Rogers Communications
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Dave: Hey everybody, thank you for joining us. I really appreciate it. Welcome to the 2021 Virtual London-based Global Telecom, Media, & Internet Conference, again, hopefully for the last time ever. I'm Dave Barden. I head up Telecommunications Services and Communications Infrastructure Research for the US and Canada, based in New York. Thank you for joining us. We really appreciate it.

Today we're really pleased to welcome Joe Natale, CEO, and Tony Staffieri, Chief Financial Officer of Rogers Communications. Guys, thank you so much for being a part of this conference again. We are really glad to have you.

Joe: Thanks Dave. It's really great to be here again. We hope this is the last virtual B of A conference. We look forward to seeing people in person and I think it's a treasure we're all looking forward to.

Dave: Yeah, I am too. Unfortunately, this is not the last one. Our next B of A Telco conference on September 13th and 14th ordinarily in Los Angeles, also will be virtual. But I think that at some point in the fourth quarter, things are going to be back to normal.

So look, I think – thank you for doing this again. Obviously the first question I have to ask is, I need pinpoint accuracy on where the Rogers-Shaw merger stands right now.

Joe: Sure. Well, first of all, I'm not sure I can provide pinpoint accuracy, but I will give you my very best judgment as to where it stands. Overall we're feeling pleased with the progress so far; but we're still in the first fee innings of the regulatory approval.

I would say to you first of all, we're – go back to some of the key principles around the deal. The networks are very complementary and so we believe there's an extraordinary synergy opportunity to be unlocked in bringing the companies together and the integration around the companies.

We know it'll create a coast-to-coast internet and fiber network that will be very important in terms of putting us in a competitive position. We're not just consumer internet, but also small-medium business internet services. And we're very excited about it.

We received a very overwhelming positive shareholder approval, which was nice to see. We got approval from the operator court, because of where Shaw is headquartered, the operator court had to approve us. And now we're really pursuing three different regulatory approvals, overall. One is the CRTC for the transfer of the cable and on-demand, entertainment type licenses, the BDU licenses. As I said, there's really roughly no overlap in the cable business, so we don't suspect that will present any major challenges.

Secondly, we're working with Industry Science and Economic Development, or ISED Canada, around the spectrum transfer of licenses that they govern. And there's a wide degree of spectrum, from low frequency to mid-band spectrum that we're trying to activate the transfer of.

And then, of course, the biggest effort overall will be to the Competition Bureau, the sort of Canadian equivalent of the Department of Justice. Certainly look at the state of competition in Canada and how this will play out. We feel we've got a very strong fact base. We feel we've got a very good set of thoughtful economic arguments.

The fact of the matter is, the Canadian landscape is an intensely competitive one; and that will persist, even after the completion of the deal overall. We're still very bullish on the completion of the deal. Our timeline hasn't changed from the last time I spoke of it. We think it'll happen in the second, sorry, the first half next year, the first half of 2022, somewhere in that timeframe, overall.

And so far so good. I mean there's been a lot of information exchange, a lot of discussion; and we're really going through a thoughtful set of submissions, economic and otherwise, around why this is a great idea. And so far we're feeling good about where we stand. David, I think you're on mute.

Dave: Sorry, yeah, I was. Thank you. So Joe, I think that most people look at this deal as having two parts. There's this kind of national cable part and then there's the wireless part. So I want to break that down into two pieces. With respect to the merger of the East and the West cable properties, are there risks or challenges, from a regulatory standpoint that people don't see?

Because I think most people think it shouldn't be a problem. But in the US, when Comcast and Time Warner tried to merger, there was this idea that there was too much concentration of broadband power. How do you think that this plays in Canada?

Joe: We don't think there is a major obstacle or challenge in the cable or wireline side of it. Look, the cable industry has grown up through consolidation and mergers, large and small, over the last many decades. Secondly, even together Rogers and Shaw, from a wireline point of view, would still be smaller than the largest player in Canada.

And thirdly, if you look at the need, the biggest policy need or narrative that's coming out of Canadian policymakers right now is we have two big – a population of underserved Canadians. One thing that I hope is really demonstrated is that more than ever, connectivity matters. It is not adjacent to life, it's embedded in every aspect of our lives, whether it's a conference like this or kids learning online or doing your job, finding a job and all these things that are happening.

Well, there are a few million households in Canada without high-speed internet. And for a country like Canada, that's not acceptable. And the only way to solve that problem, go after that problem, is to have players that are willing to invest and are capable of investing; and they're able to pour synergies back into the infrastructure that will continue to drive the growth and opportunity in the marketplace.

So there's a big part of the argument that we're putting forth, overall. We don't suspect that there'll be any issues from that front, as a whole. Like I said, we are the broadband provider in Canada's biggest province in Ontario, as well as New Brunswick and Newfoundland. I say broadband, I mean residential or consumer broadband.

And Shaw's territory is in British Columbia, Alberta, Saskatchewan, Manitoba and parts of very far Western Ontario. You got zero overlap overall. And these are scaled businesses. These are scaled businesses. And Canada's population and population density is very different than the US, very, very different than the US. The economics of this business are really all funded by a few major cities and the concentration of those cities.

And therefore, the rural divide doesn't get solved, nor can the expansion and investment in 5G get solved without strong balance sheets and scale. So that's a big part of our discussion, a big part of our argument; and it's very much aligned with the narrative and the priorities of the Canadian government and policymakers at this point in the evolution.

We've seen some very important regulatory decisions come out in the last little while. We saw the reinforcement of the fact that investment orientation, infrastructure-based competition is the right answer for Canada. It's got through in the wireless review that was decided a few short months ago. And then just very recently, the third-party internet access decision was also based on making sure that we continue to drive investments.

And the structure investment has served us well as a nation, and having some of the best networks in the world, bar none. We always sit within number one and number two in the world. And we believe that the coming together of Shaw and Rogers will help cement that investment mindset, and continue to drive the equation that front.

I'll stop there David, but that's why we have that thinking. Different policy goals.

Dave: Yeah, no, I mean look, I think you're right, from a facility-based standpoint you're right. The recent regulatory rulings seem to support that position. The second piece of the puzzle is the wireless business. And for the people that do these kind of populations, for the pundits, people seem to be putting something on the order of a 60% chance that the deal gets done, as its proposed.

And it seems to your arguments to have less to do with the cable piece of it; and it has more to do with the mobile piece of it. And there's a lot of questions inside that. One is, you've kind of thrown out a billion dollar in synergies. Can those synergies be achieved if the mobile piece isn't part of this equation?

Joe: Well, the vast majority of synergies reflect the opportunity in the wireline side. Maybe I'll give Tony a chance to jump in in terms of just at least at a broad level unpacking those synergies as a whole. What I'd say to you on the wireless front, if you look at the number of Canadians that changed providers last year or the year before that, the vast majority of the movement is amongst the three large players in Canada. That will persist, that will persist in terms of whatever market structure comes out of this regulatory review.

I've spent my career in this industry and Troy and I sit every Monday or Tuesday morning and go through what happened this weekend. And I would tell you at the heart of what happened each weekend is always what is the interplay amongst the large players as they go after the growth of the market. I'll just paus there and give Tony a chance to unpack some of the synergies for the audience.

Tony: Yes. When we announced the transaction, we indicated that our estimated synergies were at the billion dollar mark. And as we've continued to scrub out those numbers and to the extent that you can legally dialog with Shaw on certain areas, we've come to realize that we have a higher degree of confidence with those synergy savings than we originally thought. And so everything is pointing in the right direction.

And more importantly, a high degree of confidence that most, if not all of those savings will come from cable alone, with wireless synergies on top of that. The synergies continue to be in the three categories we highlighted, namely, capex synergies, revenue upside synergies and cost synergies.

On the capex side, as we stated earlier, at the very highest level, capital avoidance for us in acquiring the deep vibrant coax that Shaw has for our wireless network, is capital avoidance for us in the $1 to $2 billion range, and probably more, as we look to access much of their dense Wi-Fi spots that will really be important for 5G.

Beyond that, as we look at to capex, when you look at their current spend today of about $1.2 billion, a third of that is on wireless. And that clearly is redundant for us. And the other third, think about it as on system support that are going to be duplicative, we're going to take some of that, much of that, and put it back into network, in terms of quality and expansion.

And then on the cost side, that's where most of the synergies are going to come from, particularly in the first two years. And as we dig into it, the items that we thought were going to be there, in terms of savings, continue to be there and then in the categories we previously talked about.

And then finally on the revenue side, huge opportunity for us to enter not only a cross-selling and quad play type of initiatives, but importantly in the enterprise space. And having a national footprint in both wireline and wireless is going to allow us to enter a space that we just didn't have permission previously because of the more limited wireline footprint.

So all that to suggest that in the billion high confidence in the first two years of closing the deal, with additional synergy benefits beyond that.

Dave: Thanks Tony. So I think that the question that people have, and I think that that's great, obviously there's a huge benefit to Rogers for kind of putting these two pieces of the national cable platform together or opening up the enterprise opportunity. I think that people wonder about the wireless remedy. And you may not – you guys may not feel comfortable talking about that, because no one wants to negotiate against themselves.

But I think that people wonder if, with hindsight, Shaw is effectively admitting maybe being the distant fourth facilities-based player in the marketplace, wasn't a great strategy for that. However, if there is someone out there that does want to be that player, could it be worse than having a subscale fourth wireless player in the marketplace?

Mike Sievert's(?) on the board of Shaw. What if T-Mobile came into the marketplace? Obviously there's foreign ownership rules I know – but what if Cabicor(?)decides they're going to take advantage of the new MVNO rules, force you guys to negotiate an MVNO? And they've been pretty successful in Quebec.

So how do we think about the remedies in wireless? Are we sure that we're not creating a monster somehow through this process? And how does that weigh on your thinking about seeing this transaction all the way through?

Joe: Well, first of all, I'll say that our priority is to purchase all of Shaw and we're working with regulators to do exactly that. And we think we've got a great fact base. The second thing I would say, Dave, is that competition has been strong and alive and well in Canada for a very long time, before the regional entrants, before we had a whole series of new licenses awarded over a decade ago, etcetera.

And that will persist in the future. That is not changing. That's not going away as a whole. But what the government has said very clearly is that infrastructure investment matters, even in the MVNO decision. There is a requirement, supply spectrum and a requirement to build in that decision. Which means unless you buy spectrum and build in that territory, you can't sell in that territory. You may get a roaming agreement outside the territory, but try to engender the investment, especially as we're on the doorstep for 5G.

And Canada is not like any other country in the world from one perspective. That is sheer geographic mass and low population density. And the most important factors in the calculus of this industry are exactly those items. So what have you got? You could fit – if you look at European countries, or take some countries we all talk about all the time -- you can take five Frances, five Germanys, five UKs, five Japans and to boot, add five Italys -- more kind of playing to my roots – and you can – there's no room left over in Canada. _____, there's still room left over and we have to cover that territory.

And we want to cover that territory. We pride ourselves in the quality of our networks and its reach. Those five countries have a population of 400 million people combined. Canada has a population of 38 million people. So I would ay to anyone that wants to come to Canada, come on in, come onboard. We understand this market. It requires a strong balance sheet. It requires scale. And the doorstep to 5G requires reupping in terms of that investment.

And this was fully addressed in a cycle around 2012 or so when there was chatter around some of the US players coming to Canada. The fact of the matter is that we have some of the best networks in the world, but they've come because of the opportunity to invest in those networks.

And the policy debate is around what do we want for our future? And we hear it directly from policymakers. What I would tell you that the importance of 5G, the importance of digital economy, connecting underserved Canadians, like that's the dialog on the table. There are many people that don't have that capability; and it's only going to come from investment.

Look at the countries in the world where the regulatory landscape has not been as conducive to investment. And they sit far behind Canada. Even though they're developed nations, they sit far behind Canada in terms of internet penetration, in terms of 4G LTE coverage, never mind 5G coverage.

So rooted in the answer is what is the public policy view of the future? And countries have different views and stances on these things. We can compare the US and Canada on many fronts, because we're neighbors; but the Canadian landscape on healthcare because the US is fundamentally different, in terms of policymaking.

And the Canadian landscape on where should telecom policy go has some different notes and elements to it, especially with respect to serving the needs of remote Canadians or indigenous communities that have less than adequate intent service. So in there is a whole set of policy items that I think will be central to the discussion of the argument.

If all we wanted to do was go to the lowest common denominator, then Canada could have erased foreign ownership restrictions and every one of the telcos and the cable _____ would be a target for a large international operator to buy and harvest the synergies. And then that would lead to a lot of jobs leaving Canada. And I don't know who's going to build to rural or indigenous Canada when all the money is made in a handful of cities, given the population density. So it's a bigger question than just lower prices, is my point there.

Dave: No, good point. Look, my last question on the inorganic side of things, before we kind of pivot a little bit to what the business is actually doing, is how important is it, do you think, to the Canadian landscape that the US said yes to the consolidation of the number 3 and the number 4 player to create the number – the new number 2 player in wireless in the United States? Presumably for the argument that, to your point, scale is how telecom works, and the bigger the scale, the better it works. And maybe – and there's – well I'll leave it there. What do you think about that?

Joe: There's no question it's a very important benchmark _____ and one that's being examined I'm sure by regulators and by the industry as a whole. I would say a lot of datapoints include many European countries that have done the same. There's been a consolidation happening in a number of places, in Europe as well. Why? Because infrastructure investment versus health competition is an equilibrium. And the goal of any country -- and we're all for during affordability. The best way to drive affordability is to create scale and to leverage technology to bring costs down that can be then passed on to consumers.

Many countries have shown that you can achieve both policy objectives by really focusing on whether you have strong, large, vibrant competitors. Because the competition comes from vibrant, successful competitors that are dynamic and aren't afraid to use their balance sheet. So whether it's 4, 5, 6 or 25 competitors, it's almost irrelevant from that respect. It really comes down to do you have strong, healthy competitors with the ability to invest in the future?

Because in their pursuit of that investment, they will find a way to drive economic return; and therefore, be able to participate in the objectives of 5G, 6G and whatever else comes after that. So I think that's sort of the broader question, if you like.

Dave: Let's shift gears a little bit. And so pre-pandemic, Rogers was really at the vanguard of adopting the unlimited plans and digesting the impact that that would have on overage, trying to shift the industry towards the handset EIP model. Maybe this question is for Tony. From where we were to where we thought we would be to where we are, where are we on that? And where are we going at the margin?

Joe: Sure, Tony, do you want to take that? I think first of all, we're very happy with the progress on all of those fronts and I'll give Tony some airtime here and give him a chance to explain why we're pleased with the initiatives we took way back when.

Dave: Way back when is really four months ago.

Tony: That's really the punchline is, largely, when you look at it two years later, largely as expected and pleased that it's come in the way we expected. There were two things we introduced back in late June of 2019. As you referenced, one was EIP and away from the subsidy model that was prevalent in Canada. And the second was the introduction of unlimited plans. And use that term loosely in terms of capped plans that were _____ in terms of speed after _____. Not unlike the US.

And we thought on the EIP, primary advantage was to really move the consumer mindset to one where they thought the handset was free and gave little value to it; and they just looked at the total monthly costs and assumed the carrier was making that amount of money. And it has been successful in separating in the consumer's mind, as well as the business enterprise, the sheet costs of the handset versus the service we provide.

And along those lines, driving decisions that are independent of each other, in terms of which plans versus which handset. And overall, if you're to look at the industry, it has significantly reduced the amount of handset subsidy, if you will, or discount that is provided to the consumer. And that's been a good thing because it's allowed us to be more effective on pricing on the data transport side.

On the – and the whole industry has really moved to the EIP model. And so we see that as being hugely successful.

In terms of moving to unlimited, the short-term impact, and near term, was going to be a reduction in overage revenues that we were enjoying, and the industry was enjoying. Our view was it was going to take six to eight quarters for that to work through. And we had initial demand that suggested might be closer to six, partly because of COVID, it slowed down. And I would say we're sort of on trac, notwithstanding COVID, so that by the end of this quarter, overages no longer are going to be a factor in our year-on-year ARPU and service revenue declines.

It'll continue to be there, but it's not going to be as material. And against the backdrop of growing ARPU and growing service revenue, you won't hear us talk about it. There may be a quarter where we might have an unexpected number of customers move to unlimited; and therefore, it might cause a short-term look in additional overage. But we see that as a good problem to have, if that were to come about.

And so that sort of goes away. And when we look at our overall profiling of the objectives we had for unlimited, all of those are coming in as well. If you were to look at churn for customers on unlimited plans, substantially below the population set for post-paid overall. If you look at cost-to-serve, much less in terms of calls into the call center or reaching out digitally. And we can see that there's a customer with a very much higher satisfaction score, than on capped plans.

And a whole bunch of other benefits that we intended to go with it and all of those have come to fruition. So overall, generally on track and pleased with the trajectory.

Dave: Thanks Tony. So you then talked about maybe second quarter ARPU and the wireless being roughly similar to 1Q. At the margin I imagine there's got to be a couple different vectors of potential growth. One is going to be overage, another is going to be kind of immigration and travel kind of returning. Another is going to be these upgrades to the unlimited plans. Can you talk a little bit about what is the outlook for ARPU where we sit today?

Tony: Sure. Just very briefly in terms of some of the things you've talked about, immigration, COVID easing, etcetera, those are going to increase just the size of the pie overall. And so while we've typically seen growth in Canada in the wireless sector of 2 to 4%, all those factors we think bode well for continued resumption in the overall market, back to closer to 4%, if not more.

Immigration will continue to be strong and positive. There's pent-up demand that's happened during the COVID period of time. And ultimately, when you look at penetration rates in Canada, we still sit at numbers below 100%, compared to the US at now over 130% by most indices. And we've always been tracking well to that. And so overall, size of the market continues to grow.

Against that backdrop, ARPU specifically, if you look at Canada for the last year and a bit, ARPUs have stagnated and slash declined. Overage has been one factor for us in the industry. The second has been roaming, obviously, with travel curtailed for both consumers and business. That shut off what is otherwise a $500 million business for us. And we've been very transparent about that.

So as travel restrictions ease and we start to see increases in both consumer and business, we expect that revenue to come back. And in fact, when you look at the second quarter, we're seeing a little bit of that coming back better than we expected. It'll be up to the second quarter, sorry, second half, in terms of how things play out and how much of that we'll see come back. But ultimately, it'll come back and then some when you capture the bigger side of the market as well, overall.

Overage I've talked about. And then the second piece is really usage. Usage is going to be the next big catalyst. And then much of the lockdown throughout the country over the last year and a bit, consumers and businesses have been relying on home Wi-Fi. And so when you look at usage on mobile, it generally has been flat to up slightly year on year. Each time we've seen the markets open up and people are out and about, we see usage surge back up to 40 to 50% year on year. combined with 5G, that'll be even more.

And so the use case for unlimited becomes even more apparent. And we'll continue to see good migrations to unlimited. When you look at ARPUs underlying -- that's I think a bit your question, when do we see underlying ARPUs move – it's really been two things happening in the market. One is unlimited has been very good for ARPU growth on balance.

We've had over the last several quarters, we would describe it as heightened promotional activity at the bottom end on the flanker brands. And as we see those using up, then we think there's an opportunity for ARPUs overall to start increasing in the second half of the year.

Dave: Great.

Joe: I think one way we frame this is we were probably the hardest hit, with respect to the pandemic, because of our exposure to roaming and a few other categories. A billion dollars of revenue pretty much evaporated for us. And we believe that the recovery will benefit us more strongly because of those recovering revenues as a whole.

You add that to the macro issues that Tony described, whether it's GDP growth, housing growth, immigration growth and the like, the demand for wireless services will continue to be very strong as we come out of COVID, given people's adoption and use has been greater than ever on the internet. Internet-on-the-go is really what we're selling.

Mastercard just did a survey of their customers and under the topic of revenge spending, as they called it, coming out of COVID, where will you spend your dollars if you have dollars? And we're pleased to see that getting a new smartphone was fourth on the list.

So it's relatively top-of-mind and we've seen just in our world we had the month of March where restrictions were lifted for about four weeks or so and we just saw the traffic just spike again, dramatically. And restrictions were partially lifted last week in Ontario – and Ontario, of course, the biggest market in Canada – but lifted to the point of 15% of retail traffic being left. Not exactly a massive reopening – the malls are still closed – but it's the High Street locations that are opened to a 15% capacity.

And we just did a review this morning, again, traffic was way up. So there's this pent-up demand that's there. You'll find the economic recovery 4 to 6% GDP growth is being postulated; and then reinforced by the roaming recovery and the other categories we talked about, we think we're going to have a strong trajectory coming out of the pandemic overall.

Dave: Well, thank you Joe. That actually kind of goes to the next question, which I know everyone's getting. But especially in this industry, I think there's a question as to whether the reopening is kind of a net headwind or a net tailwind, from a financial perspective, given that heightened activity leads to heightened smartphone sales and related promotions and expenses, also commission expenses, people coming back to the stores, more people in more stores. The comps are tougher. That's one half of it.

The other half of it is, obviously, more subs, more revenue. We've kind f evolved the business model a little bit from a digital standpoint. So what is the first thing investors should expect a Rogers to experience? Kind of like tougher expenses with better revenues to come, or some other thing?

Joe: Well, first of all, I think being open is far better than being closed. And when we have 5,000 points of distribution in Canada. I'll say that again, we have 5,000 places where you can buy our products, about half of them are company owned or controlled. The other half are third party.

Last Spring they all shut and pretty much ground to a halt. So we had to get really good at transacting without our stores open. We have this contrast inside our business. We know exactly what it takes to conduct our business. And for honest, a year ago we struggled. We struggled. We had spent 35 years building a store program. And on the digital front, our industry is largely immature.

Fast-forward to right now, we believe we have both muscles flexed. And we saw some evidence of that in the month of March when we were opening stores and digital was firing. Along the way we've built some incredible capabilities. We built Pro-on-the-Go. Pro-on-the-Go allows our people to bring the phone to you in your home, order online, deliver it to your home; order online, deliver it to the Bank of America Building and set it up for you.

The other service we created was curbside pickup. So order online and wait in your car, someone will come to your car and give you your phone. And then we can figure out a way to set you up if you need the help. A lot of people don't need help, etcetera. So these are all modalities that still insinuate us in the buying process, still make us valuable to the customer journey, but allow us to flex our cost and margin profile.

Some channels are 2 to 3X the cost of other channels. So in wireless, we are really pleased with our leading margin. We're sitting at 62, 63% margin. We fully intend on maintaining that margin; and we think there's a path to maintain that margin while we flex our strength in both physical and electronic channels; and therefore, drive the outcome that comes with that.

Maybe not exactly how you wanted me to answer the question, but I wanted to kind of give you a frame of where our heads are at overall. We think we can do both.

Dave: Tony, do you agree?

Tony: Absolutely. I mean let's be clear, the industry is predicated on investments that drive recurring revenue. That is the model. And so the fact that we see higher volumes that mean increase in set(?) investments and that can only be good.

And so as you look to more specifically our margins, over the course of the last two years, we've seen expansion in both the wireless and cable by considerable amount. And our intent is to post margins at the level that you see quarter to quarter, as we ramp up store costs ahead of consumer traffic and we see a slight variation in those markets. Put it in the category of slight, if any. But the intent is to continue with strong margin, as evidence of the growth and profitability.

Joe: _____ been happening under the scenes, under the carpets, Dave, is we've been working to rearchitect our channel approach and channel strategies, to keep the best of what we had and shed some costs along the way. And you yourself pointed out a few minutes ago, around equipment, subsidy, versus equipment financing, etcetera. There really is a need for restructure in place. And we're going to push really hard to maintain that new cost structure, because we think it's a winner.

Dave: Okay. Good. I think with the time we have left, I'm going to kind of talk bout two more topics. The first one is 5G, it's a very buzzy word, doesn't really mean a lot I think in the real world yet today. But at the same time, at least in the US, it's become very much a market _____. How do you convince the customer that you're the guy with the best network?

What is Rogers' strategy on the 5G front from a fundamental physical network standpoint versus a marketing standpoint?

Joe: Sure. Well, first of all, we led the way in terms of 5G rollout. We're ahead on 173 cities, or roughly 600 communities, a la government community point of view. And we had two factors going for us on that. One is, we were able to go to an all Ericsson 4G LTE Advanced capability that was software-ready for 5G. So we didn't have to rip out radios to go to 5G. We leveraged the power of what we had done around 4G LTE Advanced.

And secondly, we did very well in the 600-megahertz spectrum auction, therefore, we got very wide coverage very quickly, in terms of 5G. And you would have recalled we got 80% of the spectrum available to the large players in that auction. And so we said okay, great, let's go. Let's go. Our competitors have a heavier lift, in terms of technology partners and the like, etcetera.

But in terms of the economic mass of 5G, I think it's still early days when it comes to the consumer. When it comes to the consumer, really, it's becoming – it's more of a get ready and a marketing play, if you will. The consumer use cases aren't completely clear in terms of what will be material to consumers and we're really needing sort of the killer app that we're all looking for.

There will be a set of use cases. We have this very same debate around 3G and 4G. I remember very clearly in my mind. And because we were having conversations back then like who'd want to watch TV on their phone? Well, and here we are. And there aren't enough apps to really make the app ecosystem worthwhile on your phone. And here we are.

So I think it's a matter of time before the massive developer ecosystem will start to work on consumer applications and idea, whether they're in gaming or other areas. We'll see as they develop and as they go, capabilities, etcetera.

But on the B2B space, it's a bit of a different story. On the B2B front, we are already seeing opportunities for private networking opportunities. We won a private networking opportunity with a resource company. So think of this application of 5G where you can take a slice or a portion of your network and make it bespoke for a customer over a particular area.

And therefore, they don't have to go and build a proprietary network for themselves. We're leveraging the power of our network in a sort of customized fashion. And with that will come some applications that go with this. We think that's a big opportunity.

The next big opportunity, I guess you can call it a consumer opportunity is around fixed wireless. As we go and go after those 2 million households that don't have connectivity, fixed wireless is real and we'll create both a technology capability where the fiber economics fall down, and where it's perfectly great service and capability in a swath of Canada that has a certain population density, to serve them with fixed wireless. So that I think will be a real business. Already is a real business and will continue to grow.

The third area we talk about a lot in 5G is the fact that the dynamic spectrum, that management tools that come with 5G will allow us to get more bang for our buck, in terms of just good old-fashioned cost of deploying capacity. So capacity equals speed. The better we can leverage spectrum, use technologies that have come with 5G, like aggregation technologies, massive MiMO technologies, all these capabilities that allow you to kind of twin spectrum channels, even though they're not adjacent to each other, just will allow us to serve capacity and speed needs without having to spend more money on towers or spectrum in that process.

And then the one that – we're kind of trying to figure out where pivots to 5G is in IoT. We're already the largest IoT provider in Canada in the 4G applications, whether it's payment terminals or smart meters or tracking, trucks and transportation. That's all, that's been happening for a long time and we're the leader in that sector. And then we've placed some bets on certain industries, to kind of follow the path with them into 5G.

But 5G will not be sort of a singular and monolithic advantage. It will be a series of these four areas or so I talked about coming together to build a critical mass or capability. The other thing it'll do is eventually it will let us decommission our 3G network, and eventually our 4G network, eventually, down the road. And therefore, that will create cost synergy opportunities as well.

But I wish I could say I've got the killer app. I don't have it Dave. You know what it is, you can please let me know because Tony and I will make the products out of it.

Dave: No, no. I keep asking. I'm looking for it. If I could put some money into it I'll let you know. The last question I have…

Joe: The important thing with 5G and this gets talked about a lot is that 5G will bring new currencies, new currencies, whether it's latency, whether it's the accessibility to mobile edge or multi-edge computing. In other words, having storage and compute power close by in our network, etcetera.

One thing we have a resolve for is we have to do a better job as an industry of monetizing those currencies. In 4G we gave away a lot of the other currencies. We kept the one around tonnage, but currency around location in other areas, we never monetized. I think we're smarter as an industry this time around. And you're going to see partnerships pop up, partnerships with web scale platforms; partnerships with application providers in some of these verticals, where we have different revenue streams besides just how much data do you want, where you insinuate into the transaction flow, and where there's a new type of B2B type of opportunity in those areas.

Dave: I should have known that the 5G question was a 10-minute conversation. Because I wanted to get to the asset sale conversation. So what we're going to do is we're going to have that conversation offline. And then, if the investors who are on the call want to talk about it, they can call me later to have that conversation about the Js, about the towers, about everything else.

Joe and Tony, guys, thank you so much. You guys are always gentlemen and we really appreciate you being part of this conference this year again. And I wish you well and hopeful success and take care.

Joe: Thanks David. Thanks for always having great question and engendering a great dialog. I wish we had more time and I said, look forward to doing it again in person in front of an audience as soon as we can.

Dave: Very soon. Thank you guys, cheers.

Tony: Thanks David.

END