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Chair

Mr. David Sweet

Standing Committee on Industry, Science and Technology

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● (1530)

[*English*]

The Chair (Mr. David Sweet (Ancaster—Dundas—Flamborough—Westdale, CPC)): Good afternoon, ladies and gentlemen.

[*Translation*]

Good afternoon everyone.

[*English*]

Welcome to the ninth meeting of the parliamentary Standing Committee on Industry, Science and Technology. We're dealing with e-commerce and electronic payments.

We have four witnesses before us today.

Before I introduce the witnesses, I'll do a bit of committee business ever so briefly.

I need a motion from the floor for our budget for this study. Right now we're going to budget $8,450 for it. There's no guarantee that we will actually have to spend that much, but we need to make sure that we budget this amount in order to deal with expenditures for witnesses.

Could I have a member make a motion in that regard?

Thank you, Mr. Braid.

Seconded by Mr. Thibeault.

All in favour?

(Motion agreed to)

The Chair: Thank you very much.

Now I will introduce the witnesses. We have from the Canadian Wireless Telecommunications Association, Bernard Lord, the president and chief executive officer; from KPMG, we have Ken Cochrane, a partner in advisory management consulting; from IBM, we have Chris Paterson, director of government programs; and from Microsoft Canada Inc., we have John Weigelt, the national technology officer.

Gentlemen, we'll give you six minutes for your opening comments and then we'll go to a regular rotation of questions. I'll follow the order that's before us in our orders of the day, so we'll begin with Mr. Lord.

Mr. Bernard Lord (President and Chief Executive Officer, Canadian Wireless Telecommunications Association): Thank you, Mr. Chair.

[*Translation*]

I also wish to thank the members of Parliament who are here today.

[*English*]

I thank all the MPs for enabling us to be here today and I'm looking forward to answering your questions.

I want to start with a few facts and talk about all the good stuff that is happening in wireless, here in Canada, and how that leads to e-commerce. In Canada, we have wireless coverage for 99% of the population. About 97% of the population is covered by 3G or faster. We have more of the fastest networks in Canada than any other country in the world.

[*Translation*]

We have seen that, in various areas, Canada is progressing very well compared with other countries.

[*English*]

There are more wireless connections in Canada than wired connections. Canada is a world leader when it comes to wireless tablet use, and tablet purchases are expected to grow by 100% in 2012.

Canadians are among the world's fastest adopters of smart phones. We expect 100% penetration by 2014, which means that electronic communication in Canada equals mobile communication, and that electronic commerce equals mobile commerce.

The overall contribution of wireless to the Canadian economy is over $41 billion. This is according to an Ovum study that was done this year, based on 2009 numbers. There are over 261,000 people employed in Canada as a result of the wireless industry.

Massive investments have been made by the wireless sector in recent years—over $10.8 billion since 2008—even though we've been in a severe recession.

What does this mean?

There's significant growth in the wireless sector. A smart phone will consume 24 times the bandwidth of a traditional-feature phone. A tablet or laptop will consume 100 to 500 times more. So we have more users than ever before—more smart phones, more bandwidth.

Some of our networks are growing at 5%—not 5% a year, but 5% a week. One of our networks in Canada has the largest concentration of smart phones of any network in the world. All that is to say that Canadians are using this technology. They want to use this technology—for talk, text, culture, and commerce.

Who is using mobile commerce to reach Canadian consumers? The answer is, basically everyone in Canada.

What are Canadian consumers doing with mobile commerce? Companies such as EnStream are at the forefront of the smart phone payment systems, using leading-edge, near-field communications technology to turn smart phones into mobile wallets. The Google Wallet is expected in Canada in 2012. More than 80% of Canadian industry players feel that mobile wallets will be mainstream in this country within the next four years.

I hope my colleague from KPMG will confirm that.

Voices: Oh, oh!

Mr. Bernard Lord: We're quoting your study.

● (1535)

Mr. Ken Cochrane (Partner, Advisory Management Consulting, KPMG Canada): Yes, for telco industry, that's correct.

Mr. Bernard Lord: Since 2009 the Mobile Giving Foundation in Canada has raised more than $1.2 million, mostly through five- and ten-dollar donations for 120 registered charities, via text-to-donate campaigns.

These facts are just to say that mobile commerce is going to be mainstream. In Canada, for e-commerce to function, it will have to ride on mobile networks. Canadian industry and Canadian consumers are leaders in mobile commerce. We feel that Canada and Canadian governments at all levels could do more to keep up: governments should be a model user, governments should reduce red tape. To maintain Canada's leadership position, the wireless industry requires policies that support and encourage future investments in networks, greater predictability in long-term planning, and timely access to antenna sites to sustain the growing networks.

Those were my comments, Mr. Chair. I look forward to your questions.

The Chair: Thank you very much, Mr. Lord.

We'll now give KPMG an opportunity to actually confirm that.

Mr. Cochrane, for six minutes.

Mr. Ken Cochrane: Thank you, Mr. Chair, and committee members, for asking KPMG to come here today and share some of our insights with you.

Prior to the meeting I did distribute in both languages our 2011 report for Canada on mobile payments. I believe members should have that report as well.

The survey that we did was global in nature. We had approximately 1,000 executives from around the world, representing financial services, telecommunications, technology, and retail industry organizations, provide us with their insights on the barriers and opportunities to moving forward with mobile payments. So it's quite an extensive study. I'll briefly share with you the four different types of mobile commerce components that we were talking about.

One is M-banking. M is mobile, so it's about M-everything. M-banking provides you with direct access to a subscriber's bank services on a mobile device.

M-ticketing, which many people will likely be aware of, is where you actually purchase, let's say, airline tickets, and a boarding pass arrives on your mobile device and you can scan it in to gain access to a flight.

M-commerce really is about payment over the Internet. Unlike the banking side, it actually uses service providers like PayPal and Google Checkout, which have your banking information and will complete the transactions for you.

There's a new type of capability that is emerging that we call M-wallet, which is really a chip embedded in your mobile device that will have near-field communications capability. In other words, when it's close to a retail device in a store, it can actually communicate and share that payment information. The M-wallet, however, can also contain a lot of information in addition to banking information. You could have a range of credit cards, debit card information, and possibly driver's licence and other information on the mobile wallet. So there are some very interesting developments beginning to occur in that space.

What we heard from executives around the world is that they believe that mainstream adoption is somewhere between two and four years away. In the Canadian context we're hearing that. It's actually our position that it will be sooner than that; we believe that we'll see mainstream adoption within two years. Looking at our report and seeing the level of activity in this country right now in this space, we believe that it will occur just that much faster. We think we're really at a tipping point now.

When you look at our global study, you'll see that Asia is definitely leading in the adoption of mobile commerce, followed by Europe. While Canada is not leading, we're following the same pattern, wherein there are cards out there today like debit cards and credit cards that have near-field capability that you can touch and tap. We have seen one of the banks, the Bank of Montreal, put a sticker on the back of a mobile phone that lets you touch and tap and do a credit card-type transaction. Now we're beginning to see those chips actually embedded inside of mobile devices. We're moving down that trail as well.

We have some examples in the report that are actually quite interesting. For example, in Malaysia we see Maxis FastTap, where Maxis works together with a bank and a cell phone company, Nokia, and a terminal company that actually does the reading of the transaction at the retailer to actually complete the transaction. There's a full virtual capability in place in Malaysia.

We're seeing something a little different too. We're seeing what we call carrier billing. The example we use in the report is in Kenya, and we're seeing it emerging in Afghanistan as well. A company called M-PESA, a telecommunications company, is basically enabling the subscriber of the telephone to do banking transactions with his or her phone. This is without a bank account; this is using the telecommunication carrier's account. So you can roll up your payments basically through the telephone system and pay the telephone company directly. They have over 13 million subscribers currently in Kenya and are basically the dominant bank, in effect, from a retail perspective.

You can see how the world can change very rapidly with different entrants in the markets.

When we asked executives about the drivers behind this market—what's going to cause people to go over the edge and actually use these products and services—the primary items they focused on were on convenience of adoption. If it's easy to use, people will actually adopt it.

● (1540)

What is interesting is that this result is a little different, or somewhat contrary to an earlier study that we did, in which consumers said that security and privacy were the big issues for them. So here we're seeing global executives who are likely a little more comfortable with technology and who've had a little more time with it saying yes, but at this point we think we can solve those issues. It's all about convenience. If it's easy and fast to use, then people will begin to use these capabilities and services.

The other thing that we look at is the overall value chain. Mobile payments are in fact changing the value chain and so they are, in many ways, disruptive to the way things are today. If you look at the current value chain in the industry, in the credit card and the payment industry, we have very specific players today. We have the merchants; we have the credit card providers; we have the credit card companies; and we have the banks that actually play a role by issuing credit or handling the transaction. With mobile payments, we now see some new entrants, in particular the telecommunications companies, as well as technology companies, with all of these devices. So there are lots of changes afoot.

When you start to look at that, you have to say that we need to be well aware of those changes and determine how those players can play in the space and make the space work effectively.

There are lots of positive things emerging now, and about to emerge, in the Canadian context. As we stop and look at this overall, we are finding that there are really three ways to move into this space. One is through collaboration, and I use the Malaysian example, or Maxis FastTap, and the group of companies that have worked very closely together to produce a solution. There's the service provider model, such as M-PESA in Kenya, which is one implementation. And then we have joint ventures, such as the one that Rogers and Visa are now looking at in Canada.

I think one of the challenges here is that many complexities could arise if different approaches and different implementations come out of this. I think it's very important that we watch carefully and make sure we don't end up with a smart phone for every credit card that we own. We don't want as many smart phones in our pockets as we have cards today. So the whole concept of working together is key.

We come back with three recommendations.

First, develop a standards framework to make sure that this kind of commerce will flow very smoothly in this country and with other global players, which is very important overall.

Second, really focus on policy. Given that we have these new entrants—the technology companies, the telcos—it's very important that we enable innovation and not stifle it with tight rules and tight regulations that won't allow those players to play. So there is a balance between these two things.

Third, we need really solid education for businesses, consumers, and citizens in Canada to ensure they understand what they're doing when they're using these types of capabilities, as well as to really drive adoption, because we think, at the end of the day—

● (1545)

The Chair: Thank you, Mr. Cochrane. I gave you an extra minute there, but I had to draw it up.

We're now on to Mr. Paterson for six minutes, please.

Mr. Chris Paterson (Director, Government Programs, IBM Canada): Thank you, Mr. Chair, and members of the committee.

On behalf of my colleagues at IBM Canada, we are pleased to have the opportunity to provide input on your consideration of the e-commerce marketplace in Canada. With a view to being brief, there are really three key points that I want to put forward today—and I'm sure we could follow up on them in answering questions.

The first is that our understanding of electronic commerce needs to evolve beyond the notion of transactions, given the sheer transformation of the Internet and the means by which businesses, consumers, and government interact over it. Indeed, at IBM we increasingly talk about and see an Internet of things, in which anything—any device, physical or natural; system; or ecosystem—can communicate with another and create the basis for a new economic or public policy strategy.

The second point is that this transformation is spawning the evolution of what we believe is smarter commerce, rather than electronic commerce, the former broadly defined as the capacity to translate immense flows of data into intelligence, and intelligence into new economic value.

The third, and here I am getting to the public policy level, is that Canada's comparative advantage in the digital economy, we think, will be contingent upon the ability of our businesses and governments to create value and advantage out of superior intelligence and insight.

Jumping ahead just a bit, Mr. Chair, we would suggest that our thinking on electronic commerce and the government's consideration of it should really give way to the idea of a smarter commerce agenda. At the core of this agenda is the intelligent enterprise. While these enterprises are doing many things, we find that there are two core building blocks they are leveraging in becoming intelligent enterprises. The first is their ability to leverage an increasing array of software and related technologies to turn instinct and intuition into insight and intelligence. IBM refers to these tools—and frankly we're not alone—and technologies as analytics, or the use of information to find patterns, create scenarios, make predictions, and to identify new possibilities.

The second is the adoption of emerging services-oriented models for accessing necessary technology, be it networking, infrastructure storage, applications, and business processes. The most prominent and compelling model to emerge is cloud computing. In very simple terms, cloud computing is a new model for accessing and delivering information technology and business services. Its relevance to policy is its potential to reduce the opportunity cost of investing in technology. Cloud computing helps to reduce costs, complexity, and management resources—several of the conventional barriers to IT adoption and use by SMEs.

These options are increasingly available to businesses in Canada to help them become intelligent enterprises and leaders in smarter commerce. Government can take several positive steps to facilitate and advance this agenda. I highlight some of the following.

One, we believe that public support to stimulate business investment in information and communications technologies needs to be flexible and focused on innovation outcomes as opposed to specific technology inputs. Support should facilitate innovative and, most likely, services-oriented approaches to developing an increased capacity for business intelligence.

Two, government should develop an intelligent infrastructure road map for Canada that is premised on a comprehensive vision for digital advantage—instrumented, interconnected, and intelligent. Investments in digital infrastructure create multiplier effects as good as or better than investments in bricks and mortar. Thus, investments in smarter energy grids, intelligent transportation systems, and smarter health systems, among others, are investments in innovation platforms for SMEs to build on.

Three, a research, innovation, and collaboration strategy should be pursued that will position Canada as a global leader in the development and export of intelligent technologies and solutions. We have a significant opportunity in this space, and with the right partnership we can export the technology that governments and industries around the world will need to make their businesses and infrastructure intelligent and innovative.

Four, just as the foundation for smarter commerce is an intelligent enterprise, the foundation for a smarter and more competitive Canada could be considered intelligent government. Without minimizing the scope of the challenge, clearly there are opportunities for federal and provincial governments to consider smarter spending and deficit reductions strategies.

● (1550)

As I wrap up, Mr. Chair, I would like to highlight IBM Canada's shared interest and sense of common cause in this discussion. IBM began operations in Canada in 1917. We have been in Canada for almost all of the 100 years that we have been a company. Our roots in Canada are as deep as our investment is extensive. Our continued ability to attract, retain, and grow our substantial R and D investment in Canada is directly linked to our combined capacity for innovation.

This discussion is an integral part of that broader effort. On behalf of my colleagues, we appreciate the opportunity to comment.

The Chair: Thank you very much, Mr. Paterson.

Mr. Weigelt, for six minutes, please.

Mr. John Weigelt (National Technology Officer, Microsoft Canada Co.): Good afternoon, everyone.

It is indeed a pleasure to be here to represent Microsoft Canada on this important topic.

As the national technology officer, I have the opportunity to work with businesses, government, and education and health care leaders, in looking three to five years ahead to seize the opportunities of technology and to avoid unintended consequences by making sure that privacy, security, accessibility, and availability are built into businesses and their technologies.

Today I'd like to talk to you about reimagining e-commerce, in the broadest sense of the word, to look across the economy more broadly than the digital economy and perhaps reimagine our economy digitally. Take a look at the transformation that's happening on a global scale. We heard from the other representatives that a tremendous transformation is happening. How do we get ahead of this transformation, using some of that advantage we have from the economic crisis to take the lead and seize the opportunity? Finally, I'll talk to you about adjacent innovation, harnessing the skills for those things we know best, and projecting Canadian know-how and expertise through the use of the web around the world.

I looked through the rich set of questions that inform this conversation and this exploration, and it is indeed an important place to look. When I look at recent studies, they continue to assert that Canadian businesses underutilize the potential of Internet communication and lag behind innovative Internet retailing and its respective logistics. If we think about that for a moment, we quite clearly see that it's beyond the technology side; we see the logistics side and the expansion into other parts of our economy.

When I talk with entrepreneurs and innovators in Canada, I often discuss the consultations on the digital economy that Industry Canada led last year. These were world-leading consultations, government 3.0 types of activities, where we consulted online and voted for the best ideas and whatnot. Outside a small community of technology people, normal business operators in Canada weren't aware of this technology. It was the digital economy consultation.

You might ask yourself why it's important. Let's consider for a moment the contract drilling operations in northern Alberta. We think of the rigs, we think of the trucks, and we think of the people wrestling with this big equipment. But did you know a server at that site not only handles the exploration aspects but all the aspects of HR and administration also?

Let's come a little closer to home. When we look at a construction site here in Ottawa, we see those white trailers outside the site. What's in those white trailers? It's more than a coffee machine. It's more than a water machine and a lunch table. A server is actually there so that the plumbers and electricians can review electronic blueprints.

It's clear that technology is having a transformative effect across all of our sectors. It's perhaps important that we look beyond consultations on the digital economy and look at consultations that reimagine our economy digitally. Broadening the conversation in this manner will help to engage stakeholders across the Canadian economy and extend the opportunities not only to all businesses but also to skills development, as we look at educating our young people for the next wave of innovation.

This is more than wordplay, as it recognizes that technologies play a key role in supporting innovation across Canadian industry. Opportunities project Canadian expertise worldwide. I say this because Canada is what's called a “spiky region”: people want to live here, they want to locate here. How do we take that innovation and those skill sets and project them around the world?

As my colleague from IBM noted, we're seeing a technology transformation equal to that of the Internet, where businesses can now obtain computing resources, commonly known as the cloud. Not only does cloud computing promise to provide almost limitless capacity and world-wide reach on demand, but it also frees organizations from the obligation of paying for infrastructure, so they can only pay for what they need and focus the rest of the money on innovation.

To provide these services at a low cost, there have to be world-wide economies of scale to be able to access these services wherever and whenever they're required. When you look at the supply-and-demand side of things, it's important for Canadian businesses wanting to get into this field to have the largest addressable audience.

Canadian businesses, unfortunately, are reluctant to move to the cloud. Recent Angus Reid polls suggest that only 47% of Canadian businesses are using cloud services, compared to 70% in the U.S. and 68% in the UK. We actually hear stories of emerging marketplaces where entrepreneurs are wholly using cloud computing instead of investing in IT infrastructure. They're putting all their money into that innovation. When we look at the delivery of cloud services, it allows entrepreneurs and innovators to focus on innovations without having that sunk cost.

We unfortunately see many misperceptions on the use of cloud computing. In January 2010, the trilateral committee on transborder data flows reported that organizations were losing out on opportunities because they weren't sure of the policy and legislative frameworks that applied to them and were nervous and reluctant to do so.

From a services perspective, people often look to Canada and say that Canada is a cold place with lots of green energy and lots of space. Why aren't data centres located there?

● (1555)

You'll recall that I mentioned this is an economies of scale business reaching out to the broadest population possible. If you cannot serve the world from your data centres, you're not going to be able to make those economies of scale. So we're still seeing legislative frameworks on a worldwide basis hindering that adoption and opportunity to project that Canadian know-how around the world.

Since the e-commerce economy is predicated on scale, we really need to look at policy frameworks that support the scale of that business.

It was mentioned earlier in regard to the “Internet of things” that the cloud represents one transformational trend. The other trend is that wide variety of connected devices. We see health-related devices—including blood glucose meters, peak flow meters, weight scales—changing the way we deliver wellness to Canadians, changing that equation and that conversation around how we deliver health care.

When we look at the connected home, at smart meters and smart appliances, not only can we manage our energy use but we can also figure out what groceries we need to pick up.

When we look at the smart vehicle and the connected vehicle projects that are under way in smart corridors in the province, there is the opportunity to avoid accidents through the use of these smart technologies and the cloud, and also to streamline logistics flows as we bring in goods from overseas and ship them across North America.

So there are great opportunities there as we look at how these different devices are connected and we look to different telecommunications channels. White spaces and the analog television networks promise to invent a whole new marketplace for how these devices communicate and share information with one another.

History demonstrates that adjacent innovation is perhaps the way that inventors come up with new ideas, by picking something they have expertise in and then linking it with another smart idea. So as we look to reimagine Canada's economy digitally, we should look to all segments of Canadian excellence and to extend them by harnessing the potential of technology.

With that, I thank you.

The Chair: Thank you very much, Mr. Weigelt.

Now we'll go on to our first round of questioning of seven minutes, and Mr. Lake.

Mr. Mike Lake (Edmonton—Mill Woods—Beaumont, CPC): I could use my seven minutes just listening to you talk more about the opportunities that exist.

Mr. Cochrane, you didn't quite have a chance to finish your opening comments. Was there anything else you wanted to say?

Mr. Ken Cochrane: No. I prepared a rather elaborate statement because of the nature of the studies, so I rushed through it. But what I really wanted to do was to focus on the end, on the three areas that we think require real attention.

As the other speakers have indicated, at the end of the day, it's really important that the whole economy works smoothly—and payments are a key element in the movement of money and the movement of information. The movement of money and commerce is a key element, so I think that environment has to be very, very smoothly established with a lot of collaboration among parties.

Mr. Mike Lake: Okay.

There are so many different places to go, based on the opening statements. But I'm actually going to stick with you, Mr. Cochrane.

You talked about Canada not leading the way. It sounds like we're following closely, taking up technology that other countries have led the way on. And here, I'm curious about two things.

First, why are we not leading? Is it simply due to the size of our markets, for example, or population size? Maybe it's easier to lead in other areas with bigger populations.

And the second part of the question is this. For those countries that are on the leading edge, have the security issues they have faced been resolved before we get a chance to adopt the technology? In other words, is there an advantage to being just behind?

Mr. Ken Cochrane: I think those are both very good questions.

If you look back at Canada in the last ten years, we've made major investments in infrastructure, major investments in Internet accessibility. As my co-speaker Bernard Lord indicated, I believe over 90% of Canadians have access to high-speed Internet capabilities.

If you compare us with other countries, what you'll see is that Canada has a very solid infrastructure that enables people to do e-commerce from their homes and workplaces very effectively. So mobile devices were not used as much for commerce in the last number of years.

I know I can go home and do banking at home with great ease, with very little difficulty. With the chip card technology and the debit card technology that has been in place in Canada for a long time, I've been able to swipe a card and make those payments very easily in Canada for a long time. We have a very sound, stable infrastructure that enables this.

But this is now disruptive and here we are with our existing infrastructure. This creates a disruption. So we're watching other countries very quickly move into mobile technology, while Canadians are still quite comfortable that they have the capabilities they need at their fingertips. That's why, when you ask executives about Canadians and what will cause them to switch, they say that it has to be really easy—even easier than using the debit card of today.

So we're in a different space from what we see in Europe, and certainly different from Asia, from that perspective.

● (1600)

Mr. Mike Lake: I'm going to move to John for a second. Several witnesses talked about the cloud, but you talked about the reluctance of Canadians to move to the cloud. Personally, I can relate to that. From a personal standpoint, I think about all of my family photos, videos, and things like that, which take up a ton of space on my computer. It would be easier to have those things stored on the cloud somewhere, but I don't know where that is, so I'm reluctant to put my home videos out, who knows where?

It seems to me, though, that those same hesitations and similar ones would, from business perspective, lead to great opportunity for Canada because of the issue of trust. I would think that Canada would have a huge opportunity in terms of our brand worldwide and people's willingness to have faith in our ability to secure that information, if we were to have those data centres here.

Am I correct in assuming that might be the case? If so, would you elaborate a little bit on what we need to do to build that market?

Mr. John Weigelt: Sure.

I think on the first question about the consumer idea of confidence, we've heard from the businesses and from consumers around they need to have reassurance about the cloud services. Their service provider needs to be there to make sure that the pictures are there, that the other content is there, when they require them and that these will be safe for them.

It's a little paradoxical when you start to look across different services and you ask people, “Are you concerned about your privacy?” and they say “Yes.” “Are you concerned about location?”and they say “Yes”. “Do you know the location of your service providers?”, and they say, “No”. So how do you balance that type of conversation with individuals and determine how much risk they're actually accepting, the risk that is there, and the safeguards they are putting in place? It is a question of safeguards, because there are no legal prohibitions going across the community.

I think when we start to look at the business side, there are impediments around access to information and data that exist within cyberspace. So when we look at anti-terrorism legislation in Canada, and in the United States, and even in the U.K., for that matter, they all provide the ability to access data that are of interest to national security. So as you look to establish one of these capabilities within your region, people from outside the region will be concerned about the local governments being able to access their data using some of these lawful access procedures.

I have had conversations with other nations looking to establish themselves as world leaders around the provision of cloud services, and they look very closely at local legislation. They've asked, “How did your privacy legislation attract jobs or businesses to your region?” Unfortunately, there are no statistics kept on how PIPEDA or the Privacy Act have brought industry and businesses to the region.

Mr. Mike Lake: Great. I may come back to that a little later.

Mr. Paterson, I have a quick comment. Your four recommendations for government steps sounded very similar to the recommendations in the Jenkins panel report. I don't know if you've had a chance to read it, but if you have, do you have any comments?

Mr. Chris Paterson: I have had a chance to read it, probably about as much as everybody else has. It's a fairly lengthy report. My observation at this point is that it's a really good start. I think it recognizes that much more needs to be done to stimulate business investment and innovation. I think it acknowledged that, as a public policy lever, direct investment as opposed to incentives, at the very least, is what other nations are adopting.

Given that there are some questions as to our capacity for innovation, perhaps there's something to be looked at there. It focuses very much on the question of small- and medium-size enterprises. We're very supportive of that. As one of Canada's largest and, frankly, most research-intensive companies, we'll continue to have discussions about how very large-scale R and D investments can be brought to Canada.

I'm intrigued by the comments on the National Research Council. Maybe—

● (1605)

The Chair: Thank you, Mr. Paterson. I'm sorry, but I have to be fair to all the members and we have to abide by the clock.

I'll now go to Mr. Thibeault for seven minutes.

Mr. Glenn Thibeault (Sudbury, NDP): Thank you, Mr. Chair.

I echo the comments by my colleague, Mr. Lake. It's great having the four of you today to talk about such an important issue.

Each of you talked about the importance of technology. We're looking at how technology is making our lives easier. When you look at the systems that are going into place to make our lives easier, they are actually getting more and more complex. I have heard the comment or statement a couple of times that we are close to a tipping point. We are very close to that tipping point where e-commerce and mobile payments are going to tip, and they're going to go right across the country. Whatever gets Canadians using mobile payments and e-commerce, it's exciting. But at the same time we're also going to have to look at those systems. What are we doing to ensure that we're protecting consumers? What are we doing to ensure that we're protecting small- and medium-size businesses, especially when it comes to some of the regulations that we have heard about?

More specifically, what I would like to talk about are the interchange fees for credit cards. We did a study in the industry committee in the last Parliament that discussed how small- and medium-size businesses are being impacted by interchange fees. Now, if we see smart phones and Google Wallet, for example, utilizing MasterCard and Visa.... We all know there is an issue right now with financial literacy, and if we put digital literacy on top of financial literacy.... Some of us are still trying to figure out how to get the clock from flashing on the VCR. We're trying to bring people forward.

I make light of that, but maybe I will start with you, Mr. Cochrane, on that question. Are we doing enough in relation to e-commerce and mobile payments to ensure there are protections out there for consumers? I will just leave it at that and we'll go from there.

Mr. Ken Cochrane: I would draw your attention to the work being done by the payments task force launched by the Minister of Finance. I am not intimately aware of it, but I understand that many similar recommendations to what we have talked about will be embodied in that group. There is a broad set of potential policy issues here.

In many ways, if you look at some of the protections today.... In the physical world, you can lose something very easily; you can lose a wallet. I know that in the electronic world, if I take this device here and I have to properly protect it, I may have some of the same contents in the wallet, but I can have this shut off. I can call Rogers and ask them to disable it right away. So in some sense, the technology can give us potentially greater protection than what we have today in the physical sense.

As you note, when we start talking about mobile payments, we are not only capturing the payment but there's also the fact that while these payments were done in the past via credit card or cash, they can now be captured at the retailer. A cash transaction would be done there by a mobile device, so you do have more information about the behaviour of an individual. So it's important that we have regulations. And I think we likely have them, but it's clear to all, including consumers—which is why we talk about education—that they understand that when they tap their mobile device to complete a $30, $40, or $50 transaction, the retailer will be familiar with the types of transactions they are conducting at their location.

Some considerations need to be put in place. A big part of it is education.

● (1610)

Mr. Glenn Thibeault: Great.

Mr. Lord, correct me if I'm wrong, but I believe it was you who stated we would see Google Wallet arrive here in Canada in 2012 and that within four years it would become mainstream. That was something you were quoting from the KPMG study.

Would you be able to comment on the infrastructure of our current wireless mobile infrastructure? Is it advanced enough to provide for point-of-sale payment via cell phones or smart phones ? Should we be monitoring that right now?

Mr. Bernard Lord: We have a very robust infrastructure in Canada, but we also have an amazing demand for more. Canadians are adopting technology as never before. I mentioned in my presentation that some of our networks are growing at 5% per week. That's the demand. One of our networks in Canada has the highest penetration of smart phones of any network in the world. Canadians are leading the way in tablet adoption.

So the appetite for technology, in mobile technology, in wireless technology, is certainly there. And Canadians, from what we can project over the next few years, will want more. So the pressure we will see on our networks will be because of the fact that we're going to run out of spectrum. We need more spectrum. If there's one thing we would like government officials to do, it would be to put out a multi-year plan to release spectrum for this industry and all the uses we want. Whether it's for business, culture, personal, payments, or whatever, we need the spectrum to satisfy the demand.

The other thing that's critical for all these networks to work, as my colleagues or fellow presenters are talking about, is cloud computing. What Canadians will want is cloud computing on the go, not just cloud computing from their desks or homes. To be able to satisfy that demand, not only do we need spectrum but we also need antenna sites. And that means making sure that we can set up antennas to build the networks to satisfy that demand.

Mr. Glenn Thibeault: It sounds as though our capabilities are there. We need to tweak them a little bit.

But in relation to mobile payments then, are there guidelines for your member agencies to use and for the deployment of mobile payments? Are you working on that?

Mr. Bernard Lord: There are standards. There are different standards for different technologies. As mentioned today, when we talk about mobile payment, there's more than one technology. We see different partnerships being established between some of our members and other businesses in the community to enable Canadians to use the technologies, whether mobile wallets, mobile payments, or e-commerce. When you talk about the e-commerce you can do from your desktop at home, Canadians want to be able to do that on their mobile phones. The technology is there. But when you're talking about near-field communications, that's being put in place now.

I just want to come back to one comment you made. You said that some of us are still trying to figure out how to program the clock on our VCR. There's a whole generation out there trying to figure out what a VCR is. When we talk about the adoption rate, that's what we're seeing. We've done some studies. There's a big difference between those who are 15 to 35 and those who are 35 and older. Those who are 15 to 35 want to be able to do everything from this device. And those who are 35 and older, as with many other things in life, tend to be a little more cautious. They're used to using the card with the magnetic strip on it. They've used it for years, and it has worked well. They trust it. Young people are willing to embrace new technology. So there is not only a digital gap but also a bit of a generational gap. We've seen it in some of the research we've done.

The Chair: Thank you very much, Mr. Lord. I'll have to call that a gap at the moment right now.

We'll go on to Mr. McColeman, for seven minutes.

Mr. Phil McColeman (Brant, CPC): Thank you, Mr. Chair.

My thanks, as well, to the witnesses for being here.

I want to ask Mr. Paterson my first question. It really revolves around your comments about developing intelligence for economic advantage. I'd like you to describe that a bit more.

You mentioned a smarter commerce agenda for governments to achieve. Conceptually I'm thinking about it as something far beyond e-commerce. Maybe, as governments consider policy and regulation, it goes far beyond what we can conceive of right now as the future in terms of what we're doing. Instead of talking just about electronic payments and what the next practical things are, I'll ask where this takes us. Am I correct in thinking that this, conceptually, is much larger than the topic we've set out to study?

● (1615)

Mr. Chris Paterson: I think so. I think there are a few key points. The first is that IBM, with the Economist Intelligence Unit, has undertaken studies since 2000 that rank countries internationally on the state of e-readiness. The last study was completed in 2010 and a major finding is that all 70 countries surveyed in one way, shape, or form have reached a certain state of e-readiness for the most part.

There is a broad consensus that there is a need to invest significantly in the core connectivity infrastructure, that there's a need to encourage businesses and consumers to use it, and that there's a need to create a supportive policy environment. There's a gap, but it's narrowing, and it continues to narrow.

So the point is how one defines advantage where what was previously considered advantage has become somewhat commodified. Of course, I'm referring to everything I just mentioned.

The issue at hand is that, as a result, combined with just the sheer force of technology decreasing costs, anything and everything can be connected. There are 30 billion radio frequency ID tags in the world today connecting cars to manufacturers, rivers to conservation authorities, and so on. How do we deal with the amount of data that is being produced daily at a rate eight times more than the size of the holdings in the U.S. Library of Congress?

In regard to the comment about mobile payments, it's really important to note that mobility is not just about commerce in itself, but about the exchange of information between a product and a consumer, a consumer and other consumers to get ideas about what they should buy. Four in ten people use a mobile device when in a store to look at whether or not they should buy, and while they're doing that they're communicating over Facebook, or whatever medium, to make the decision.

So one in three business operators feels they're operating with blind spots; 83% of CEOs think their priority is analytics to get a better handle on the information that is swirling around their business, their product, their market, and their supply chain.

So it really comes down to the following. There's a significant amount of connectivity. There's a permissive environment. The issue at hand is how to gain advantage, and it is going to be gained by superior insights about product, process, and market, and gaining that insight becomes the basis of the intelligent enterprise.

Mr. Phil McColeman: Both to you and John, in practical terms in Canada we've tried to create a low tax environment for investments in research and development. Your companies make huge investments in those. Does that assist your companies?

As an offshoot to that comment, do your companies work with our post-secondary institutions and the innovators at that level to try to take those synergies into the commercialization of whatever is happening in their labs?

Mr. Chris Paterson: The answer to your first question about a low tax environment is that, of course, it does help. But I think John would agree that the comparative advantage of R and D is really defined by the above-the-line costs, the costs of acquiring, developing, and retaining very highly skilled people. Canada is doing well in that regard, but we could do better. We find ourselves in a constant state of competition in that regard.

So then how do we leverage the advantages that are present? Here you asked about university relationships. Without a doubt, IBM's research model—which we're proud to say is one of the largest in the world, for a reason—with respect to some of the issues we're talking about here today is changing. It's almost transforming itself from being in the lab to going outside the lab, from a laboratory to a co-laboratory, and it's basically focusing the research around the problem. In other words, what we are trying to solve? And it's going to where the world offers the brightest and the best to help solve that problem.

Again, the gap is narrowing incredibly. On any number of these subjects, we have R and D operations in Brazil, China, as well as here. We can compete, but the gap is narrowing and it's a challenge.

I'll leave it at that.

● (1620)

The Chair: Thank you, Mr. Paterson. That is all the time for that rotation.

Now on to Mr. Regan.

Hon. Geoff Regan (Halifax West, Lib.): Thank you, Mr. Chairman.

Mr. Weigelt, although I'm dying to ask what happens to the sales of Microsoft Office when people move to the cloud, I'm not going to, because I don't have time today.

You talked about legislative frameworks hindering the development of e-commerce and the need for policy frameworks that support scale. Mr. Lord gave us a list of policy requirements for the industry that support and encourage future investments, greater predictably, longer-term planning for spectrum access and allocation, and timely access to antenna sites.

Mr. Weigelt, and Mr. Lord, what are the legal barriers hindering development of e-commerce in Canada? What other issues are holding Canada back? What should government do about these things?

Mr. John Weigelt: It's a question that I encounter each and every day when I talk with entrepreneurs and innovators across Canada, that is, how can they harness some of the capabilities of technology? Unfortunately, there's a lot of confusion out there. Canadian businesses, 80% of which are small-to medium-size enterprises, are focused on innovation. Technology is one of the things they need to do to survive, but they don't really have core competency in that area. They want to have their basic services up and running, but that's not their primary business. They want it to be simple and they don't want to go through a legal quagmire. As soon as there's a question raised about compliance, about legislation, they'll typically throw in the towel and go with the tried and true.

There is privacy legislation in British Columbia, the Freedom of Information and Protection of Privacy Act, suggesting that government-held information should not leave Canada unless one has consent from the affected individuals. It's not an outright prohibition, but there have to be certain safeguards in place if you're handling government information. Surprisingly enough, a number of organizations in British Columbia and across Canada believe that this legislation applies to them. So that's the first challenge, just being clear and concise about what applies to regular private sector businesses. There are appropriate safeguards that you can apply.

Then you enter into what I call the Hollywood script scenarios. People will imagine all these nasty things that could happen. These scenarios are almost the equivalent of a Hollywood mystery novel, almost suggesting that people will fly in with helicopters and seize individuals. It's a matter of getting over the misperceptions about possible choices in where the data are hosted, looking at what's local, and determining what safeguards need to be in place to deal with the information. In many cases, when you work with enterprise-class service providers, security and privacy are well handled, but there's confusion in the marketplace that is causing people to pause.

In addition, there are individual organizations that, out of fear or uncertainty, would suggest that information must remain within the region. They fear not being able to capitalize on the economies of scale to drive their costs down and, ultimately, to be able to charge small business more for their services.

Mr. Bernard Lord: There are several examples. I'll focus on one, the anti-spam legislation. Depending on the regulations that are adopted, the anti-spam legislation could handcuff businesses and hamper mobile commerce in Canada. I think everyone would agree that we're all against anti-spam—

● (1625)

Hon. Geoff Regan: Against spam, you mean.

Mr. Bernard Lord: Yes, thank you. We are all against spam. But how we define it and how we regulate it could have unintended impacts.

Legislators can adopt things that sound good, but the consequences may be different. Some businesses communicate directly with consumers through text messages of 140 characters. You can put a lot of things in 140 characters, but you can't put it all.

That's just one of our areas of concern. We're not the only ones. There are a number of groups around the country that are concerned about the regulations that will be adopted to support the anti-spam legislation. We're hopeful that Industry Canada, through its consultations, will realize that it needs to take a hard look at how it proceeds with these regulations.

That's just one example.

Hon. Geoff Regan: Thank you.

Perhaps, as I ask other questions of you, Mr. Cochrane and Mr. Paterson, you may also have answers on some of the legal barriers that you see.

First, Mr. Paterson, we saw in Canada a very quick adoption of debit cards, much quicker and much wider than in the U.S. It's interesting to ask, are we already behind in e-commerce adoption in terms of...? Are we going to be quicker than the U.S. in adopting things like M-wallet? These are interesting questions.

Also, one of the phrases you used was that e-commerce translated data into intelligence. I think that for a lot of consumers, that's exactly the worry that they have. For instance, I forget who mentioned it, but on your smart phone, along with information about your bank account or credit card accounts, you'll also have other information, such as your licence. Here I mentioned several accounts, as you're probably going to have more than one account, because I can't imagine the technology not being invented to provide for several different credit cards or bank accounts being on the same phone.

Obviously we're aware of, and have even seen this year, major companies being hacked into and the private information of Canadians being accessed and stolen. How can Canadians be assured and comfortable with this, so that we can see e-commerce moving forward? How can we see people being more comfortable about the security of these systems?

Mr. Chris Paterson: Well, first and foremost, as far as our company is concerned, half of our research that is spent is dedicated to the general area of software and these very questions.

Secondly, I think there probably are some differences at the table, but for the most part, I think there's an understanding that Canada's privacy regime— the federal government's—is progressive and is focused on the protection of the consumer. There's no expectation that companies would do anything other than adhere to that.

The current amendments before the House are focusing on such issues as breaches, etc., and—

The Chair: I'm sorry to interrupt, but that's all the time we have for now. I can maybe give you some time afterwards, for you to try to finish that comment.

That's the end of the first round. We'll move from our seven-minute questions to our round of five-minute questions.

Mr. Richardson, please.

Mr. Lee Richardson (Calgary Centre, CPC): Thank you, Chairman.

Thank you to all for coming. This is fascinating. It moves so quickly.

I have a general question, I guess, in terms of how governments, like consumers, like businesses, including yours, adapt to change and the rapidly moving progress in this sector.

I think KPMG mentioned the notion of innovators versus followers. I think as consumers we look at, and this government is trying to propose, legislation or laws to govern the practices or taxation policies. Where do you jump in? Where do you take advantage of the current situation as opposed to waiting to see where it ends up? It doesn't appear as though it's ever going to end. Where do we come in, and how do we...?

I guess I'm just looking for some thoughts on this. Where do we draw the line? We're dealing with questions today that weren't even envisioned a couple of years ago in terms of regulating industry, protecting consumers, and also driving tax policies—things that I'm sure Mr. Regan was just about to get into, such as downloading music as opposed to taxing CDs.

Where do governments enter into this, and where do we draw the line? Do we set policy that says you guys are going to have to make future progress within these parameters, or do we wait until we see what you come up with and then act after the fact?

● (1630)

Mr. Bernard Lord: I'd be willing to volunteer an answer to that, because I think those are valuable questions. For policy-makers, those are the most difficult questions to answer.

The only advice I could give on this specifically is that as legislators, you cannot try to legislate this through a rear-view mirror. Because it's changing so quickly, you can't, as you're driving down this change highway, look in the rear-view mirror to see what you just went through and say, “Oh, let's regulate that”. The difficulty is that it's always hard to predict what will be happening next. And at the speed at which governments work generally, in terms of adopting laws and having debate in a free and democratic society, it takes time. That time can be a problem, and it can be an impediment to innovation.

So I think a general rule is to not create more hurdles than needed and to try to maintain that balance where we can make sure that we generate the environment for people to innovate and create wealth, while protecting consumers and Canadians' privacy. When you set up too many roadblocks to try to protect too many things, I think that's when we really risk falling behind.

Currently we're not falling behind. There are places where we're ahead, and places where we may be second. We're not a country that's falling behind by any means, but we have to make sure that we don't put up roadblocks to put ourselves in a situation where we are falling behind.

Demographics also play a major role in everything in terms of public policy. The fact that we have an aging demographic will show—and we'll see it for a while yet, not only in health care but also in other sectors—that we may be slower to adopt new technologies just because we're an older population. But when you look at our younger population, how quickly they adopt technology, you see that they're adopting it as fast or faster than anyone around world. When we look at Canada as a whole, we have to be careful that we don't lump everybody in. There are segments of the Canadian population that are adopting technology as fast or faster than anyone else in the world.

Mr. Ken Cochrane: I also think it's an excellent question, one that legislators don't just worry about but we all worry about, in terms of how many rules and how much of a framework we want in order to operate.

I look at it this way, that at the end of the day, in this space that we're talking about—e-business, e-commerce, the digital economy—you have some really fundamental things. Privacy is one. Security of information is another, as is identity, in terms of knowing who it is you're interacting with, having a sense of confidence that it is the person or the service you believe you're interacting with, that it's accurate. There are many things we can do to apply good practice to ensure that we have good identity in place—people are registered, we know who they are, we have the right devices to assure us they are who they say they are.

At the end of the day, what we have to do is to have enough collaboration among us all to have a set of rules we can all work with that will generate trust. I think it's the trust model that will allow electronic commerce. Forget the digital payments and mobile payments. In the whole movement of information with a high level of confidence, it's that trust model that's core—to me anyway. I think it's the core of what many of us have said.

The Chair: Thank you, Mr. Cochrane.

We'll have to end on trust, which is a good place to end.

[*Translation*]

We will now move on to Ms. LeBlanc.

You have five minutes.

Ms. Hélène LeBlanc (LaSalle—Émard, NDP): I thank you for your presentations; they are greatly appreciated.

A report on research and development was recently published by a group of experts. They recommend that the tax credit for what we commonly call SR&ED be reformed in order to apply exclusively to labour costs. I believe you have already discussed this issue, Mr. Paterson. Other guests might have something to add.

Should the government be doing more to create programs targeted at sustaining the integration of new information and communication technologies for SMEs? You mentioned that a high proportion of consumers are adopting these new technologies in their purchases, but that small and medium-sized businesses seem to be having difficulty in keeping the pace in order to benefit from this large market.

Might the government, within its assistance programs for small and medium businesses, be able to do something to urge theses businesses to adopt these new technologies?

● (1635)

[*English*]

Mr. Chris Paterson: Thank you for that good question. It is one that I think other jurisdictions have asked. I think the answer to your question is yes, and from a public policy perspective there seems to be a recognition that there is, for lack of a better way of putting it, a market failure of sorts. Businesses are not investing in and using technology as much as is deemed necessary for stimulating innovation and productivity.

My recollection is that the Information Technology Association of Canada undertook a study on this question a couple of years back. My recollection is that to the extent that other jurisdictions were using incentives, or some form of public support for this, it was done in a way that enabled flexibility. In other words, it basically gave the company the ability to define its strategy and to put in the technology, business processes, software, etc., that would help it accomplish its innovation objectives.

Whether it's a matter of vouchers, whether it's a matter of making support available through IRAP, whether it's available through the Business Development Bank of Canada, any of those means could be effective. I think the primary issue at hand is flexibility, a focus on a company's innovation outcomes and strategy, and making sure that the support is flexible enough to help the company achieve those outcomes, which may involve hardware, software, or services.

Mr. John Weigelt: I'd like to echo that point about having a broad opportunity to invest where it makes sense for innovation in your business.

But my sense is that there also has to be increased awareness in the broader community. Again, I express my disappointment that so many Canadian businesses were unaware of the consultation on the digital economy, something that is as important as this in projecting Canadian know-how and knowledge around the world.

One thing we all need to be aware of is the sustainability of activities that surround incentives. Perhaps an example helps in this regard. One could imagine that a research facility gets the world's largest MRI machine. All of a sudden there's a whole bunch of people intrigued about locating to that region to work on the MRI machine. Time will pass and that MRI machine will no longer be the world's number one. It might be number two, number three, number four, number five. What happens when that machine breaks? Where do your researchers go? How have you built up that support structure around it so that you can sustain that innovation in the region and be able to continue? Perhaps because the technology has changed so very, very rapidly, that technology has now become obsolete, and you've invested in a horse but you don't have a full stable. So you look to do those investments across the Canadian marketplace, look at bringing up that whole idea of centres of excellence or those communities.

We see them emerging throughout the Canadian economy, not only in Vancouver and Montreal with electronic content and the digital economy, but also in the Toronto and Hamilton regions, with e-health and the innovations that are happening there; or the pharmaceutical innovation that's happening in the Montreal region; or look at the carbon management that's happening in the prairie region. The University of Manitoba, the University of Saskatchewan, and the University of Regina are doing some fantastic work around carbon sequestering. How do we enable those communities with digital technology to allow them to project that know-how around the world?

[*Translation*]

Ms. Hélène LeBlanc: Thank you very much. I—

[*English*]

The Chair: You have three seconds, Madame.

[*Translation*]

Ms. Hélène LeBlanc: In that case, thank you very much.

Some members: Oh, oh!

[*English*]

The Chair: That'll be the end of that round.

Now we'll go to Mrs. Gallant for five minutes.

Mrs. Cheryl Gallant (Renfrew—Nipissing—Pembroke, CPC): Thank you, Mr. Chairman, and thank you to our witnesses.

I'd like you to tell me how government, with all its redundancies, could save Canadian taxpayers money.

For example, we have the CRA, which has relatively current data—the name, address, SIN, etc.—on everyone. Then we have a person who applies to EI and goes to a kiosk, or maybe even to a human being, and inputs all of the information that the government already has. Then years later, that same person, who is a veteran, goes to apply for benefits, and yet another government employee must input that same information that the government already has somewhere.

Is there a way to utilize this cloud technology in such a way that the information that has to stay segregated from department to department can stay segregated, but that the information that we have to re-input time after time can be shared across the board?

● (1640)

Mr. John Weigelt: The cloud is transformative not only in its approach to delivering services but also in its ability to reimagine how services are delivered. That means that as software developers, you can now locate the information in the appropriate location, where it can be safeguarded accordingly for privacy or security, or even from a compliance perspective. So you can serve up the fancy graphics, perhaps, from a public cloud service, because everyone is comfortable with having that video showing Parliament Hill, with the flag waving, and with being served from a server that is closest to the constituent. They want to rely upon the departmental safeguards that are there to control those services.

Certainly, we've seen some great initiatives being started in the federal government around consolidating services and shared services, with a monumental approach to bringing together departments. There are 44 departments and agencies looking at sharing services such as e-mail, data centres, and having that consistent approach to network services. We see those starts happening as departments and agencies look at breaking down those cylinders of excellence, looking at where there are common services across the board and being able to deliver the services that Canadians expect.

It's interesting that when you start to look at some of those scenarios you mentioned, there are things that Canadians can take advantage of when you look across different business lines. For example, it seems deceivingly easy to have one common name and address. When you think of someone who's moving, changing jobs, or relocating, you have a forwarding address—or perhaps a snowbird is off to another region.

Not all programs or services accommodate all of those different idiosyncrasies. The trick is to combine those services where it makes sense, and then add that value on a per service basis.

Mr. Chris Paterson: Similarly, just as John spoke to the value of the cloud and the consolidation of various operations and so on, I want to speak briefly about the theme I launched, which is the better use of information. Government is awash in information. It has to be used correctly, appropriately, and so on. To the extent that there can be, there are opportunities for tremendous savings. The State of New York, for example, in the last five years has saved close to a billion dollars just by understanding the full extent to which tax returns should, or should not, go out and in what amount, and by reducing duplication and so on. Examples abound of the ability to use information more effectively and to save money as a result.

The Chair: Mr. Lord has a comment.

Mr. Bernard Lord: Thank you.

I just want to add that the simple answer to your question is obviously yes. There are many ways to do that. There are also some specific programs that are redundant. When it comes to the wireless carriers in Canada, there is a 2% requirement, in terms of investments in R and D, when it's obvious that the carriers invest far more than 2%. We are now the only country in the world that has kept this requirement. It forces carriers to fill out government documents and have government officials make sure there is 2% being invested, when we know far more than 2% is being invested.

That program could be scrapped. The investments would continue, and the government would save money. This is one very specific example of redundancy that could be eliminated tomorrow. No one would know, except it would save the taxpayers money.

The Chair: Mr. Cochrane, you have 30 seconds left.

Mr. Ken Cochrane: This is certainly a subject near and dear to my heart.

The way I would respond to it is, as Mr. Weigelt was saying, with consolidation of a lot of the technologies to enable the cloud and to have government, through Shared Services Canada, state that it is going to do this, as it recently announced. That is really critical, because once you put things together, you begin to see the opportunities to leverage things and to remove redundancies.

The same thing would be true on the side of service to Canadians. For many years, we have been a leader in providing service to Canadians as a government overall. The challenge, really, is that the organizations still operate separately and provide great services in and of themselves, but not collectively. There is a tremendous opportunity, if we put it together, to break those barriers down.

● (1645)

The Chair: Thank you, Mr. Cochrane.

We will now go to Mr. Masse for five minutes.

Mr. Brian Masse (Windsor West, NDP): Thank you, Mr. Chair.

Mr. Lord, we've heard testimony at this committee that we're about two years behind the United States in terms of the spectrum auction. I want your comments regarding that, along with anyone else's on the panel.

How do we catch up? Can we catch up? What consequences do we face if we don't catch up? What will this mean for businesses that will have deficient provision of these services compared to that of their competitors south of the border?

Mr. Bernard Lord: Spectrum is essential for future e-commerce. Everyone has spoken today about how commerce is becoming mobile commerce, and for that you need the spectrum. The networks will not function without more spectrum, and will not function without more sites, so we need both.

It is true that the U.S. has already auctioned off some bandwidth, which will be probably also be auctioned off in Canada next year. The industry is happy that's happening over the next 12 to 18 months. But beyond that, the most critical thing that the government could do in terms of spectrum over the next decade would be to lay out a plan of when spectrum will be released and how it will be released.

Our association's members are entirely in favour of auctions. They have no problem with auctions. But it's knowing when these will happen, because these networks require billion-dollar investments for renewal, for upkeep, and for growth. Being able to plan that ahead of time, more than six months or twelve months ahead of time, would be very helpful. And it's about knowing when the spectrum will be released Then they can plan the networks accordingly. So that would be critical.

Yes, the U.S. released some spectrum before Canada. Okay, it's going to be auctioned off most likely next year in Canada. But beyond that we don't know when the next wave of spectrum will be released.

The FCC in the U.S. has identified, as an objective, finding an extra 400 to 500 megahertz to be released through auctions. We think Canada will have to do the same. So let's lay out a plan.

Mr. Brian Masse: Does anyone else want to comment?

Mr. John Weigelt: I would agree that spectrum is a valuable commodity, and I would ask that as you look at that valuable commodity that's out there to realize that there are some advantages to having a set-aside for perhaps a small amount of unlicensed area, as well to allow for innovation. Certainly from a public safety perspective, having the availability for public safety communications interoperability is an important aspect of this as we look at critical infrastructure resilience. But I'd also look at some of the innovation that's happening around white spaces and think of those next generation radios, the intelligent radios, that are able to use spectrum in a very smart way and reach out to different communities. And I'd look to opportunities to explore those regions for that next wave of innovation here in Canada.

Mr. Brian Masse: Thank you.

I'm going to give the rest of my time to Mr. Thibeault.

The Chair: You have two minutes.

Mr. Glenn Thibeault: Perfect. Thank you.

I'm just going to jump back.

Mr. Weigelt, e-commerce and the mobile payments, as we were talking about, are adapting so quickly and involve such a great technology that we're all very excited about seeing the innovation that's coming forward. So, for example, I purchased a product at a local electronics shop and had my receipt e-mailed to me. And for those of us who ever had what I call a Costanza wallet—the big wallets full of receipts—I will say that it was great, because I could actually set it up on my mobile phone and put it in a folder, and now I don't lose my receipts. I don't have to go through the Costanza wallet to find them. I can actually just bring them up.

The fear I have, as a consumer, is what will happen if I lose this thing because I accidently don't put it in my inside pocket, or whatever. I know that Microsoft has technology that can maybe protect this.

Maybe you can talk about what would happen if I did lose my phone. What would be in place to ensure that it's recovered?

Hon. Geoff Regan: It's the cloud.

The Chair: Try to do that in one minute.

Mr. John Weigelt: I'm glad you asked the question. A little over 10 years ago, Bill Gates said that confidence and trust in the electronic would be key to going forward with the digital economy. And he set the wheels in motion for a trustworthy computing initiative, putting in security by design, privacy by design, and accessibility by design into all of the tools and product sets. So the technology exists to be able to safeguard those critical values and the data that you have.

We've also tried to make it easier for people to appreciate more fundamentally what safeguards and controls they should be asking for from their mobile device providers or any device providers, and how to turn them on. Certainly you'll remember some of those funny commercials where you had that individual asking you at every step of the way. We've learned from that and we've made it more approachable so that people can have that better understanding. We've been working with the Privacy Commissioner so that you have a better understanding of privacy notices. We're making sure they're accessible and friendly. So we're working across those broad sectors and broad regions.

Sometimes there are emerging companies that perhaps haven't placed that amount of emphasis on the security and privacy of the tool sets. And the challenge is having consumers demand that from their providers.

● (1650)

The Chair: Thank you very much, Mr. Weigelt.

Now we'll move on to Mr. Carmichael for five minutes.

Mr. John Carmichael (Don Valley West, CPC): Thank you, Mr. Chair, and thank you to our witnesses today.

I'd like to go back to an area that Mr. Cochrane addressed, and that is training for businesses and consumers.

As a group we've heard a number of different bits of information relative to cloud computing and all of the new technologies.

As a parent, and now a grandparent, I look at my own children in the 35-and-under category that one of you referred to earlier—perhaps it was Mr. Weigelt—and how their adaptation to technology is far higher than those of us who are over 35. I'm not sure anybody is going to wait for me to catch up, but I look at my grandchildren today who are coming along at an exponentially faster pace, because they're playing with technologies and all kinds of toys and games on iPads that are phenomenally adapted from where we were five years ago. It's moving so quickly.

For those of us who come from a business background, when you talk about cloud computing and the opportunity there, the cloud, to me, seems like a financially efficient opportunity to do a better job with my business, in terms of both the cost of investment and cost of operations, etc. But I've still got a problem with having the right talent pool there to manage it.

Last week we had testimony from a number of different institutions at different committees who talked about the work being done at the post-secondary level today.

I wonder if you could talk briefly about what it's going to take to give business—small business, or SMEs—the talent pool to help them advance their businesses and stay current but continue to advance in everything they're trying to do. What do we need to get the next generation trained to help us do a better job with SMEs across this country?

Mr. John Weigelt: I'll start with that.

Actually, when you mentioned that the elder cohort is perhaps not as comfortable with technology, we actually see both ends of the spectrum. We see the young people, and then we see people who perhaps we wouldn't believe would be comfortable with technology. If you can imagine the different specialists that people need to go to or them working with their grandchildren, etc., we also do see that the elderly community are great adopters of technology.

As we look at the skill set that's required, we see it starting at the youngest age—and almost starting with the computing ethics. Think of the pre-schoolers who are learning how to share their toys with one another while having conversations around cyber-bullying and not posting pictures or derogatory comments on the web, and things like that. So we start to build that digital literacy early and then we build that through the different stages along the way. We see Canadian education facilities innovating in this regard.

The Pembina Trails school board in Manitoba is using the cloud for online training. What they've got is an EduTube type of approach, where learners can pick a style of learning that fits them. So if they have very illustrative, demonstrative learning skills, then they can look at other lesson plans that go along with that. So it's about being comfortable with the technology to use that new training or new learning.

I think as you start to go through higher education, it's about having that understanding that digital literacy skills go across our sectors. When our electricians, our plumbers, our doctors, our lawyers are going through the school set, they have that training as they come along. Many of the younger community coming through are demanding that, and we need to be aware of that.

That helps you then build what I call adjacent innovation, as you start seeing the opportunity. Perhaps you're a carpenter, and it's seeing that you can now sell this to the world if you use these tools.

Mr. John Carmichael: Mr. Paterson.

Mr. Chris Paterson: Thank you.

I think everything Mr. Weigelt said is correct. The key points there are the experiential, hands-on and more applied problem-focused approaches to learning, if you will, and working around and developing a solution in response to a problem.

One only has to have a child in the school system to understand the opportunities for using and maybe introducing technology, not just for technology's sake but for the purpose of working more collaboratively and enabling parents to become more engaged in the system.

I think for some time now any number of organizations have been engaged in promoting youth science and technology awareness. We certainly are. We've had long-standing programs focused on young women and other youth. I'm sure Microsoft does as well. We're doing it in our own lanes.

How do we create a critical mass in that regard? I think there is a perfect role for government there in coordinating a critical mass.

● (1655)

The Chair: Thank you, Mr. Paterson. I'm sorry, but I'm trying to keep it as fair as I possibly can with the time and still get the essence of the answers in.

Now on to Mr. Harris for five minutes.

Mr. Dan Harris (Scarborough Southwest, NDP): Well, it's great to be a member of that under-35 group, and if I had 50 minutes to ask questions here, I still wouldn't get through them all.

Mr. Cochrane, you were talking earlier about new entrants in the area of mobile processing of funds. With respect to telecom and tech companies, of course they're getting into the financial side of things, and we certainly don't want cumbersome red tape. But where do you see the balance being in regulation to ensure high standards, as we have with our financial institutions, while not being cumbersome and preventing them from getting into the market?

Mr. Ken Cochrane: Thank you.

That's quite correct. As we look at the value chain, as you quite rightly identify, new people and new companies do come into the space and many of them are very innovative. Here I'm thinking of the telcos, of course, but also of the many product companies and technology companies. What's interesting is that they attack problems in a different way from the companies that were already there, so I think it's going to create a lot of interesting opportunities that we may not have anticipated.

At the same time, there's a need to make sure that the rule set is sound, so that we don't have cowboys but have people operating in a solid framework. That comes to the other point, which is making sure that we set standards. If we don't set standards, if people don't understand what these are, it's difficult for people to work within a frame.

Our point, really, is this. As we go into this new space with all of these new entrants—all of the different technology companies and others—it's important to have a standard framework they can work within, allowing them to deliver the innovation we all want, and hope for, and expect. At the same time, it's important that they stay within the boundaries to ensure there's a high sense of confidence in electronic business and electronic commerce. So standards are key.

Mr. Dan Harris: Great.

Much has been said about the cloud today, and with respect to bandwidth—and not only mobile bandwidth. Of course, this is absolutely critical for the future. As more and more technology and more and more information are held on centralized servers and cloud computing is being served up, they vastly increase the bandwidth requirements. Certainly today, some of the more intense operations for bandwidth revolve around gaming, for instance. We see here in Canada a wide-ranging difference in quality of service, depending on where you are and when things are being served up.

Perhaps for all of you, where do you see the government coming in and investing in that infrastructure to be able to increase the quality of service? I think that's certainly detrimental to businesses that are in cloud computing, where they don't have that confidence that everything is going to be there when they need it.

Mr. Lord was talking before about the huge demand for more. With respect to antennas, I worked in northern Alberta last year where, on one construction site, we went from a 5-megabyte connection to a 100-megabyte connection within a few months and it still didn't help in getting the antennas up. We nicknamed one of the towers the “Yeti” tower, because nobody had ever seen it and it took too long to get up.

Where do you see the government coming in and pushing for that infrastructure to increase bandwidth to meet those needs three, five, and ten years out?

Mr. Bernard Lord: I think the role of government has to be very limited. The industry is willing to make the investments, has made the investments, and will continue to make investments. If there is one role for government, it is for remote and under-served areas—and limited to that.

I would add that when the government decides to provide support, as it has in recent years, it should be technology neutral in its approach as well, because there's more than one way to deliver the service. I don't see it as the role of the government to pick winners or losers; its role is really to support the percent of the population that is hard to reach.

Keep in mind, in Canada today wireless networks cover 99% of the population and between 17% to 19% of the territory. There's 1% of the Canadian population that lives over 83% of our territory. Economically, it may be hard to reach all of those people with mobile service. You can reach them with wireless, but it would be a different type of technology. There are ways to bridge the gap, but we must keep in mind that sometimes asking the government to do it all may be worse than doing what is in the best interest of most. Keep in mind that, of the 99% of the population that are covered by wireless, 97% have access to 3G, which means broadband mobile today, right now. So when you think of that, it's really amazing what is being done now. We have more of the world's fastest networks in Canada than any other country today. A lot has been done already without government help.

We're always concerned that when the government tries to help, it actually tries to slow things down. There are things that could be done, for instance, to ensure that there are more investments. We currently have the highest licensing fees in the G-7. If you lower those fees, the money will be invested in networks. There are ways for the government to help but it's not always by spending more tax dollars.

● (1700)

The Chair: Thank you, Mr. Lord.

Now we'll move on to the final questioner for this round, Mr. Braid, for five minutes.

Mr. Peter Braid (Kitchener—Waterloo, CPC): Thank you very much, Mr. Chair.

Thank you to the witnesses for all the excellent contributions to our discussion that we've had from you this afternoon.

I'll start with a question to you, Mr. Lord, and this might be a good segue from exactly where you just left off.

In your opening comments, you spoke about the importance of government finding ways to reduce red tape. You've touched on a couple of examples. Are there any additional areas of red tape reduction that we should be considering, or specific examples you'd like to leave with us today?

Mr. Bernard Lord: In terms of red tape, the one that concerns us the most is the requirement on the licensee to invest 2% in R and D. We see that as a clear winner for the government right away. That is key. That is the most important red tape to us.

The other point is not to add any other red tape. Sometimes there's more regulation because someone feels they have to do something, and what can governments do? I've been in seats similar to yours, and I know how you can feel. There's pressure from people calling in and saying, “So what are we going to do?” Then we adopt a law and a regulation, and we end up slowing things down.

So our biggest concern with red tape is that we don't want any more. Don't set up any more obstacles. This is an area of the economy moving so quickly that, by trying to regulate too much of it, you'll end up slowing it down. If you slow it down, you will hurt consumers, you will hurt business, and you will move Canada backwards.

Mr. Peter Braid: Great. Thank you.

Could you bring us up to date on the transition from the 3G to the 4G networks?

Mr. Bernard Lord: Yes.

Some of the carriers in Canada have started deploying the 4G networks and are moving very quickly. The 3G and HSPA+ networks have been in place, and you will see more deployment of 4G technology across the country from more carriers, and there will be competition in 4G. You will see manufacturers of handsets offering 4G handsets as well.

This will help satisfy part of the demand, but, at the same time, it will create more demand. As consumers realize that 4G can do more mobile things faster than ever before, they'll want to do that. As you meet some of the existing demand, by doing so, and deploying these faster networks, you will actually create more demand, which means we'll need more spectrum and more antenna sites.

Mr. Peter Braid: Great, thank you.

Mr. Cochrane, with all due respect to IBM and Microsoft, who are also here, I want to ask you the following question. What do we have to do in Canada, from a policy and economic framework perspective, to create the next RIM?

● (1705)

Mr. Ken Cochrane: Gee, that's a very interesting question.

I guess the interesting thing is that we won't create the next RIM; the next RIM will evolve, I think. I could play off our whole idea of a digital economy and say, well, you know, the next RIM will emerge as a result of their understanding of using technology, being a global player, and working in the Canadian context, which is a very positive one.

If I just go back to the survey that Mr. Paterson alluded to earlier, which *The Economist* does, the one area that Canada scores extraordinarily well in is the business environment. So of all the six indicators of being a digital economy and being e-enabled, Canada is number three in the world in terms of being an environment where businesses would establish themselves. So maybe it's about a Canadian company becoming the next RIM, or some entrepreneur saying, “Let's go to Canada. Let's take our families and children and let's create a business there”. Canada sits in third place, I believe—maybe behind Singapore, and I forget who else. But I'd say we're pretty attractive.

Outside of infusing money into technology, I think that's probably the biggest thing we could do, that is, to create an environment where people want to be to build business.

Mr. Peter Braid: Thank you.

What is my remaining time?

The Chair: Thirty seconds.

Mr. Peter Braid: Mr. Paterson, tell us more about analytics, in 30 seconds.

Mr. Chris Paterson: Very quickly, it's about turning useless bits and bytes into new economic value, either through a new product or, frankly, through managing the enterprise in a way that gives a return on investment in one month's time of over 1,000%.

The Chair: Thank you, Mr. Paterson. That was very good, actually, in such a short period of time.

We're moving on to a third round now. We'll go to Mr. Richardson for five minutes.

Mr. Lee Richardson: Thank you.

I got halfway with my last question. I didn't have a chance to hear from Mr. Paterson and Mr. Weigelt, although in subsequent responses he reinforced where I was going, that it may simply be too big and moving too quickly for governments to be all over this and ahead of the game. And that's where I fall to my faith in the market system, simply because I think that....

You mentioned trust, Mr. Weigelt, and alluded to a quote from Bill Gates that you build trust into your products, as does IBM, I think. A lot more people vote through their pocketbooks for IBM and Microsoft than for any politician or lawmaker. If you don't retain that trust, you're toast. And I think that happens more quickly than it does to any political party.

I wanted to direct the question to Mr. Lord, simply because he's the representative of an association for this. Are you confident that competition or market is sufficient to ensure that trust and optimize integrity and the security of consumers?

Mr. Bernard Lord: I'm a big believer in markets as well. Companies know that consumers today are more responsive than ever before. They get more information than ever before, and they'll act quickly. If they feel they're not getting the trust level they deserve from their provider, they'll switch. And I think that is the most powerful force to ensure that businesses satisfy the needs of their customers. It is knowing that their customers can act quickly, and change. That competition exists in Canada and the information for the customer is there as well.

Mr. Lee Richardson: Thank you.

Did you want to comment, Mr. Paterson?

Mr. Chris Paterson: Fundamentally, I think your question is what is the role of government in encouraging a strong digital economy in Canada? That is the quintessential question for government.

I tried to outline a few key points in my opening remarks, but I will bring it down to one point. In terms of adopting a more liberal, progressive framework, the attention should, frankly, be on defining the standards and the outcomes. And I'm referring predominantly to issues around privacy and security. In other words, in terms of market frameworks, define the outcomes but do not define the technology.

The rate and pace of innovation is such that we'll be talking about the cloud today, and when we reassemble in two years' time, we might be talking about another platform or method. But the goal will be the same: how do we use technology to stimulate innovation and increase productivity? So I think that frameworks need to be very mindful of not defining the technology but defining the standards the government thinks Canadian individuals are entitled to.

● (1710)

Mr. John Weigelt: If I were to look at one big thing that could be done, I would recall here for you the Own the Podium effort at the Olympics and that broad, national goal. Certainly, the consultations on the digital economy expressed a goal of having a world-class digital economy moving forward. I would argue that we could go that step further and talk about having, perhaps, the most innovative economy around the world.

In looking across all aspects of innovation, I liked the Boston Consulting Group's definition of innovation. It's not only about new products but whole new marketplaces—or even more efficiencies.

I used the example earlier of carbon sequestering. What if we, as a Canadian community, imagined the Montreal Climate Exchange becoming the NASDAQ for managing that business, that whole new marketplace? Would that not support and foster some of the innovation, some of the research that's happening across the country? I know it's a sensitive issue with some regions, but it allows us a moment to imagine that whole new marketplace where Canada could strike first and then reach out and go more boldly, beyond where things are today.

Mr. Lee Richardson: Thank you.

Thank you, Mr. Chair.

The Chair: Thank you very much, Mr. Richardson.

Now on to Mr. Thibeault, who I think is going to cue it up and then share with his colleagues.

Mr. Glenn Thibeault: Sure. Thank you, Mr. Chair.

Very quickly to Mr. Lord, you were talking about the coverage being 99%, I think it was, except for remote and under-serviced areas.

I represent the riding of Sudbury, a great city. We have great service in the city. Go 20 minutes outside the city and you cannot get service. I'm meeting with constituents, businesses, who are saying they can't even access online banking because they have to use dial-up. And if anyone remembers what dial-up was like, it was like watching paint dry to see this thing come up. When you're part of that 1%, it's a huge issue. The government could come in, I believe, with broadband, but is there anything that companies—telecom, or whoever—are looking at doing to start addressing and helping that 1% in the remote and under-serviced areas?

Mr. Bernard Lord: It's happening now. The surface area that's being covered continues to expand.

That's why I said earlier that if there is one place government can step in, it's there. Governments have stepped in before for similar reasons. In the case of electricity, government stepped in to support remote and underserved areas, because economically it didn't work. If government decides that this is an area that's so important that everyone needs to be covered, then this is an area where government should step in. But it should step in in such a way that it remains neutral in terms of technology and doesn't step in the way of the rest of this that will happen on its own.

I'm certainly not advocating what took place with electricity when the government decided to nationalize electricity. I don't think that's the solution, and I want that on the record.

Mr. Glenn Thibeault: All right.

I'll hand off to Madame LeBlanc.

[*Translation*]

Ms. Hélène LeBlanc: I would like to pursue the discussion on the same subject. I believe that Canada has innovated tremendously because of the challenges it faces relative to its territory, its climate and its demography.

How can we continue to innovate in order to overcome the challenges we face in the digital world? Indeed, we must be able to serve everyone and to avoid having two classes of citizens: those living in urban areas and those living in rural regions, those who are younger and those who are older, etc.

[*English*]

Mr. John Weigelt: That's an interesting question.

I have the good fortune to be able to look at the worldwide environment with my colleagues in similar roles. It's interesting to see how some other nations have solved some of the tough challenges of reaching out to disadvantaged regions.

I point to an example in India, where they essentially used off-the-shelf Wi-Fi—those wireless access points with specialized antennas that cost $30 from Radio Shack—and were able to project the Wi-Fi signal 30 miles and were therefore able to support five eye clinics in order to do cataract surgery. There, in an inexpensive way, they were able to connect up a community using wireless across a broadly distributed region, with one connection to a central hub.

As we look towards that kind of disadvantaged region, are there some similarities here in Canada that we can look at and say there may be a school or a library or a hospital that is an anchor institution, and that we could broadcast from that facility to reach some in the community, perhaps reaching out the 20 or 30 kilometres for businesses in Sudbury? We could do so, looking not at a gold-plated solution but one that provides meaningful access, and does so inexpensively.

It has the follow-on advantage of being able then to project that experience of reaching out to a widely distributed community, when we look at serving regions like those in India or to build out the infrastructure in Africa as that continent emerges and requires that foundation—or even in China. So it's about leveraging the experience that we have in reaching the community and seizing business opportunities elsewhere in the world.

● (1715)

[*Translation*]

Mr. Bernard Lord: Allow me to say two things in answer to your question.

In Canada, there already exist solutions to those problems. Let us take, for example, New Brunswick. Indeed, 100% of New Brunswickers have access to high speed Internet. That is one example. Various technologies have been used to reach this objective.

One must however be careful. There are different technologies that exist and that can provide acceptable results, but that do not necessarily deliver the best results everywhere. Indeed, certain technologies give better results in areas where there is a higher concentration of people than elsewhere.

I would like to add another very important thing. We are talking about innovation, but it is not solely up to the government to innovate. Individuals everywhere must innovate. It is fine and dandy for the government to adopt all sorts of policies and programs and to spend all of the money at once, but if individuals fail to adopt innovation as simple second nature, there is nothing that the government will be able to do. It is therefore essential to encourage people to adopt the technology and to innovate. Innovation also means changing one's way of thinking.

The Chair: Thank you very much, Mr. Lord.

[*English*]

Now we go on to Madam Gallant for five minutes.

Mrs. Cheryl Gallant: Thank you, Mr. Chairman.

As Canadians become more dependent on their mobile phones for paying bills and doing transactions, they're also increasing their data use. There are different plans for data use, and people are often told they can do whatever they need to do and that these plans will cover it. But as they use their mobile phones more and more, they get a surprise bill of several hundred dollars for one month.

My question is, what measures are in place, for consumers who are using their devices, to know where they are, so to speak, in terms of data usage as they use their devices through the month for these different applications?

Mr. Bernard Lord: There are different mechanisms in place to enable consumers to know. First and foremost, consumers obviously need to know what plan they have, if they have a plan. Is it prepaid, post-paid, and how does it work? That's number one: the consumer needs to be informed, needs to have that information.

But there are different programs that you can access from your smart phone. You can look at your account and see, minute to minute, how much data you've consumed and where you are in your plan. Certain devices have apps that will do it for you, and there are providers that will send you notices to let you know you're getting close to your limit.

So there are different options. I will not say there's one option among all carriers; some see a competitive advantage in the way they interact with their clients to give them that information.

What's important is to make sure that consumers can get that information so they can make choices for themselves.

Mrs. Cheryl Gallant: How can consumers and businesses save money at a per-transaction level? By using a phone to make payments, for example, they are using air time, which has a cost; whereas in making a payment online using the Internet, their router cost is already covered by the subscription, and a paper copy of the transaction can be printed for reconciliation purposes.

On the part of business, the start-up costs for SMEs are very costly, the flat fees to accept electronic payments are very high, and unless all of their customers are agreeing to pay online at once, they're in the hole for several months.

So can you explain to me how both the consumer and the SME that wants to accept electronic payments can save on a per-transaction level?

● (1720)

Mr. Bernard Lord: Not all mobile payments will go through the wireless networks. What you described as the monthly fee part of your package at home for Internet use could be the same on your device, because the consumer has that option. The consumer has the option of buying different plans that will satisfy his or her needs. I think protecting the choice of consumers is what's essential to making markets work.

But some of the e-technology that's being envisaged and some that is being deployed now does not communicate through the broad wireless network. When you're using near-field communications between your device and the receptor, it's not going through the wireless network per se, so there is no additional fee in that sense.

There are different options for consumers, and consumers will want to use what works best for them. They may be willing to pay a fee, and in some cases they may not be. It depends on what they want. The merchants will respond to their consumers. That's why we see most merchants accepting credit cards, even though there is a fee to the merchant. There is a small percentage of merchants in Canada that will not, because they don't feel it's good for their business. But they have that choice.

I think protecting the choice of the consumer and protecting the choice of the merchant is what is essential to making markets work.

Mrs. Cheryl Gallant: Going back to the cloud technology, which is really more secure, cloud technology or a stationary server in one place that could be vulnerable to hacking?

And if a consumer is accessing a server or a cloud—for example, Google Cloud Connect, whereby you can have multi-access schedules as long as your connectivity and electricity are in place—how does the basic consumer know what kind of technology he or she is accessing when doing business?

The Chair: Cheryl, you're actually out of time.

Can you make that answer very brief?

Mr. John Weigelt: For the most part, the service providers will have, in their terms of service and their acceptable use policies, a description of how that service is provided and whether or not it's provided inside or outside of Canada.

I think it's important to note that trying to compare the security of a server and the cloud is very difficult. You might have a very secure server and an insecure cloud or vice versa, because, fundamentally, the technologies can all be secured or they may be left with the doors wide open.

The Chair: Thank you, Mr. Weigelt. I appreciate that. I know that the clock sometimes makes it difficult.

Now we move on to Mr. Regan for five minutes.

Hon. Geoff Regan: Thank you, Mr. Chairman.

Mr. Lord, the second point you make is that what the industry minister requires is greater predictability and longer-term planning for spectrum access and allocation.

Should there be set-asides? Should there be caps?

We're hearing about an auction or auctions for the 700 megahertz band and the 2500 megahertz band. Should those be separate or together?

Mr. Bernard Lord: As I'm sure you can appreciate, Mr. Regan, I represent a lot of members. Some of our members are for it and some are against it. We're for our members.

Voices: Oh, oh!

Mr. Bernard Lord: So we are in favour of options. But different members have different points of view on whether or not caps should be set aside, and I'll let them work that out with all of you. What's important overall and where there is agreement is that there is a need for more spectrum and a schedule to release the spectrum over time.

Hon. Geoff Regan: Does someone else on the panel have an answer to the questions I just asked?

You wouldn't touch it, would you? They are all clients of yours, right?

That reminds me, in 1970s, there was a fisheries minister in Nova Scotia. There was a dispute among fishermen, and the fishermen asked him who he supported. He answered that he supported the fish. Good answer.

Voices: Oh, oh!

Hon. Geoff Regan: Let me turn to a report from the Chamber of Commerce that says the government should undertake a comprehensive public awareness program to educate the private and not-for-profit sectors about their new obligations—this is under the Fighting Internet and Wireless Spam Act—and that organizations should be provided sufficient time to implement compliance programs. If spam is bad and we're against spam, then when should somebody be able to send an email to somebody who hasn't asked for that email? What are the circumstances in which a message that's seeking business should be able to be sent? Isn't that the question?

Who would like to answer that?

● (1725)

Mr. Chris Paterson: It should be as soon as reasonable consent is met.

Hon. Geoff Regan: What's that?

Mr. Chris Paterson: That is as defined by the Privacy Act.

Hon. Geoff Regan: Okay. That's a pretty careful answer. I heard earlier that there is dissatisfaction with the act. If the act isn't good enough and is creating new problems, where does it create the problem and how does that get solved in a way that protects the consumer?

Mr. John Weigelt: The difficulty that we as an organization are finding is with the interpretation of some of the timeframes, and understanding where that relationship was established, how we have defined that relationship, and whether or not we can go back and re-establish that relationship with someone we had thought we had established a relationship with in the first place. So going through all the language and the different interpretations makes it very challenging for us to look looking at our repository of customers with whom we feel we had a long-standing relationship, and to make those annotations so we explicitly identify that indeed we have had that contact and they have opted in.

Hon. Geoff Regan: That's interesting because, frankly, I would have thought that Microsoft would have fewer problems with this issue than almost anybody else, because so many people are your customers.

Mr. John Weigelt: We have gone through that list and do have a quality list of customers. We have an understanding that there is a large number of customers, however, for whom we do not have that explicit knowledge. We feel that is something that we do need some time to go through to have a better understanding of how we reconnect with those people, and whether we are allowed to reconnect, etc.

Hon. Geoff Regan: If someone had registered as owning some of your software, or they have installed it, is that the kind of relationship you require?

Mr. John Weigelt: No. It's more or less someone who has come to a Microsoft event five years ago—or let's say three years ago—and for whom we have a piece of documentation saying they were there. Perhaps it's a survey, but at that time it didn't have an explicit statement saying that they expected to receive email from us. That interpretation is causing challenges for us right now as we look to implement the full language of the act.

Hon. Geoff Regan: I would have thought that would be a very small number of people. Granted, it would be a larger number for your company, but still, relative to the population and to the total range of customers you are after, I would have thought that the number of those who had gone to a meeting, seminar, or whatever would be pretty small, wouldn't it?

Mr. John Weigelt: As we went through it, we first thought it was a relatively small number. We then found that number had increased to a point where it did create a challenge for us.

Hon. Geoff Regan: Would that account for the majority of your email—and here I'm trying to find another word than spam—soliciting more business? I would have thought such email normally wouldn't be going to someone like that. It would be going to people who don't go to those seminars.

Mr. John Weigelt: It's a matter of what that commercial communication is, and in trying to keep people up to date. The definition of commercial communication is also another area we're trying to look at.

Hon. Geoff Regan: These are business customers.

The Chair: Thank you very much, Mr. Regan.

Thank you very much to all the witnesses.

We had some very good answers to some very broad and sophisticated questions. The last time, I didn't mention to the members that they had sophisticated questions. I made sure I mentioned it this time.

Mr. Dan Harris: We got cut off last time.

The Chair: There are two pieces of business for the members here. One is to please remember that once a meeting is gavelled, if you have any communication for the clerk or the researchers, it should go through the chair. That applies to staff as well.

Finally, I've asked the researchers to come back to us after our next meeting and to let us know if there are things that we need to cover for a robust study, that if we haven't asked questions about those things and solicited information on them. So I hope that next week they will give us some guidelines, and maybe some questions that we ought to ask, to make sure that we plug any holes for a future study. So you can be assured that this work is being done as well.

The committee is adjourned.

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