.

**The Chair (Mr. Lorenzo Berardinetti):** Before you start, there's about two minutes left.

**Ms. Mitzie Hunter:** Thank you.

You've discussed open payments, mobile payments. Just to clarify, were any of those available on North American transit systems in 2006?

**Mr. Sanford Weinberg:** In 2006, when Presto was originally procured, you mean?

**Ms. Mitzie Hunter:** Just in any system.

**Mr. Sanford Weinberg:** The year 2006 was when the New York/New Jersey Transit trial was beginning to participate. So in 2006, no. The industry standard was a card-based system. That's why Montreal went with it. That's why the Presto platform was a card-based system.

**Ms. Mitzie Hunter:** You've talked about off-the-shelf, open-source architecture. Is Presto not an open architecture system?

**Mr. Sanford Weinberg:** No. It's closed. It's proprietary to Presto and to Accenture.

**Ms. Mitzie Hunter:** But does it not use an open architecture format?

**Mr. Sanford Weinberg:** No. It's closed. You have to take their proprietary application that is loaded onto the card, that's loaded onto the reader, in order for that communication to take place.

**Ms. Mitzie Hunter:** Okay. And does it use off-the-shelf software and an open architecture in its structure, to your knowledge?

**Mr. Sanford Weinberg:** I believe they use some Microsoft software for their platform, so I suppose you could say that's off the shelf. But the actual way it's designed and built is proprietary to it. From the account standpoint, it would be built to Presto/Accenture standards.

**Ms. Mitzie Hunter:** And are you aware that the evolution of Presto will include an open-payment system as it's migrating forward?

**Mr. Sanford Weinberg:** I know that that has been their intent. I know that when they signed the agreement with the TTC in December 2012, they said to the TTC, "We will give you what you want. What you want is what's on that screen, which is open payment." I know what they've demonstrated is not open payment; it is pay as you go, as I said—that technology.

We had a lot of discussions. When Steve Zucker was head of Presto, we had a six-hour meeting where we brought a lot of our technical staff up here. We went through the architecture, and we showed them what they need to do to make—their staff identified about four or five areas that they know that they didn't have. And so, yes, they may be going there, but you'll have to see where they are with their design.

**The Chair (Mr. Lorenzo Berardinetti):** Okay. We're going to have to go around. Every party will now get 10 minutes for questions, and we'll start with the Conservative Party. Mr. Yurek?

**Mr. Jeff Yurek:** I'll start. Thank you, Chair.

You mentioned a few minutes ago that the TTC asked that the capital expense be bundled into the response to the RFP's cost structure. I guess it's just a simple question to ask, but why would they do that?

**Mr. Sanford Weinberg:** I believe they didn't have the capital to purchase the system. I believe that they probably wanted to use the capital they had to buy new rail cars and other equipment.

From a modelling standpoint, we've done a similar model in Lyon, France and in León, Mexico. We've done that elsewhere in the world—Lima, Peru—where some agencies don't have the capital funding available, so they go to a third party to provide the financing.

**Mr. Jeff Yurek:** And then they changed their mind once the government stepped in. Can you go over what happened?

**Mr. Sanford Weinberg:** Well, I think the government actually is going to—the Presto offer matched our offer. The TTC is still not going to have any capital money. The capital investment is going to come from—Metrolinx, I guess, is going to finance whatever the investment is.

**Mr. Jeff Yurek:** And Metrolinx is owned by—

**Mr. Sanford Weinberg:** It's the government.

**Mr. Jeff Yurek:** —the government.

**Mr. Emechete Onuoha:** A state-owned agency—

**Mr. Sanford Weinberg:** —the government, yes.

**Mr. Jeff Yurek:** Okay.

**Mr. Sanford Weinberg:** I'll let you fill that blank in.

**Mr. Jeff Yurek:** So basically you're developing this product for other systems, and your research and development charges, you're taking care of that. In your own business model, it's not being charged to your customer. I imagine the price that you charge over time, you will recoup it, but that allows you to reinvest in your company and come out with the next-generation product that, of course, we'll want to bring into the system sometime.

So to me, it seems like Metrolinx steps in and goes, "Well, we'll take care of the capital or the research and development." Basically, would you think now that—I guess the taxpayer itself is now funding the research and development of a product that's already going to be available in the marketplace, and you're not the only one in the world with this product, I'm sure.

**Mr. Sanford Weinberg:** I suppose that's where the \$700 million—or the Auditor General said something about \$954 million. I'm not sure where all his numbers come from, but I'm sure that's probably why the bill is what it's probably going to be, to cover all that development.

**Mr. Emechete Onuoha:** But, Mr. Yurek, your line of questioning is actually quite interesting in the sense that I think what you're alluding to is the prospect that the state-owned agency is actually using the taxpayers' resources to finance their learning and development exercise associated with trying to figure out the platform, versus the deliberate investments of a private sector enterprise, such as ourselves, that has an established research and development capacity that helps not only mitigate the risk of basic operations, but accelerates the learning and the customer-centric, customer-driven solution and constant improvement process. Your question is quite a good one in terms of who eats the costs associated with learning as the system develops, grows and evolves.

**1000**

One of the imperatives that guides the Xerox approach to these and other similar undertakings is the commitment to continuous improvement. In fact, we have a research and development imperative—we refer to it as "dreaming with customers"—where we bring customers in so that we can all create some potential solutions based around problem sets that weren't envisioned when our business relationship was initiated. This is an established practice that is standard in our research and development operations. Your question is quite an interesting one and certainly is relevant to the approach that we take to going to market.

**Mr. Sanford Weinberg:** I think the other thing, of course, that you might want to know is, who owns the IT for that software? I think the Auditor General even addressed that point as well.

**Mr. Frank Klees:** If I could just follow up on that, obviously it is Accenture who ultimately owns that technology, and Accenture has the right to market that technology worldwide. My understanding is that Metrolinx

has ownership of that technology strictly for Canada. Accenture is obviously in the business of developing technology, and making a lot of money at doing that. I'd be interested to know, in your worldwide experience, how often is Accenture a competitor for this technology?

**Mr. Sanford Weinberg:** Obviously Accenture can compete against us in a number of other areas—tolling and other things. In terms of fare collection, they were competitors in SEPTA—and they were not the chosen one, obviously. They participated in Chicago's; they were not the final one that was awarded in Chicago.

They are competing with us right now for Washington Metro. They are one of three finalists, and we are one. Another company—Cubic—and us are the three finalists for Washington. They didn't compete with us in SunRail; they didn't play down there. I don't know if they're going to be up in Portland.

Really, worldwide, Accenture has one other installation, and that's in the Netherlands. The partner that they have in the Netherlands is not their partner here in Toronto, with Presto. I think that was probably one of their issues. They had a partner that helped develop and deliver the Netherlands, and that partner was not their partner in Toronto. They don't really have a lot of fare collection depth.

**Mr. Frank Klees:** Thank you very much.

**Mr. Jeff Yurek:** In regard to that—

**The Chair (Mr. Lorenzo Berardinetti):** Another four minutes.

**Mr. Jeff Yurek:** Four minutes.

Waterloo has put out an RFP for their system. Are you bidding on the Waterloo proposal?

**Mr. Sanford Weinberg:** Yes. We've met with them and presented, and responded to their RFI.

**Mr. Jeff Yurek:** So you're able to meet all the requirements they've put in the proposal to adequately deliver the system that Waterloo has been asking for?

**Mr. Sanford Weinberg:** Yes. We've definitely been responding.

**Mr. Emechete Onuoha:** Mind you, the RFP has not been issued on the street yet, but in terms of the RFI and the preliminary requirements, we are definitely able to achieve all of them.

**Mr. Jeff Yurek:** Presto, in a memo sent from staff, stated that they won't be involved in the RFP because of some functionality gaps and the fact that they'll only deal with them through a memorandum of understanding, much like the TTC. Do you have a fear that the heavy hand of the government might come forward and cause Waterloo's system to also abandon a request for proposal and sign a memorandum of understanding?

**Mr. Sanford Weinberg:** To be honest, yes. It would be the third time. The first time they actually came in was on OC Transpo, because OC Transpo was talking to Gatineau, across the river there, about doing the system that they had. Then, because of funding issues, they went with Presto. Then Toronto. So Waterloo could feel that same challenge.

**Mr. Jeff Yurek:** Thinking as a company strategy going forward, if the government of Ontario continually steps in, overrides RFP processes and forces a certain product, what's the reason for Xerox to actually stay and offer a competitive, low-cost product to the people of Ontario?

**Mr. Sanford Weinberg:** Hope springs eternal.

**Mr. Emechete Onuoha:** I might add as well that, as we stated earlier, the province of Ontario is of strategic importance to our company. We believe in the Canadian market, and indeed the province of Ontario, being as it is one of the most significant trading entities in North America and indeed invariably the third- or fourth-largest trading partner with the United States. This province, we believe, is a source of potential innovation for our company, which is one of the reasons we've invested so much in our R&D and knowledge platforms here in Canada and in Ontario.

Our commitment: We are committed, as a company, to behave responsibly as a corporate citizen. We understand there are, from time to time, suboptimal decisions that are made by enterprises; we make suboptimal decisions at times as well. But our focus, Mr. Yurek, is really on committing to helping develop the economic resilience of Canada and of Ontario. We established our research operations in 1974. We're the only company in our multinational competitive space that actually undertakes value-added, advanced materials research—near your riding, actually—in this country. So we have a cultural commitment to Ontario; we have a cultural commitment to Canada. The culture of our corporation is very much in line with the desire for innovation and the pursuit of economic resilience in Canada. So our commitment and our willingness to step up and to appear, whether it's before a committee or to present for potential procurement opportunities, has more to do with the culture of ambition and cultural alignment between Xerox Corp. and the province and people of Ontario.

**The Chair (Mr. Lorenzo Berardinetti):** Okay, I have to stop there, thank you very much, and go to the NDP. Ms. Taylor?

**Miss Monique Taylor:** I just have a quick question. We talked about zero capital cost, and you said there was a minimum and a maximum. What is the maximum?

**Mr. Sanford Weinberg:** The way the bid form was, you really had three numbers that you filled in. One was the percentage of what you were going to charge for a transaction—

**Miss Monique Taylor:** The 5.34—

**Mr. Sanford Weinberg:** Right. Then they had a formula that guaranteed us a minimum. That was the formula they had that decided on what the minimum was. The max was an arbitrary number that we picked, in terms of what is the max. At the time, and I'm going from memory, our price was going to be about—if you look at what their current transaction model was, we were running about \$50 million for what it would cost them. I think our cap was around \$60 million and our minimum was about \$45 million.

**Miss Monique Taylor:** The \$60 million was—

**Mr. Sanford Weinberg:** —for operational costs, right. Right now the TTC had calculated that it cost them 7% to do their fare collection. Right now, they run about \$1 billion in revenue. So if you do that math, it was costing them about \$70 million to run their fare collection system. Our price was 5.75%, so that was going to be, at their 7%, about a \$16-million savings. You factor in some things, like we weren't handling cash—you have to factor some of that back in—but the idea was that it was going to lower their costs.

**Miss Monique Taylor:** So it would have been way much lower than the Presto system?

**Mr. Sanford Weinberg:** Way—look, I'll let you answer that one. Way less, yes, to cost.

**Miss Monique Taylor:** Thank you. Go ahead, Rosario.

**Mr. Rosario Marchese:** Mr. Chair?

**The Chair (Mr. Lorenzo Berardinetti):** There's still another eight minutes. Go ahead, Mr. Marchese.

**Mr. Rosario Marchese:** I just have a quick statement and a question. I am a big believer in the public procurement model versus the public-private procurement threes that the Liberals and my Conservative friends are committed to, only because I think my interest is in protecting the public interest more than anything else. I think the public procurement model is a lot cheaper for taxpayers.

But we now have accepted the public-private threes as the way to go, and so we've invented this risk matrix that the experts are putting together as a way of justifying one over the other. They usually come up with the public-private threes as being the better way to go for the taxpayer. We don't think so; we don't believe it. But people are inventing these things, and they've got big accounting firms to justify it because they like it too and they make good money on the transaction cost and so on. I wanted to make that statement.

**1010**

When you say that Metrolinx is a state-owned institution, it is, but in this particular case, in my view, it did not use the risk matrix very well. They defended the P3s, the public-private procurement practices, but they didn't defend this very well here. I don't see it. When you say that you put your bid, 5.75%, and they put theirs at 5.5%, from what I hear you saying, that bid was just put forward but nobody really followed it up in a serious way. They just said, "Our bid is 5.5%." But the real cost—as the Auditor General said, it's the most expensive system in the world, and the government and the previous minister, who's now the Premier, bought into it. I don't think they used a good risk matrix model.

I'm asking you, do you think they used a good risk matrix model for that bid?

**Mr. Emechete Onuoha:** Well, if you take an evidence-based approach to the model that was offered, to your point, we only make commitments, such as our 5.75% commitment as a percentage of revenues, after very diligent risk adjustment, particularly when we're absorbing 100% of the operating costs and 100% of the

front-end capital expenditure. As you can imagine, our investors and our board of directors would necessitate on large projects of this nature a very stringent risk analysis. But if we take an evidence-based approach, subsequent to anteing up that particular 5.25% undertaking, this pre-dates the failure of the system in Ottawa. It also pre-dates the litany of change orders that are very well captured by the Auditor General, which, to your point, Mr. Marchese, suggests that the risk analysis associated with vendor management and with operating execution and indeed even with prototype deployment may have been off significantly.

**Mr. Rosario Marchese:** Indeed there were, I think, 331 change orders, some of which, of course, were initiated by Metrolinx, but many others were changes made by Accenture of their own doing, and they didn't penalize them. They didn't go after them for the cost. In fact, the taxpayer ended up paying for that, which is unbelievably absurd.

The fare card system—you did one for Gatineau, correct?

**Mr. Sanford Weinberg:** Yes.

**Mr. Rosario Marchese:** How big is that system in Gatineau, again?

**Mr. Sanford Weinberg:** It's a small one because Gatineau is not a big system. I think that they maybe have 200 buses. Since 1997 the card-based system has been in operation there.

**Mr. Emechete Onuoha:** It is integrated with the OC Transpo system across the—

**Mr. Rosario Marchese:** That's what I was going to ask you, because the buses from Gatineau's system link up to the OC, right?

**Mr. Emechete Onuoha:** Right.

**Mr. Sanford Weinberg:** Yes, they transfer over.

**Mr. Rosario Marchese:** And that's working well, I'm assuming.

**Mr. Sanford Weinberg:** That has worked well between the two agencies historically, and that's why OC Transpo wanted to expand the project that has been in place since 1997 with STO. But as I mentioned, Ottawa was persuaded to go with Presto for funding purposes and that's when STO came to us. We modified their readers, the smart card reader that goes on the bus, to be able to read Presto, and we actually installed those past Presto's OC certification in March 2012, prior to the original deployment in OC Transpo, which was July 2012.

**Mr. Rosario Marchese:** I may have forgotten, but are you offering this service anywhere else in Canada?

**Mr. Sanford Weinberg:** Montreal has the card reader system now. They are beginning the phases to look at open payment, but it's not on the books right now.

**Mr. Rosario Marchese:** Thanks very much, Mr. Chair. I don't have any more questions.

**The Chair (Mr. Lorenzo Berardinetti):** You have about two minutes left.

**Mr. Rosario Marchese:** Thank you.

**The Chair (Mr. Lorenzo Berardinetti):** We'll go to the Liberal Party then for 10 minutes. Ms. Hunter?

**Ms. Mitzie Hunter:** Just in terms of your system, is it operating anywhere in North America?

**Mr. Sanford Weinberg:** Is it operating?

**Ms. Mitzie Hunter:** Yes. Are you collecting fares?

**Mr. Sanford Weinberg:** The original deployment and the original pilot, the New York-New Jersey Transit trial, was in operation and collected fares for 27,000 registered users and transferred the business rules from three different agencies. You were able to use your Visa card to move between the three agencies.

New York, because of procurement rules, shut that down. They didn't want that to be operational while they were going through the procurement. New Jersey Transit, however, kept their component operational. So you can ride about 100-and-some-odd commuter buses that New Jersey runs using open payment. In fact, they even introduced the ability to use Google Wallet, with electronic NFC technology on it. So that's operational there.

The major one would obviously be Philadelphia, which is right now in its early testing phases. The equipment is out there. You could tap, but we have limited people using that technology now.

**Ms. Mitzie Hunter:** Have you won the contract for New York?

**Mr. Sanford Weinberg:** No, not yet. Unless you want to tell me, no.

New York has started a unique procurement process because they're New York, but they're doing it in pieces. They're buying parts and pieces and then they're going to be one big integrator. They call it a thin integration model. So they're buying different pieces. We are following it. When the actual major one comes out, we certainly would be a contender.

**Ms. Mitzie Hunter:** Can you talk a little bit about what's happening in Denver? Is that on time?

**Mr. Sanford Weinberg:** Denver is a traditional smart card system. We have deployed it. It's operational. There were some delays in some of that deployment, but that's a card-based system that's not open. It is functional now. It's working. It's taking the EcoPass, which was the original deployment that was scheduled. They've now asked us to expand it to some more items. We're in the process of expanding it to accept other passes. It's functioning, yes.

**Ms. Mitzie Hunter:** Just for my colleague opposite, I just want to correct the—it's 5.25%, not 5.5%, for the Presto system, so it's actually less than the five and a third that was on the Xerox side.

I just also want to say that—

**Mr. Rosario Marchese:** It's \$700 million. It's the most costly system in the world.

**Ms. Mitzie Hunter:** Just a question to Xerox: Would you agree that customer convenience is a priority for fare systems and that regional integration of a transit system ought to be seamless?

**Mr. Sanford Weinberg:** Sure.

**Mr. Emechete Onuoha:** Absolutely, and particularly this is one of the reasons why the open-fare system is one that represents the best practice worldwide insofar as

eliminating a singularly situated captive stored-value card and embracing fare media that are already pre-distributed takes a large degree of risk and a great degree of customer hassle out of the experience, which is again one of the reasons why the notion of having a singularly situated focused stored-value card is deemed to be suboptimal in the modern context.

We wholeheartedly agree that customer convenience and efficiency at the customer interface is a top priority. Furthermore, we agree that integrated or seamless interaction within systems is also a priority, which is one of the reasons why many of the offerings and systems that we're implicated in—for example, the Montreal transit system—is such that we are capable of managing multiple agency requirements and fare rules within one particular system. That seamlessness and portability, particularly media-agnostic usage from the customer perspective, is critical and informs the logic of the architecture.

**Ms. Mitzie Hunter:** Okay. Another one for the record: My understanding is that Presto has over 400,000 users. So it's actually an active pay card system today: 25,000 per month utilize that system. and it has integrated 10 transit systems across Ontario so far. While Presto is evolving to its next stage, it is currently in use, including in the TTC system right now at a couple of stations—at 14 stations.

1020

**Mr. Emechete Onuoha:** Agreed. There's absolutely no debate in that regard. The Presto system exists and is in use. I think the question that has been raised is whether it's effective and good value for money for taxpayers. I believe that's the critical issue—and whether the risks have been sufficiently reduced in terms of the deployment of the technology to justify some of the significant costs that have been flagged by, amongst others, the Auditor General. But we wholeheartedly acknowledge that the system is in play.

**Mr. Sanford Weinberg:** To look at that, those are good numbers certainly in play. I think you might want to look at—it's one thing to quote 400,000 cards in circulation, but you might want to take a look at how many transactions per card, and how many cards are actually being used. Even in the latest article from Ottawa, they were commenting that only about 60% of the cards are—they've given away, not charged, which isn't their model, but they gave away 190,000 cards, and only 60% have been used. I would think an interesting thing for you to look at is, how many are actually being repetitively used?

Also, to talk about convenience, yes, those 10 agencies do accept Presto, but they're not being used for all the rest of their transit needs. It's just for those transactions.

**Ms. Mitzie Hunter:** My understanding from Metro-linx is that 25,000 users per month—that's the growth. And 91% of Presto users would recommend this technology to other riders in terms of their customer satisfaction. So it seems like the demand is growing—the seamless integration that Presto offers to the GTHA, which was one of the key goals, to make it convenient and

seamless, and using technology that can evolve and adopt to the needs of our customers.

**Mr. Rosario Marchese:** Is that a question, Mitzie?

**Ms. Mitzie Hunter:** I'm just, really, confirming that.

**Mr. Sanford Weinberg:** To respond back, I think you'll find, if you'd ask those same customers, do they like Presto, do they like the card—I think you're right. They like the convenience. They like what that technology does bring. If you asked those same customers, would they like not to carry a separate card but to use a card in their current pocket to do the transaction, to ride, I think you'll find that the response would be even higher.

I could provide you with a study that MasterCard provided. Of course, that's their business, but MasterCard provided a study that would show that the demand for single-use cards, which is their business model, certainly would indicate that that's really where the public wants to go.

I would also tell you, the younger rider, which is who you're really building the system for—they want to use their phone. They want that convenience. They want that technology.

**Mr. Emechete Onuoha:** And, Ms. Hunter, I might add, if I may, my colleague and I and Xerox, we're not here necessarily to bury Presto. In fact, the dialogue that we've had with the province and the voluntary advice we've given to Metrolinx has really been about, how do you make Presto work if this is the public transit fare collection model for the province of Ontario?

Our concern has been delivering world-class technology that ensures that the public transit fare collection policy of this province is actually resilient. What we question is whether or not the technology currently applied is actually going to deliver that public policy value. Again, our offer of dialogue and our continued willingness to collaborate with the government of

Ontario is predicated on delivering a public transit fare collection system that the people of Ontario deserve and that is cost-effective, risk-adjusted, convenient and also integrated by region.

**The Chair (Mr. Lorenzo Berardinetti):** I'm going to have to cut you off there. Sorry. We're at 10:24. That completes our session.

Mr. Klees wants one more question, but I'm going to require unanimous consent for his question. Is everyone okay with that? One question? Because the bells are going to start ringing in a minute.

*Interjections.*

**Mr. Frank Klees:** Can I just say this: I think that, at the end of the day, what is very, very important here is, Ms. Hunter has thrown out the two different rates—5.25% versus 5.75%. So my question is this: If, in fact, ACS/Xerox is over by \$1 million in terms of its actual cost of delivery, who eats the difference? Does Xerox eat that? Yes or no?

**Mr. Sanford Weinberg:** Yes.

**Mr. Emechete Onuoha:** Yes, absolutely. Xerox will eat that.

**Mr. Frank Klees:** And if Presto is over, let's face it, it's the taxpayer who's going to eat the difference. We on this side have no confidence that Metrolinx and Presto will be able to hold to their price—

**Mr. Kevin Daniel Flynn:** The unanimous consent was for a question, Mr. Chair, not a speech.

**Mr. Sanford Weinberg:** Just a correction: Our number, actually, was 5.35%. I might have misspoken. It's 5.35%.

**The Chair (Mr. Lorenzo Berardinetti):** All right. The bells are ringing. The meeting is now adjourned. Thank you very much for your presentation today.

*The committee adjourned at 1025.*



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