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Chair

Mr. Dan Ruimy

Standing Committee on Industry, Science and Technology

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● (0915)

[*English*]

The Chair (Mr. Dan Ruimy (Pitt Meadows—Maple Ridge, Lib.)): Good morning, everybody.

Good morning, Mr. Allison. Welcome to our committee.

Mr. Dean Allison (Niagara West, CPC): It's good to be here.

The Chair: And Ms. Rudd, welcome to our committee.

Ms. Kim Rudd (Northumberland—Peterborough South, Lib.): Thank you.

The Chair: Welcome, everybody, to meeting 166 of the Standing Committee on Industry, Science and Technology. Pursuant to the order of reference of Wednesday, May 8, we're continuing our study of M-208 on rural digital infrastructure.

We have with us by video conference, from Left, John Lyotier, co-founder and chief executive officer of RightMesh Project; Chris Jensen, co-founder and chief executive officer of RightMesh Project; and Jason Ernst, chief networking scientist and chief technology officer, RightMesh Project.

Welcome, gentlemen, from my home town.

Dr. Jason Ernst (Chief Networking Scientist and Chief Technology Officer, RightMesh Project, Left): Good morning.

The Chair: You can hear us. Right?

Dr. Jason Ernst: We can.

The Chair: Excellent.

From Xplornet we have Christine J. Prudham, executive vice-president and general counsel.

Do you hear us, Christine?

Ms. Christine J. Prudham (Executive Vice-President, General Counsel, Xplornet Communications Inc.): Yes. Good morning.

The Chair: Good morning. Great, that's two for two.

[*Translation*]

We also have Mr. André Nepton, coordinator at the Agence interrégionale de développement des technologies de l'information et des communications.

Good morning, Mr. Nepton. How are you?

Mr. André Nepton (Coordinator, Agence interrégionale de développement des technologies de l'information et des communications): I'm fine, thank you.

[*English*]

The Chair: We're going to get started. We basically have five-minute presentations and then we'll get into our round of questioning.

We're going to start with Jason from Left.

Sir, you have the floor.

Mr. Chris Jensen (Co-Founder and Chief Executive Officer, RightMesh Project, Left): Actually, it's going to be Chris from Left, but very similar.

Thank you for inviting us. We refer back to the mandate of this committee where you said that reliable and accessible digital infrastructure from broadband Internet to wireless telecommunications and beyond is essential. We're focused on the beyond part and John will tell you why.

Mr. John Lyotier (Co-Founder and Chief Executive Officer, RightMesh Project, Left): I grew up in a small town in northern B. C., one of your classic rural communities. I was very fortunate to discover technology at an early age, which brings me here today. For the last several years I've been working on technology called RightMesh, which is mobile mesh networking technology focused on connectivity decisions around the world.

In large parts of the world, including Canada, connectivity is not sufficient. Our focus is on helping to bridge the digital divide. We know that 5G technology is not going to be sufficient in the future to address the needs of the population. There are large parts of the world where 5G will be inadequate due to cost structures, network infrastructure densities and other reasons.

We have been working on a project up in northern Canada in a town called Rigolet in northern Labrador for the last few years. Jason will talk a bit more about that.

Dr. Jason Ernst: In Rigolet there are no cellphone towers and the throughput of the network there when we first started going there was about one megabit per second. It's now usually around two to four megabits per second, and there are still many people in the town who aren't connected. About 300 people live there and there are about a hundred houses. Many of the people don't actually have a direct connection to the Internet. So they gave us a map of everyone in the town showing the houses that have connections and the houses that are sharing with other people and the houses that aren't connected at all.

They've built this app to try to document the climate change that's going on there. They're monitoring the environment. They're documenting their experiences, but the problem is that it doesn't work very well because the Internet is so limited up there. They invited us in to try to use some of the technology we're building to be able to improve the connectivity in the town. So rather than going up through the Internet for everything, they're able to share from phone to phone to phone and offload some of the traffic from the Internet.

Some of the work that we're doing that supports this is through a Mitacs grant. We received this grant about six months ago now. It was a $2.13 million grant supporting 15 or 16 Ph.D. students and four post-docs over the next three to five years. That's mainly to help with the really technical challenges for some of this stuff, but it's also to support [*Technical difficulty—Editor*] within the community, doing trials and doing pilot projects up in the north.

We've also had a lot of interest from other communities in the north. This is just our first community up in Rigolet, but many of the other places in Nunatsiavut have also been interested, places like Nain. The other partner in the project, Dan Gillis from the University of Guelph—that's the main university we're working with—has also been meeting with people in Nunavut. We've also partnered with a bunch of the other universities involved in the project. The app they're building is called eNuk. It involves Memorial University and the University of Alberta. We're also working with UBC. This grant is really the way we've been bringing together universities across Canada to solve this problem in a unique way that doesn't necessarily depend on infrastructure.

We know about the types of initiatives where you can throw a lot of money out the window, build a lot of expensive infrastructure, but there are also unique ways to solve the problem using the things that people already have, the funds they already have. We're coming at it with that type of approach.

● (0920)

Mr. John Lyotier: Really from a technology standpoint, what we've created is a mesh networking software protocol that allows phones to talk to each other; so it's phone-to-phone communication. Should one person have connectivity, the entire network can have connectivity from that one person.

We're bringing this technology around the world. I'm flying next week to Columbia to meet with different government and industry officials who are looking at solutions, whether it's in Bangladesh or in Africa—really all around the world.

We know there is a growing digital divide and that it's being felt here at home as well. We want to do whatever we can to help the local communities as much as we can help the international community.

Mr. Chris Jensen: Thank you for giving us a chance to present. The message we really wanted to get across was that it's not just about big pipe infrastructure. At the end of that pipe, you have to get the message out to the people and allow people to connect within their community and do things within it that are important and vital to them in times of need and times when the world is otherwise slipping by them. That's what RightMesh is about.

The Chair: My apology, John. It said “Jason” for some reason on the notice of meeting, and I read it, but it's actually “John”. Thank you for your presentation.

We're going to move to Xplornet Communications with Christine Prudham. You have five minutes.

Ms. Christine J. Prudham: Thank you.

Good morning and thank you for the invitation to join you today. My apologies that I could not be there in person.

My name is actually C. J. Prudham, and I'm the executive vice-president and general counsel at Xplornet Communications.

I'm pleased to have the chance to put Xplornet's expertise at your disposal in this very important discussion. It's a subject we know very well.

Xplornet is Canada's largest rural-focused Internet service provider, connecting over 370,000 homes, or nearly 1 million Canadians. We're truly national, serving Canadians in every province and territory. We proudly serve those Canadians who choose to live outside of the cities.

Conquering our country's vast geography by bringing fast affordable Internet to rural Canada is more than just our business; it's our purpose. We've invested over $1.5 billion in our facilities and in our network, expanding coverage while increasing both speeds and data for our customers.

Recently, we were excited to announce a new investment of a further half a billion dollars to bring 5G services to rural Canadians. Starting later this year, Xplornet will double the download speeds we offer to 50 megabytes per second. Next year, we'll double them again, making 100 megabytes per second available to our customers.

To do so, we're using the same technology being deployed in Canadian cities—fibre, micro-cells and fixed wireless technology—to ensure that rural Canadians enjoy access to the same speed and data.

Through innovation and private investment, Xplornet is already hard at work to exceed the Government of Canada's target for broadband connectivity in 2030, well ahead of schedule.

It is against that backdrop that we thank the committee for allowing us to comment on motion 208 on rural digital infrastructure. The motion outlines a number of important measures the government can do to incent further investment.

While the Government of Canada does have a role to play, we would caution that there needs to be coordination and balance taken in financial investments. Otherwise, there is a risk of multiple well-meaning government agencies rushing to fund projects and crowding out sustainable private investment.

However, private investment and targeted financial support from government are only two of three key factors that lead to real improvements in Internet services for rural Canadians.

The third is access to spectrum. Spectrum is the oxygen that our wireless network needs to breathe. More literally, it's the radio waves that carry data between our customers and the Internet.

While data consumption by Canadians has exploded in recent years, all significant spectrum allocations by the Government of Canada in the last five years have focused exclusively on mobile needs. Rural Canada needs access to spectrum in order to keep pace.

We note that providing access to spectrum is regrettably absent in M-208, and we therefore propose that the committee consider an amendment to ensure that this essential ingredient is included in the motion.

Specifically, Mr. Chair, the committee may be aware of the 3500 megahertz spectrum band and the consultation currently under way via Innovation, Science and Economic Development Canada. This spectrum band is absolutely critical to serving rural Canadians. The decision, which we understand is imminent, will be the single biggest decision in a decade impacting rural broadband.

If either of the options proposed in the consultation is implemented, rural Canadians will be disconnected. They will lose access to Internet services that we all agree are vital. Instead of moving forward as the motion strives to do, rural broadband connectivity would be set back a decade.

Xplornet continues to have positive discussions with the Government of Canada, and we are hopeful for a solution that does not negatively impact rural Canadians.

Thank you once again, Mr. Chair, for the opportunity to speak to the committee. I'd be pleased to answer questions.

● (0925)

The Chair: Thank you very much.

We've had a bit of a technical difficulty with our translator.

[*Translation*]

Mr. Nepton, you have five minutes to make your presentation. You can do it in French or English, as you wish.

Mr. André Nepton: I'm going to speak in French.

[*English*]

The Chair: Sorry, I'm looking for the thumbs-up.

We're having technical difficulties.

[*Translation*]

Please do not speak too quickly and that will be fine.

You may begin. You have five minutes.

Mr. André Nepton: Mr. Chairman and members of the committee, good morning.

AIDE-TIC, which I have been coordinating since 2009, is a non-profit organization dedicated to the development of information technologies in rural Quebec. We work at the request of communities to establish partnership agreements with large corporations so that people in rural areas have access to services of the same quality and at the same cost as people in urban areas.

By next December, in collaboration with large corporations, AIDE-TIC will have set up 40 projects to develop large telecommunications sites, that is to say 300-foot telecommunications towers serving villages and LTE technology road access. Of the 47 sites that have been developed since 2009, 28 belong to us, on behalf of the communities that requested them. According to its model, AIDE-TIC develops the built infrastructure, and carriers use it on a colocation basis. Thirteen million was invested to provide service to 36 rural communities in Quebec that were without service, and to build five interregional access roads to them.

For the industry, cellular telephony and LTE high-speed Internet, and soon 5G, will require substantial changes that will oppose two needs. On the one hand, the major telecom operators obviously want to increase the number of these towers in view of the 5G technology, which is carried by much lower frequencies. On the other hand, rural communities are increasingly demanding access to equipment and technologies similar to those in urban areas, both on access roads for safety reasons and in the heart of the village.

While AIDE-TIC recognizes that carriers need to increase site density, it is concerned that the significant capital investment required will be at the expense of the last rural networks yet to be developed.

On the eve of 2020, we are talking about safety on our roads, but also about the competitiveness of rural businesses. Motion M-208 eloquently explains the issue of occupying Canada's vast territory. AIDE-TIC believes that this time, we cannot simply leave it to the carriers to set priorities. It is important that the communities with whom we work on a daily basis can also, as beneficiaries, set their priorities in the municipalities where services must be put in place.

We cannot continue to have programs that leave it up to the carriers to define their own priorities. When we call a telecom operator, they mention 100 municipalities they would like to serve. AIDE-TIC wants to intervene, but probably with regard to the hundredth, which is very far from the profitability line, because it is the one that should benefit more from government support and collective intervention. We continue to believe that communities must be involved in program development and that this should not be left to the carriers.

We are very satisfied with the motion that has been proposed. The evolution of wireless technologies means that equipment replacement takes place every 12 to 18 months, which is a very rapid physical obsolescence when it comes to meeting demand.

On two occasions, regarding the 2017 and 2018 budgets, AIDE-TIC argued to the House of Commons Standing Committee on Finance that an accelerated capital cost allowance, but strictly on large telecommunications sites covering access roads and unserviced rural villages, could be a major incentive for carriers to invest more in rural municipalities.

● (0930)

In closing, allow me to thank you, on behalf of the company I represent, for allowing us to share with you part of our vision and to assure you, at the outset, that motion M-208 fully meets our expectations in this regard.

The Chair: Thank you very much.

[*English*]

We're going to jump right into questions because of our shortened schedule. We're going to start off with five-minute segments in the question period.

Mr. Longfield, you have five minutes.

Mr. Lloyd Longfield (Guelph, Lib.): Thanks, Mr. Chair.

Thanks to everybody who has joined us on short notice and using technology.

It's good to see you again, John. We saw each other at the Pint of Science in Guelph a few weeks ago. Dan Gillis put on great events across Guelph where we learned about some of these new technologies.

The presentation that you gave that night, is that something you could send in to our clerk, so that we could include some of those details in our report?

Mr. John Lyotier: Yes, sure. I'd be happy to.

Mr. Lloyd Longfield: Terrific.

One of the main purposes of this study is looking at how we get cellphone coverage into rural areas.

It's an underlying purpose, I should say. How do we get cellphone coverage into areas experiencing floods, forest fires and disasters, where you need to communicate between teams of people to coordinate things like sandbags or water delivery?

When I saw what you've done in Rigolet, it seems that it's something that can be deployed quite quickly. Is that true, in terms of dropping in Android devices into an area and having them connect to each other?

Mr. John Lyotier: Yes, you could do something like that. I think when it comes to a disaster situation when the cellphone towers might be down, that's probably one of the best options. I still think that, in situations where you can use infrastructure, that's definitely going to be the best. This is a good alternative if there is no option like it.

For example, in California when the wildfires were spreading so fast that they were was taking down the cellphone towers faster than people could get the warning messages, that might be a situation where something like this might be useful.

Mr. Lloyd Longfield: Okay.

There are some technology limitations. You mentioned in the presentation in Guelph that some makes of phone don't communicate very well with others. They don't have very good access unless you have certain pass codes. Androids seem to be one of the main focus points for you.

● (0935)

Mr. John Lyotier: Yes.

IOS, for example, is very locked down when it comes to how you can control the connectivity between phones. You can make some small, limited meshes. I think they are making efforts to sort of lock this down so they can control the entire thing. But on Android it's more open, and you can have networks that self-form and self-heal much easier than on other devices.

Mr. Lloyd Longfield: In terms of deployment, if we looked at hitting areas that, let's say, are experiencing some kind of climate change disasters, you could deploy into that area and then leave the infrastructure behind so that those communities would then have access. I'm thinking of communities around lakes.

We had a study on rural broadband a few years ago. Again, the University of Guelph was here talking about the SWIFT network in southern Ontario and the way density is calculated. Quite often there are dense populations around a lake, and then through the whole rest of the area there isn't any requirement for broadband. Then those areas don't get served properly.

It seems to me this could be something that could complement our broadband hard infrastructure into some areas where we have density pockets.

Mr. John Lyotier: I think that Rigolet really shows off that type of use case. There are 300 people there. If you look at the broader area, it's not a very dense place, but the town itself is so dense that you could actually cover it with a mesh of cellphones. We figure with 300 people, we could probably cover the whole town with about 50 phones. We did some tests just walking around with the phones that we brought with us, and with about 10 or so you could reach from one side of town to the other. Then it's just a matter of filling out the rest of the town with the phones.

You could use some actual hardware, some hardware off the shelf, and in addition to that you could make some longer links for the phones—maybe you don't reach as far. This type of strategy, I think, is really a low-cost and effective way you can combine that with maybe one fast Internet connection into town.

Mr. Lloyd Longfield: Finally from me, has Rigolet developed to a point where you could then scale it to other communities?

Could you take, let's say, the learning from Rigolet and apply it to other northern communities and then maybe some other communities, let's say, in southern Ontario that don't have access?

Mr. John Lyotier: That's pretty much our plan right now, and beyond even Ontario and Canada, we're looking at places in India and Bangladesh and parts of the developing world as well. The challenges are a bit different in some of those places. The density is not so much a problem in those places.

We have learned a lot in Rigolet. With a lot of the interest that we've been generating at some of the events we've been going to, there are definitely other communities interested.

Mr. Lloyd Longfield: Terrific. Thank you very much.

The Chair: Thank you very much.

Mr. Albas, you have five minutes, sir.

Mr. Dan Albas (Central Okanagan—Similkameen—Nicola, CPC): Thank you, Mr. Chair.

Thank you to all the witnesses for taking the time out of your schedules to be with us and to share your expertise.

First, to the Agence interrégionale de développement des technologies de l'information et des communications, in a brief that you submitted to the finance committee in 2016 you were advocating prioritizing mobile wireless in your government's rural broadband funding programs. In a world with obviously limited money, do you still think focusing on mobile coverage is of higher priority than home broadband?

[*Translation*]

The Chair: Did you hear the question, Mr. Nepton?

Mr. André Nepton: Yes, absolutely.

When we call on elected officials in our municipalities, the priority is cell phones. Indeed, since the advent of LTE technology, both Internet access and telephony can be offered. It is clear that for the Internet, costs are a little higher, but telephony is the basis of security, especially on our access roads.

Elected officials are constantly asking us for more than affordable access to the Internet. However, various technologies, including the advent of satellite transmission, have so far made it possible to meet current standards. As a result, the priority remains bandwidth, despite urban sprawl and low population densities.

[*English*]

Mr. Dan Albas: I certainly agree that safety is a priority, but as my colleague Mr. Chong has said a number of times, it's not just a question of accessibility; it's accessibility to make sure there's safety, but also affordability. When I hear from people in rural areas, I hear concerns about mobile coverage as well as home broadband. However, when most people don't have access to affordable Internet in their homes, that seems to be a top priority. Mobile data is inherently more expensive than land-line data. Is this not a concern when prioritizing mobile data over fibre to the home?

● (0940)

[*Translation*]

Mr. André Nepton: The industry is in the process of adjusting its pricing, which you can see.

Indeed, the residential fixed wireless industry is constantly reducing its prices and increasing its performance. In my opinion, to meet the competition, the residential fixed wireless industry will adjust in the medium term.

[*English*]

Mr. Dan Albas: No, I can appreciate that argument, but again, for many people, if there's no capacity to pay what the going premium is, it can be very difficult. I do thank you for the answer, and I do hope that the price differential does resolve itself.

Moving over to Xplornet, how many of your rural customers are currently on a fixed wireless solution?

Ms. Christine J. Prudham: Almost 60% of our customers.

Mr. Dan Albas: I have been watching closely, but I still have not seen a decision from government on how much of the 3,500 megahertz spectrum they plan to claw back. According to your brief to ISED about this clawback, you indicated that it would negatively impact your business. Do you have any sense of how the government will proceed upon hearing that?

Ms. Christine J. Prudham: Upon hearing that it will negatively affect our business?

Mr. Dan Albas: Yes.

Ms. Christine J. Prudham: Well, they have certainly been concerned, obviously, about the potential impact of this. I think they have listened carefully to what we've had to say. We've been very transparent with them. We've mapped out all of our customers and indicated exactly the areas where there is potential for impact. When I say we've been trying to work towards a solution, we've certainly done everything we can to provide the information. At the end of the day, it will be up to the minister and the department.

Mr. Dan Albas: If the government went with option one, how many of your customers would lose service?

Ms. Christine J. Prudham: A significant percentage.

Mr. Dan Albas: Can you put a rough estimate to it, approximately?

Ms. Christine J. Prudham: I'm afraid we'd have to go through and revive those calculations. I think I'd prefer not to say on the public record, to be perfectly honest, but—

Mr. Dan Albas: Would "significant" be over 50%?

Ms. Christine J. Prudham: Probably.

Mr. Dan Albas: Thank you.

The Chair: Mr. Masse, you have five minutes.

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

Thank you to the witnesses for being here today.

I'll quickly go around the table. We're running out of time.

What would be your number one priority for the government to act on if there were a regulatory change that could take place right now? I know that narrows it down quickly, but the current Parliament has a short runway, and regulations can take place right away.

The minister has already said that motion 208 will not be implemented through any type of legislation, so it's basically a lame duck, and anything that would be required will need some type of renewal, but there are regulatory changes that can take place, especially given the fact that the minister has already identified that the motion will not have any type of statutory movement.

Mr. John Lyotier: For me, I think anything that increases competition and anything that opens up spectrum are the biggest issues in Canada.

Anyone else can add to that.

Dr. Jason Ernst: I'll add to that. I think the biggest thing is that it's easy for the big telecoms to focus on the average revenue per user, and they can make a lot of money from the urban consumer. However, those in the northern markets or those in rural communities have a lot to offer, but right now we're at risk of leaving them behind.

As a pure action item, keep on talking to groups like us. Talk to the witnesses you have here. We all want to make sure that the rest of Canada is connected. The best thing to do is keep on talking about it. There will be solutions come out other than from the big telecom companies.

Mr. Brian Masse: Thank you.

We're running out of time.

With that, Mr. Longfield brought up some interesting aspects with regard to emergency services. So I'm going to move the following motion:

> That the Committee immediately hold two meetings for the purpose of understanding the current mobile phone services for Canadians during times of emergencies.

I can speak to the motion at the appropriate time, but I have moved the motion now, especially given the fact that we've had problems in the past with services, including in the Ottawa region.

● (0945)

The Chair: Because the motion is in line with our subject matter today, it is a moveable motion. It will be up for debate.

Mr. Graham.

Mr. David de Burgh Graham (Laurentides—Labelle, Lib.): I would just like to say that I agree in principle about what you want to do. That is the half of M-208 that SECU was supposed to deal with, and SECU is starting to deal with it.

I propose that we discuss it at the end of the meeting so that we don't lose our time with our witnesses, but I do want to discuss that further. It is what SECU was supposed to be dealing with, as it's half of the M-208 motion.

The Chair: Okay.

Mr. Brian Masse: I will speak, and you can call the question on the motion when you can, Mr. Chair.

We have a chance to have two meetings. Given the emergency situations that we've had.... This committee passed on an earlier opportunity to study cellphone coverage services during the tornado this region faced before, and we've subsequently had other problems. We have enough time to have two meetings to have the large telcos and other service providers provide some testimony to educate Canadians about what they and their families should receive during times of emergencies and also potential cracks, stresses or problems in the current system that we have.

There's no doubt that there is a lot of misinformation. There are also concerns related to the fact that people can't even get the coverage they thought they would get. Also, there's the planning aspect for municipal, provincial and federal services that have to coordinate.

Having two meetings, I think, is a responsible and a meaningful attempt to at least provide that basic sense of information so that there would be some great clarity with regard to what takes place during times of emergencies.

Also, more importantly, we use this opportunity so that people can plan appropriately and the government can respond. This Parliament is going to be wrapping up soon. Without that direction, we will be leaving Canadians in a grey zone with regard to coverage for half a year at least before Parliament resumes after the election.

I think that having two meetings is appropriate, and we have a time frame wherein we can do that. It would provide an opportunity to at least place some expectations for service delivery.

Last, Mr. Chair, is the opportunity to raise concerns about those services for the greater public.

Thank you.

The Chair: Thank you.

We have Mr. Longfield and then Mr. Chong.

Mr. Lloyd Longfield: I move that the debate now be adjourned.

The Chair: Okay.

Mr. Brian Masse: Can we have the vote, then? We can have the vote and go from there. The vote will only take a second. Can we have the vote on the motion?

The Chair: It is a non-debatable motion, so we will adjourn that motion, and we'll go back to our witnesses.

Yes, we'll go to a vote.

Mr. Brian Masse: What are we voting on? I'll ask for a recorded vote.

So we're not going to have a discussion on—

Mr. David de Burgh Graham: Not with the witnesses here.

The Chair: The motion is to adjourn the debate.

Mr. Brian Masse: Before that, though, I called the question for the vote, so I called for the question to be.... Maybe you have an explanation of why, when I called the question before that, the debate was to adjourn.

Mr. David de Burgh Graham: That's not procedurally valid.

The Chair: Please, you gave up the floor. You can't call for a vote. Everybody has their chance. Mr. Longfield has asked to adjourn the debate, which is in line, so that's what we will do, and we'll put that up to.... Did I hear a request for a recorded vote?

● (0950)

Mr. Brian Masse: Yes.

The Chair: Okay, we'll have a recorded vote, please.

(Motion agreed to: yeas 8; nays 1)

The Chair: We're going to move to Mr. Graham.

You have five minutes, please.

Mr. David de Burgh Graham: Thank you to the witnesses. I would like to apologize to you for that little delay. This is what we're talking about, how to deal with these services. I think that's already the purpose of what we're doing here.

I just have a couple of quick questions and then I'll hand it off to others, because I know a lot of people want to ask questions today.

Xplornet, you have a lot of LTE antennas in my riding and a lot all across the country, as you discussed with Mr. Albas a minute ago.

C.J., what is the possibility in the long term of using the fixed mobile services infrastructure for mobile service as well? Is that a possibility, or are they two totally different worlds?

Ms. Christine J. Prudham: It is a possibility. The 5G [*Technical difficulty—Editor*]

Sorry, there is tremendous feedback on the line.

The 5G technology will see a merging of the fixed wireless and mobile configurations. It's expected that the radius will be substantially similar, if not identical, so the ability to do exactly that is highly, highly likely.

Mr. David de Burgh Graham: Okay, that's wonderful.

For RightMesh, I'm going to ask the same type of question. I was surprised to be in Manawan last year, a reserve north of my riding, where everyone had cellphone service through WiFi on the reserve, but there is no actual cellphone service per se.

Using your technology and your systems, could we go so far as to stick mobile phones on top of a tower and have repeaters around an area that way to create a network?

Mr. John Lyotier: Yes, I suppose you could do something like that. I think maybe another use case we could do in that type of situation is to extend out the WiFi beyond the coverage it currently has.

Mr. David de Burgh Graham: I would have a lot more—

Sorry, go ahead.

Mr. John Lyotier: Sorry, I wasn't sure if you could hear me there for a second.

Yes, you could extend the WiFi coverage beyond what was possible there. Rather than being within a one-hop range of the WiFi network, you may be able to be four or five hops away, a few phones away rather than right in the town.

I suppose you could stick it on top of a tower, but I think at that point you might as well make use of antennas and things that are designed for that type of thing. There is off-the-shelf hardware that you can use that's probably cheaper than going all the way to a cellphone tower, but you could use some hardware for that.

Mr. David de Burgh Graham: That's fair enough.

I have a lot more questions, but I don't have a lot of time, so I'll pass some of my time to Mr. Massé.

[*Translation*]

Mr. Rémi Massé (Avignon—La Mitis—Matane—Matapédia, Lib.): Thank you, Mr. de Burgh Graham.

Mr. Nepton, in your presentation, you mentioned that the carriers should not be the only ones to designate the locations to be served. You said that perhaps elected officials should be involved in this process. I would like to hear your comments on the CRTC's strategy, which has established a map with hexagons to determine which areas are served and which are not.

According to you, is this map appropriate to try to specify the areas to be served and the funds needed to provide these areas with infrastructure or technology?

Mr. André Nepton: That is a relevant question.

Since we have conducted very exhaustive studies, mainly in Saguenay-Lac-Saint-Jean, on Internet and cellular coverage for speeds of 50 to 10 megabits per second, I can tell you that the CRTC's maps, like those produced by Industry Canada, unfortunately have some shortcomings. The design of these maps is based on voluntary declarations by the carriers. For the very large players, the map is quite accurate. When it comes to providing information, companies such as Rogers, Telus, Vidéotron and Cogeco are very rigorous. Unfortunately, for smaller players, it is also in some cases a strategic element aimed at limiting a competitor's development capacity in a given territory. Since the player must declare what speed he is offering in given places, it can happen that the lead of his pencil is a little thicker.

We noted in our area, particularly on the last CRTC map, that about 20% of municipalities designated as already well served were not, in fact. A lot of in-depth work must therefore be done to demonstrate that the map is not entirely accurate. The CRTC's position is that we must demonstrate that the territories are not well served. It will then request a new assessment from the carriers concerned. This basis is an excellent element for decision-making, but needs to be refined from local results.

● (0955)

Mr. Rémi Massé: Thank you. Your feedback was greatly appreciated.

[*English*]

The Chair: Mr. Albas, you have five minutes.

Mr. Dan Albas: Thank you again, Mr. Chair.

I'd like to go back to Xplornet. In my previous questioning, I asked you for your opinion on option one and how many customers would lose service, and I do understand there's some reluctance to share exact information, but I'd also like to ask how many customers would potentially lose service with option two.

Ms. Christine J. Prudham: Our concern is not only who loses service, which is obviously extremely concerning if you're completely cut off, but with the reduction they are proposing, the net result would be a diminished service for those who [*Technical difficulty—Editor*] to be connected. You not only have the folks who are losing service, but you'd also have virtually everyone being impacted by diminished service.

Mr. Dan Albas: As spectrum is very, very important when I speak to industry representatives, this obviously will harm rural areas, because people want to be able to access the economy and make use of different health initiatives. I know the Province of British Columbia has invested quite a bit in rural health initiatives via Internet. That would be an issue if the government proceeded with option two, correct?

Ms. Christine J. Prudham: Very definitely. The one key thing to understand is that, in urban areas, spectrum only carries the one to two gigs that the average person uses with cellphones. In rural areas, it carries 160 gigabytes per month, so it's magnified more than 150 times what the urban situation is in terms of per person usage.

Mr. Dan Albas: I appreciate your pointing that out.

As the 3,500 megahertz spectrum has been used for rural deployment of fixed wireless, it is now very desirable for 5G coverage. In your opinion, should the government find new spectrum and set it aside for fixed wireless?

Ms. Christine J. Prudham: There is. The international band being designated, which is referred to as “the 3,500” actually goes from 3,400 megahertz up to 3,800 megahertz. Currently, we're using only 175 megahertz of that. They don't need to actually displace the existing licensees. They can look at what the government has already identified as 75 megahertz below the existing band that could be made available, and 100 megahertz of what is currently referred to as the “C band”—3,700 megahertz to 3,800 megahertz—and make that available. It's currently used for satellite, but it is not fully utilized, and arguably could be shifted up into the 3,800 megahertz to 4,200 megahertz range.

Mr. Dan Albas: So there are other options than what's on the table. Is that correct?

Ms. Christine J. Prudham: Absolutely. As I said, 175 megahertz is available today. There is approximately 175 megahertz that could be made available, literally, tomorrow.

Mr. Dan Albas: When that is raised, what is the response?

Ms. Christine J. Prudham: The government was very thoughtful and has taken that away.

Mr. Dan Albas: Okay.

What is your opinion on the current consultation around smaller tier areas for spectrum auctions? Do you think that flexible spectrum and separating urban from rural areas could help alleviate the problem?

Ms. Christine J. Prudham: It could certainly help a great deal. Xplornet is supportive of that. If you're familiar with the current tier-four areas, you know that Calgary and everything through to the Rocky Mountains right up to the B.C. border is within one tier known as Calgary. That makes for a tremendous number of people who are definitely in rural Alberta who are trapped within the urban licence of Calgary.

● (1000)

Mr. Dan Albas: I've seen the same issue when it comes to Montreal. If you look at the amount of space, it incorporates a number of small outlying communities, and not just Montreal itself. This is something that's present right across the country.

Ms. Christine J. Prudham: Absolutely. It's a huge issue in the greater Toronto area.

Mr. Dan Albas: Thank you.

The Chair: Now we're going to move to Mr. Amos.

You have five minutes, sir.

[*Translation*]

Mr. William Amos (Pontiac, Lib.): Thank you, Mr. Chairman.

I thank the committee for this opportunity. I also thank the witnesses for their participation.

For my part, I would like to focus the discussion with Mr. Nepton on the role of our municipalities in the development of wireless cellular coverage. When I talk to the mayors—and there are more than 40 in the Pontiac riding—the feeling expressed is one of lack of control and frustration with the network and the relationships with the companies, which are not necessarily there to involve our municipalities directly and closely. If they do so, it is rather because it is in their own interest and not in the public interest.

In your opinion, how can we best involve our municipalities in the decision-making process regarding wireless telecommunications, first, and broadband Internet service, secondly?

Mr. André Nepton: AIDE-TIC works directly with mayors, RCMs, governments and the departments involved. We always approach the issue in the same way.

For example, when we meet a group of mayors from the same RCM to discuss the construction of cell sites, we ask them which ones to prioritize in order to serve the population, for safety reasons or to provide adequate coverage to tourists, the latter being a concern that recurs on a regular basis.

Once we have established contact with the mayors, they take responsibility and become aware that the priorities also determine the development periods. We also make it clear to them that this site development project is often the beginning of regional coverage. In this context, I would say that these groups of mayors are systematically aware of the most pressing local concerns and therefore want to prioritize them.

On the other hand, current programs generally require that any development project be endorsed by a municipal resolution. No mayor will refuse this resolution to a company if it wishes to improve its network. However, previous programs always talked about the Internet, but never about cell phones. Allowing a company to offer Internet access at a download speed of five megabits per second therefore prevented the development of any other technology in the territory.

Because we work closely with the Fédération québécoise des municipalités, we see that mayors—particularly in Quebec—now want to be involved in setting these priorities. Again, if the decision were left to large companies, these priorities would depend on the size of the population and the number of vehicles passing through. We must therefore remember local concerns and involve our mayors, since they are accountable and want to establish their local priorities.

Mr. William Amos: Does this also apply to municipalities in western Quebec and the Outaouais?

Mr. André Nepton: We are starting to work a little more on the western Quebec side; we operate on demand.

You will understand that AIDE-TIC is not the watchdog for the interests of the major carriers. If one of these companies approaches us, it is because the site they want to develop is profitable. We will therefore not intervene, and the company will develop this site itself if it decides to do so. It is the environment that takes care of it.

We have projects in James Bay, the Lower St. Lawrence and the Laurentians, but we have not yet been approached in the Outaouais.

● (1005)

Mr. William Amos: I have one last question in the 40 seconds I have left.

I am particularly interested in how, in our government's future programs, we could better support our municipalities and allow them to participate in this process. For example, should we consider providing them with the services of engineers or specialists to save them these costs?

Mr. André Nepton: Under the current model we have developed, municipalities give us the mandate to build telecommunications towers, offer them to major carriers and manage them on their behalf. We have proven that our installation costs are much lower than those of these companies. So that's the kind of support we could also provide to municipalities.

Mr. William Amos: Thank you, Mr. Nepton.

The Chair: Thank you very much.

[*English*]

Unfortunately, I hear bells for a vote. Can we get unanimous consent to stay 10 minutes further to finish off?

Some hon. members: No.

The Chair: No? Well, on that note, I'd like to thank all of our witnesses for being here today. Unfortunately, we are being cut off because we're being called to the House for a vote.

Thank you very much. We look forward to seeing the end result of our study.

The meeting is adjourned.