

July 15, 2020

VIA Intervention Comment Form

Mr. Claude Doucet
Secretary General
Canadian Radio-television and
Telecommunications Commission
Ottawa, Ontario
K1A 0N2

Dear Mr. Doucet,

Subject: Telecom Notice of Consultation CRTC 2019-57: Final Comments

1. The Canadian Communication Systems Alliance (“CCSA”) submits these Final Comments Pursuant to Telecom Notice of Consultation CRTC 2019-57, Review of mobile wireless services.
2. These Final Comments represent the views of CCSA members with the exception of Tbaytel which will be filing a submission directly with the Commission.
3. CCSA represents more than 110 communications companies operating in Canada that each own transmission facilities to provide broadcasting and telecommunications services in communities from sea to sea to sea.
4. In large part, the serving areas of those companies are rural or remote and CCSA members are often the only available alternative to incumbent service providers.

Executive Summary

5. Currently, the majority of CCSA member companies are unable to offer any form of mobile wireless service to customers in the communities they serve.
6. Their primary interests in this matter are to be able to offer “quad play” services to their customers and to deliver a high-quality experience in their customers’ use of mobile devices such as smartphones and tablets.
7. To do those things, they need access to wholesale mobile wireless connectivity which is of sufficient capacity and reliability to support a quality customer experience with such

devices both in the home and as those devices travel with the customers.

8. As CCSA noted in its November 22, 2019 Further Comments, its fundamental recommendations and objectives in this proceeding are as follows:

CCSA submits the Commission should implement a framework which 1) encourages competitive entry by Full MVNOs by establishing that they are able to purchase RAN access from the MNOs at just and reasonable tariffed wholesale rates and terms; and 2) authorizes those Full MVNOs to re-sell to other providers. Such a competitive framework would:

- a) provide CCSA's larger members the opportunity to offer their communities increased choice in mobile services as Full MVNOs ; and
 - b) provide other CCSA members who lack the resources to turn up a Full MVNO operation to offer their communities a new "lighter" MVNO option, based on the purchase of wholesale services from new Full MVNOs
9. The national MNOs have been slow to invest in delivery of broadband communications services to rural areas because the return on investment is simply too poor and too slow. There is no reason to think that the national MNOs' investment approach will change.
 10. To the contrary, whenever challenged with new regulated reductions of competitive barriers, the first thing those incumbents do is to scale back their promises of future rural investment.
 11. The privately-held independent operators that CCSA represents have a different investment approach. Generally, they are not driven by the demands of public and institutional investors.
 12. Generally, the independent operators' focus is much more squarely on a mission of providing attractive, competitive communications services to the communities in which they live and work. In many cases, profit *per se* is not their primary motive. Often, their

ROI calculation is more about whether a project is economically achievable and sustainable than on maximization of profit, at least in the short-term.

13. Those independent operators are driven by a desire to bring high-quality, modern communications services to their communities. To do that with mobile wireless service, they need partners who can provide them with RAN access and assist them with other needed facilities and services needed to turn up mobile service.
14. Based on the evidence placed before the Commission at the public hearing of this matter, this proceeding has demonstrated that implementation of a mandated MVNO framework will encourage entry by the very sorts of partners that those independent operators need.
15. This proceeding has demonstrated that, with such partnerships in place, it is economically and technically possible for those independent operators to offer mobile wireless services in their local markets and that “no market is too small or too remote”.
16. This proceeding has demonstrated that a model which CCSA’s larger members have endorsed and wish to pursue – evolution from service-based to facilities-based delivery of mobile wireless service – is a viable proposition.
17. This proceeding has adduced evidence from many parties to the effect that service-based competition can be a powerful engine for innovation and generation of a broad variety of service packages, features and pricing options tailored to market niches. Such niches include the requirements of unique demographics and local needs that characterize smaller and rural markets in various regions throughout this country.
18. Finally, the factors described above indicate the existence of an important opportunity for independent operators to generate new revenues from the sale of competitive mobile wireless services to residents and businesses in their service areas. Those revenues will support investment in both fibre transport and in local mobile wireless facilities.
19. Mobile wireless is the technology of the future: it will soon be the delivery medium of

choice for all content and applications, regardless of where the customer lives. For that reason and for all of the reasons just enumerated, a properly designed MVNO framework is a critically important tool for closing the “digital divide” in this country.

20. CCSA urges the Commission to move forward quickly on the basis of its preliminary view that MVNO access should be mandated
21. CCSA thanks the Commission for the opportunity to provide these comments.

Sincerely,



Christopher J. Edwards
Vice-President, Regulatory Affairs

CANADIAN COMMUNICATION SYSTEMS ALLIANCE INC.

**Before the Canadian Radio-television and
Telecommunications Commission**

Telecom Notice of Consultation CRTC 2019-57

Review of mobile wireless services

Final Comments

July 15, 2020

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Introduction

1. The Canadian Communication Systems Alliance (CCSA) files these Final Comments pursuant to Telecom Notice of Consultation CRTC 2019-57, Review of mobile wireless services.
2. CCSA represents more than 110 communications companies operating in Canada that each own transmission facilities to provide broadcasting and telecommunications services in communities from sea to sea to sea.
3. In large part, the serving areas of those companies are rural or remote and CCSA members are often the only available alternative to incumbent service providers.
4. In the material that follows, CCSA will quote from the transcripts of appearances by a number of newer, smaller and independent providers. Obviously, that is partly because their views, in many respects, support our own.
5. However, it is also worth remarking that it is those players – the emerging and experimenting disruptors – who have new and interesting ideas to put on the table. Rather than simply defending the *status quo* and their own vested interests – as do the MNOs – these disruptors offer valuable commentary about new models for delivery of innovative and competitive telecommunications services to Canadians for the benefit of Canadians.
6. We think that such commentary points to real, achievable solutions and, therefore, deserves careful attention.

CCSA Member Objectives

7. Currently, the majority of CCSA member companies are unable to offer any form of mobile wireless service to customers in the communities they serve.

8. Their primary interests in this matter are to be able to offer “quad play” services to their customers and to deliver a high-quality experience in their customers’ use of mobile devices such as smartphones and tablets.
9. To do those things, they need access to wholesale mobile wireless connectivity which is of sufficient capacity and reliability to support a quality customer experience with such devices both in the home and as those devices travel with the customers.
10. As CCSA noted in its November 22, 2019 Further Comments, its fundamental recommendations and objectives are as follows:

CCSA submits the Commission should implement a framework which 1) encourages competitive entry by Full MVNOs by establishing that they are able to purchase RAN access from the MNOs at just and reasonable tariffed wholesale rates and terms; and 2) authorizes those Full MVNOs to re-sell to other providers. Such a competitive framework would:

- a. provide CCSA’s larger members the opportunity to offer their communities increased choice in mobile services as Full MVNOs ; and
 - b. provide other CCSA members who lack the resources to turn up a Full MVNO operation to offer their communities a new “lighter” MVNO option, based on the purchase of wholesale services from new Full MVNOs.¹
11. At the public hearing of this matter, the ITPA presented a couple of very useful examples of the challenges to which the independent telecommunications distributors are trying to respond:

10708 MR. PETRUK: So with access to cellular service, it does more than just provide us the ability to add a service to our basket. It actually gives us the ability to extend our services that we currently provide into

¹ CCSA, “Subject: Telecom Notice of Consultation CRTC 2019-57: Call for Further Comments – Review of Mobile services”, November 22, 2019 at para. 19.

more innovative ways of providing those services in general.

10709 As a great example, without cellular service, customers who subscribe to our IPTV service are not able to take their shows with them when they travel on vacation, because by the way the rules are set up for copyright on broadcast, you can't have someone outside of your network accessing content. So by access to an MVNO right there, automatically, now it can offer like for like with the large three players, which helps out -- that's just IPTV.

10710 To take it even a step further, we have about 155 greenhouse growers and operators within a 35-kilometre radius of our operating territory. All of them are in rural sections of Essex County. In more recent times, access to affordable services or packages that makes sense for them and for their workers are not something that currently exist.

10711 In light of that fact, I have begun a process for a nomadic Voice over IP service to enable the 5,000 seasonal workers access to telephone, just simple telephone service in our area. The problem that we run into with that is that they end up going to wherever there is free public Wi-Fi and basically loitering, and the towns that these seasonal workers are in are getting frustrated because they're inundating existing businesses.

10712 So by being able to offer cellular service, or MVNO access in general ---

10713 THE VICE-CHAIRPERSON: Right.

10714 MR. PETRUK: --- there's a service already that I can provide that I could find a way to meet the needs of these 5,000 employees that are helping grow Canada's economy. And that's just the tip of the iceberg.

10715 Not to mention when you get into in and out [*sic* – Internet] of things and telematics, there's combines that drive themselves. And these

are providers, these are greenhouse growers and operators with 700 acres of greenhouses that are coming to us because we're their provider for data that want us to help round out their services, but we're essentially cut short because I cannot round out their services. So I can't provide a layer-3 application that floats from my network to the cellular network to their services that they need to operate their businesses.²

12. Those are precisely the types of challenges that face CCSA members in all parts of Canada. Without any mobile wireless capability, they cannot offer fully competitive products to their retail residential customers and they are limited in the extent to which they can assist with the attraction and growth of small and medium-sized businesses in their communities.
13. Small-town, rural and remote communities throughout Canada are desperate for the full suite of connectivity they need to retain and attract local businesses and to ensure their communities can thrive.
14. CCSA members, given access to the MNOs' mobile networks, are ideally placed to help. They want to do that.

Building Rural Network Facilities

Relevance of 5G Technology

15. During CCSA's appearance at the public hearing of this matter, the Chair sought to clarify the relevance of 5G technology to the operations of CCSA members. The Chair asked:

7857 THE CHAIRPERSON: But you'd agree with me that the 5G plans are still at a relatively early stage, and you've proposed a network evolution as between them and how they together will provide a new

² Transcript, Vol. 8 at 10708.

ubiquitous form of broadband certainly isn't clear to me at least. But you've suggested that we have a tariff establishing terms and conditions for the MVNO.

7858 How would -- how do we deal with 5G when we don't even know what it looks like yet, or the costs are?³

16. CCSA notes a subsequent exchange on the same subject which the Chair had with representatives from Data On Tap, as follows:

12036 THE CHAIRPERSON: Thank you. A couple of last questions from me, or one question, one sort of invitation for you to describe a little more how you'd roll out. The question is what about 5G? Is that in access immediately? Well one, do you think the existing tariffs require it; and two, do you need it?

12037 MR. AKSTINAS: I'd say initially we don't really care about it. I don't think it matters for anyone at the moment. If you look closely at the announcements of 5G and when you ask around in these panels, they talk about the slow rollout adoption curves, et cetera. I think if you were talking affordability of services, the 5G will matter, you know, in 3-5 years for these segments at the soonest, and if you take into consideration the average usage of 2.5 gigabytes in Canada on the 5G, it will take I don't know how many seconds to reach that. So it's not really about 5G, and really consumers do not urge for speed or anything like that.

12038 We do see a big utility for 5G, obviously. We do agree that brings economical benefits. Maybe they're overestimated, and you know, we laugh a bit about the 5G race. And you know, you don't always win the race by arriving there fastest with 10 percent adoption. All -- what we want is more people to start using services now, and that is actually a

³ Transcript, Vol. 5 at 7857.

more sensible path to 5G. [Emphasis added]⁴

17. Data On Tap’s responses accurately reflect CCSA’s attitude toward the relevance of 5G technology at this time. The point which CCSA made at the public hearing was that, at the time when 5G does become broadly implemented, its members do not want to be foreclosed from wholesale access to 5G networks.
18. Given CCSA members’ primary objectives, as set out in the section above, what those members care about today is:
 - 1) the ability to offer mobile wireless service – period – to their customers; and
 - 2) wholesale access to network capacity which is sufficient to support a high quality user experience with the mobile devices which most Canadians now possess.
19. Like Data On Tap, what CCSA members “want is more people to start using services now” and CCSA agrees that “that is actually a more sensible path to 5G”.
20. So, in terms of definition of MNO wholesale tariffs under which CCSA members could gain access to the MNOs’ RANs to support competitive entry in the mobile wireless sector, the question of 5G is not a key issue for CCSA members at this time.
21. Having said that, CCSA has previously made the point that the roll-out of 5G technology demands an underlying network of fibre facilities. To drive 5G out from Canada’s major urban centres, transport fibre, in particular, must be extended to reach and interconnect areas outside the cities.
22. CCSA members are building transport fibre as quickly as they can. For example, in their responses to a recent survey by CCSA, Access Communications, Cable Cable and Westman Communications all reported recent completion of transport fibre builds between five and fifty-five kilometres. Those builds connected a large number of smaller,

⁴ Transcript, Vol. 8 at 12036.

rural communities to fibre transport facilities for the first time.

23. Those are but a few examples of what CCSA members are doing to drive fibre further out to serve small towns and rural areas.
24. The business case for such builds is always challenging. As CCSA noted in a submission in response to Telecom Notice of Consultation CRTC 2017-112 - *Development of the Commission's broadband funding regime*, for a small, independent TSP, the ROI period for such a build can be as long as 12 years.⁵
25. There can be no doubt that the availability of new mobile wireless revenues to the independent providers that CCSA represents would greatly improve their ability to undertake such projects and their ability to secure project financing.
26. In that way, implementation of a mandated MVNO framework can only encourage investment in the terrestrial fibre facilities upon which 5G roll-out to non-urban markets will ultimately depend.

The Independent Perspective

27. As Mr. Israel put in in CIPPIC and OpenMedia's hearing appearance:

12883 So I actually come from Prince Rupert in B.C.'s north coast.

12884 It is the home to North America's third largest port. Yet, my home is four minutes away from downtown and Prince Rupert, and I only get one bar of signal in my home, which also doubles as my office.

12885 And for decades, we have been talking about network investments in rural communities in more communities, but the incumbents still have

⁵ CCSA/ITPA, "Telecom Notice of Consultation CRTC 2017-112 - Development of the Commission's broadband funding regime – Final Comments", December 18, 2017 at paras. 43-44.

not been able, or have not been willing, to make those necessary investments.

12886 So ultimately, it's time to try something new. [Emphasis added]⁶

28. Against those comments, we see the threats of the MNOs to actually reduce their pace of investment in rural networks if a mandated MVNO regime should be implemented.⁷
29. For many of the communities that CCSA members serve, the wireless services provided by the national incumbents quite simply are not meeting community needs. CCSA sees a vital role for such communities, working with their local telecommunications providers, in building the facilities and delivering the communications services those communities desperately need.
30. CCSA envisions that, in many cases, such initiatives may well be driven by the communities themselves through the use of public-private partnerships involving the expertise and resources of local communications service providers.
31. In CCSA's view, under a mandated MVNO framework, a number of factors would support such initiatives.

MVNO/MVNE Partnerships

32. As CCSA has emphasized in its prior submissions in this proceeding, a key to its members' ability to offer mobile wireless services to their communities is an increased availability of willing facilities-based partners from whom they can purchase the facilities and services they need to enter as competitors in the sector. The national MNOs will not take on that role.

⁶ Transcript, Vol. 9 at 12883.

⁷ See, e.g. Shruti Shekar, "Bell, Telus threatening CRTC on investment cuts is part of the 'playbook,' experts say": Yahoo Finance Canada, February 21, 2020, accessed at <https://ca.finance.yahoo.com/news/bell-telus-threatening-crtc-on-investment-cuts-is-part-of-the-playbook-experts-say-200603490.html>, accessed on March 19, 2020.

33. During the public hearing of this matter, a number of parties indicated their desire and intention to act as such partners.
34. Cogeco responded to the chair's questions on this point as follows:

3123 THE CHAIRPERSON: In your proposal would -- you may have answered this in your submissions, and if you did, I apologise [*sic*] -- are you proposing that you would be permitted to sell wholesale RAN access to others?

3124 MS. LEGPAGE: This is not a priority for us, but definitely if this would be granted it would be nice to have because we believe that we would be able to help other smaller HMNOs to launch more quickly into the market. But one of the things that we feel is necessary is for us to have the operational flexibility to be able to use third parties such as example Syniverse for international roaming and be able to interconnect with the partner MNO.

3125 THE CHAIRPERSON: And if it were a broader MVNO, not your model, would you have the same view about that it would be desirable for MVNOs to be able to resell access?

3126 MS. LEPAGE: Well, since we would have the platforms, and, again, be able to help other MVNOs in that case to launch more quickly in the market, yes, we believe that this could be nice to have as well.
[Emphasis added]⁸

35. Ice Wireless, a company that has intimate familiarity with the challenges of setting up mobile service as an independent WSP, had this to say:

8844 THE VICE-CHAIRPERSON: Right. But under your model, what

⁸ Transcript, Vol. 2 at 3123.

do you think the entry would look like? How many MVNOs would want to get into the market? Over what timeframe?

8845 MR. BISHAY: Yeah. So in our model, we want to open it up for everybody, okay, and let market power dictate who succeeds, who doesn't. We -- because we're good at wholesaling and we've developed these platforms, we actually see ourselves as an MVNE, enabling other MVNOs, because not every MVNO would be interested in going negotiating interconnects with the incumbents, doing local number portability, AS2 interconnections, all that stuff takes years, right?

8846 These guys are good at marketing, they are good at an application linear that targets a demographic, and we could enable that for them. So if they want to go build their own platform, great. If we could do it for them, great, it would just add on another layer for our wireline network that's already in place. [Emphasis added]⁹

36. Ice Wireless added:

8987 So if I was -- if let's say the floodgates opened up with MVNOs and I had five MVNOs on my wireless network I'd be the happiest man because I don't have to support them. All I have to do is just focus on building the network, which is literally 10 percent now of the cost in a way, and I'm going to make a lot more margin without all the headache in a way.¹⁰

37. Data On Tap, operator of the dotmobile service, characterized its intentions like this:

11933 MR. AKSTINAS: Can I just add to this? I think the presentation from that group also mentions, you know, a hundred million dollar investment. I also believe it's a way of creating another barrier of entry,

⁹ Transcript, Vol. 6 at 8844.

¹⁰ Transcript, Vol. 6 at 8987.

so you know, enter and then the close the door for everyone else that's certainly not our approach.

11934 But I do believe that full MVNOs can evolve into MVNEs, and we certainly explored that in our discussions with Canadian MNOs, and I do believe that it will be three or four MVNO enablers or aggregators. And it does make sense for Canadian MNOs to -- if it will 10-15 MVNOs applying for the access to aggregate them in certain way, and, you know, deploy them, and implement them efficiently through some sort of a gate or some sort of aggregator or enabler. [Emphasis added]¹¹

38. Specifically with respect to the impact of MVNOs on investment in rural markets, Data On Tap had this to say:

12077 COMMISSIONER LEVY: There are those who say that full MVNOs will do nothing to spread better service to rural and remote areas, and that the chances are that any MVNOs will simply cherry pick those markets that have the densest group of potential customers. What do you say to that?

12078 MR. BAUMAN: I think this relates to this question and your previous one; we've heard from different groups who have talked about the desire for a local community or something more related to these remote areas, that they would like to create services designed to serve their own needs.

12079 So the barrier to entry still exists for being an MVNO. But that's not to say that it requires somebody who is operating out of a city to start an MVNO and then branch out to try to find people in rural areas who need their services. I would imagine that where those needs are, MVNOs

¹¹ Transcript, Vol. 8 at 11933.

would pop up to serve them. [Emphasis added]¹²

39. CIPPIC and OpenMedia, responding to questions about network sharing, duplication and efficiency, offered the following:

12865 COMMISSIONER BARIN: Well, so I see. So you believe that there actually might be benefits in the sense that there would be a tendency to share networks or network costs?

12866 MR. SAMAYOA FIGUEROA: That's right, and we are already seeing that. There are more network sharing agreements to rollout the 5G implementation, and we think that this will actually be beneficial for companies. Especialy when we look at communities that my [sic] have a local cable company or a local Internet company that would actually be willing, or even a local municipality that would be willing to invest in local networks that can connect to the incumbents', this would actually help facilitate and prevent network duplication. [Emphasis added]¹³

40. CIPPIC and OpenMedia also emphasized the critical importance of making affordable spectrum available to competitive entrants:

12880 But aside from that, one of our additional proposals that we didn't elaborate in great depth here is that we are also saying that the Commission should recognize, in principle, wholesale access to spectrum.

12881 And we think that that -- if you recognize that -- the need for that in principle, that will allow a lot of municipalities and other regional type groups in rural to develop their own wireless footprints should the national providers decide to not. [Emphasis added]¹⁴

¹² Transcript, Vol. 9 at 12077.

¹³ Transcript, Vol. 9 at 12865.

¹⁴ Transcript, Vol. 9 at 12880.

41. In short, given a mandated MVNO framework, CCSA is convinced that opportunities will arise to work with a variety of new partners to introduce competitive mobile wireless service in the communities its members serve.

No Market is Too Small

42. In its comments quoted above, Data On Tap noted: “the presentation from that group also mentions, you know, a hundred million dollar investment. I also believe it's a way of creating another barrier of entry.”

43. CCSA agrees that a focus on the cost of building a new, national mobile network as requiring that scale of capital investment does amount to artificial creation of a new barrier to entry and is at odds with the experience of independent operators who already serve more regional markets.

44. SSi Micro, for example, said:

12320 A point to take away is that an independent wireless network operator can open new markets and can offer a competitive alternative in other markets, even in Canada's most remote and sparsely populated regions. We're the living proof of that.

12321 To be clear, we firmly believe that no market is too small, or too remote, to benefit from facilities-based competition. [Emphasis added]¹⁵

45. SSi Micro continued:

12494 So as we're trying to get across, we believe the best way to go forward is to focus on the upstream backbone facilities and to focus on passive infrastructure; in other words, the gateway facilities, the towers; spectrum is also a passive infrastructure, I might all, to allow local

¹⁵ Transcript, Vol. 9 at 12320.

wireless carriers to build their own local wireless networks. It's actually quite economically achievable if you have the other pieces in place.

[Emphasis added]¹⁶

46. SSi Micro speaks from its experience as a successful, competitive, independent WSP which serves the most challenging markets in Canada.
47. From those remarks, CCSA concludes that it is, in fact, possible for even the smaller, independent TSPs that CCSA represents to do the things needed to offer competitive wireless mobile service in their service areas.

Importance of the Service-Based Model

48. As part of CCSA's own presentation at the public hearing, Ms. Carmela Haines of Access Communications Cooperative said:

7809 We want to enter the market as quickly as possible for our customers. Therefore, we need the ability to launch, initially, as a light or partial MVNO, to gain experience and to move towards being a full MVNO. Being a full MVNO will provide us with the ability to operate with the largest degree of autonomy with responsibility for all aspects of the operations of our network except for the RAN. That is, after all, how we successfully launched wired telephony service; initially light and then full service. As a result, we provided Saskatchewan consumers with much needed choice.¹⁷

49. While Ms. Haines' comments were intended primarily to address the importance of getting to market quickly with a service-based offering, they also illustrate a viable model for the introduction of effective competition in local or regional markets.

¹⁶ Transcript, Vol. 9 at 12494.

¹⁷ Transcript, Vol. 5 at 7809.

50. Specifically, that model is predicated, in part, on securing and using new revenues from an initial service-based offering as a basis for gradual investment in the creation of a full facilities-based capability. As Ms. Haines noted, that is precisely what Access Communications did in its implementation of wired telephony.
51. That model for evolution from a service-based entry strategy to creation of a facilities-based capability exists and has been proven in the field today.
52. A good example of that is Iristel's experience as described in Ice Wireless' presentation at the public hearing:

8736 Iristel is in a unique situation in Canada as a company that is both heavily invested in services-based competition and that has made substantial investment in facilities-based mobile wireless network. And I believe we're the only regional MNO on this record that is advocating for full MVNO access.

8737 We use revenue from service-based solutions as a source of capital to fund our expenditures related to wireless network buildouts. And we well understand the government's concern with maintaining an acceptable level of investment in facilities-based networks. In our case, if we're able to launch a national MVNO, some of those revenues would go to expanding our networks in the Arctic, in Eastern Quebec and in Newfoundland where more facilities-based networks are needed. [Emphasis added]¹⁸

53. Further, as Mr. Bishay explained in the question and answer session following Ice Wireless' presentation:

8858 Just to go back on the previous one, if I can add one thing, just from a historical perspective and a living proof, when Iristel started, we

¹⁸ Transcript, Vol. 6 at 8736.

actually were not a CLEC in Canada. We were reselling. At the time it was Groupe Telecom, and we were acquiring PRI lines and building that network. And naturally, the revenue that we generated actually helped us build the network facility, so that we become these CLEC type one underlying carrier that serves other CLECs today as well. [Emphasis added]¹⁹

54. All of which is to say that the model which Access Communications seeks to follow is a proven method for promoting timely competitive entry for the benefit of consumers and for promoting, effective facilities investment in the longer term.
55. To sum up, given a supportive regulatory framework:
- CCSA members will find the partners they need to help them introduce competitive mobile wireless service in the communities they serve;
 - no market is too small and it is, in fact, possible for even the independent TSPs that CCSA represents to do the things needed to offer competitive wireless mobile service in their service areas; and
 - the model which some CCSA members seek for evolution from a service-based entry strategy to creation of a facilities-based capability exists and has been proven in the field today.

Service-Based Competition as a Source of Innovation

56. Another other important aspect of the service-based entry model is its promotion of innovation.
57. Mr. Stein, speaking for CNOC at the hearing, observed the great similarity among the existing retail offerings of the MNOs and the resulting opportunity for innovation in the

¹⁹ Transcript, Vol. 6 at 8858.

mobile sector:

5073 It needs to be stated again. The opportunity to innovate in this sector is huge when the Big 3 simply do the same thing as each other.

5074 I mean, even the big 2019 innovation, “Let’s decide, 2019, let’s offer unlimited. Let’s also throttle when it gets past a certain point.

Within a couple of days, let’s all individually, and without provocation of the others, let’s all launch virtually the exact same thing at virtually the exact same price after a decade plus of not doing it.”

5075 It just -- they’re all doing the same thing. That makes it a very ripe market for an MVNO to come in and innovate with something very different. [Emphasis added]²⁰

58. Mr. Burns, speaking for TekSavvy at the hearing and having cited numerous examples of niche services created by MVNOs who operate as “pioneers actually, kind of laboratories”²¹ concluded: “So, I think in terms of services-based competition, you’ll just see a much greater variety of innovation, a much greater spread.”

59. In a similar vein, at the public hearing, the Internet Society Canada Chapter described the mechanics of innovation as follows:

8528 The introduction of a mandated framework for full MVNO access is not simply about lowering prices for wireless services. It is an error to believe that MVNOs will offer the same thing as the incumbents, in a different box but cheaper. The value MVNOs provide to Canadians comes not from simply lowering prices, but rather from creating new, innovative services that target under or unserved market niches that are not being served by the existing players.

8529 Take for example a potential MVNO who signs wholesale

²⁰ Transcript, Vol. 3 at 5073.

²¹ Transcript, Vol. 4 at 6146.

agreements with multiple host networks. They could create a service offering which, in real time, picks the best network connection based on quality from multiple MNO host partners and public Wi-Fi access points. The same MVNO could also offer a seamless global roaming experience, allowing customers to pay a single price for service regardless of where they roam. On top of all this they could then integrate enhanced calling features, digital privacy offerings, network integration connections, and more.

8530 This is the empowerment created when we separate service delivery from the dependency on facilities. We create the ability for innovators to deploy fully virtualized communications services which are entirely distinct from the underlying facilities-based carrier. [Emphasis added]²²

60. That is fundamentally the same point made by Mr. Noss of TuCows in his characterization of telecommunications facilities as “infrastructure” and his detachment of competitive activity – which should be about “price and service” rather than “speed and coverage”²³ – from considerations about funding the underlying infrastructure.
61. We note emerging examples of such services in the form of Data On Tap’s dotmobile service and Sugar Mobile’s planned launch, in partnership with TextPlus, of “a Wi-Fi-first app-based VoIP service that already has over 100 million global installs and over 400,000 active users in Canada, and millions in the U.S.”²⁴
62. We note, as well, that such service-based competition is relevant to the matter of how service can be extended, in economically viable ways, to Canadian consumers and businesses in rural and remote areas.
63. To summarize, the current state of competition in Canada’s mobile wireless sector, as Mr.

²² Transcript, Vol. 6 at 8528.

²³ Transcript, Vol. 2 at 3516.

²⁴ Transcript, Vol. 6 at 8717.

Stein put it, has created “a very ripe market for an MVNO to come in and innovate with something very different”.

64. In that environment, introduction of a mandated MVNO framework has the potential to unlock innovation in both the nature and the pricing of service offerings available to Canadian residential and business customers.
65. Importantly, from the point of view of Canada’s independent TSPs who serve rural and remote markets, entry as providers – at least initially – under a service-based model would unlock the ability of those local providers to work with the communities they serve to deliver mobile wireless products designed to respond to the needs of those communities.
66. Some such providers would continue to base their products on a service-based model for the foreseeable future. Others would, over time, graduate to a facilities-based model by investing in the facilities required, other than spectrum and the RAN itself, to deliver their own unique and differentiated mobile wireless services.
67. In either case, Canadian residential and business customers stand to benefit from the availability of both new products and packages and new pricing alternatives for such products.

Conclusion

68. As CIPPIC/Openmedia’s comments quoted above indicate, the major MNOs “have not been able, or have not been willing’ to make the investments needed to deliver to rural communities the same levels of service enjoyed by Canadians in the major urban centres.
69. Naturally, the MNOs’ investment decisions are driven by ROI calculations. While a small company like Cable Cable might be willing to undertake a major building project with a 12-year ROI period, the major public companies simply cannot do that. As CARTT reported in 2017, a national incumbent’s response to the Cable Cable example was:

If someone came to a meeting of ours and proposed something like that, even anything further than five years for payback, they'd be laughed out of the room – or fired.²⁵

70. The inevitable result of that approach is under-investment – or a lag in investment – in network facilities for small-town, rural and remote communities throughout Canada. The projects in low population-density areas inevitably get low priority. The result is that Mr. Israel gets only one bar of service when he is only four minutes' drive away from Prince Rupert's downtown core.
71. There is no reason to think that the national MNOs' investment approach will change. To the contrary, whenever challenged with new regulated reductions of competitive barriers, the first thing those incumbents do is to scale back their promises of future rural investment.
72. The privately-held independent operators that CCSA represents have a different investment approach. Generally, they are not driven by the demands of public and institutional investors.
73. Generally, the independent operators' focus is much more squarely on a mission of providing attractive, competitive communications services to the communities in which they live and work. In many cases, profit *per se* is not their primary motive. Often, their ROI calculation is more about whether a project is economically achievable and sustainable than on maximization of profit, at least in the short-term.
74. Those independent operators are driven by a desire to bring high-quality, modern communications services to their communities. To do that with mobile wireless service, they need partners who can provide them with RAN access and assist them with other needed facilities and services needed to turn up mobile service.

²⁵ CARTT.ca article, "THE INDEPENDENTS: Confounding commissioners (and others) for over 30 years", June 1, 2017, accessed at <https://cartt.ca/article/independents-confounding-commissioners-and-others-over-30-years> accessed on December 15, 2017.

75. This proceeding has demonstrated that implementation of a mandated MVNO framework will encourage entry by the very sorts of partners that those independent operators need.
76. This proceeding has demonstrated that, with such partnerships in place, it is economically and technically possible for those independent operators to offer mobile wireless services in their local markets and that “no market is too small or too remote”.
77. This proceeding has demonstrated that a model which CCSA’s larger members have endorsed and wish to pursue – evolution from service-based to facilities-based delivery of mobile wireless service – is a viable proposition.
78. This proceeding has adduced evidence from many parties to the effect that service-based competition can be a powerful engine for innovation and generation of a broad variety of service packages, features and pricing options tailored to market niches. Such niches include the requirements of unique demographics and local needs that characterize smaller and rural markets in various regions throughout this country.
79. Finally, the factors described above indicate the existence of an important opportunity for independent operators to generate new revenues from the sale of competitive mobile wireless services to residents and businesses in their service areas. Those revenues will support investment in both fibre transport and in local mobile wireless facilities.
80. Mobile wireless is the technology of the future: it will soon be the delivery medium of choice for all content and applications, regardless of where the customer lives. For that reason and for all of the reasons just enumerated, a properly designed MVNO framework is a critically important tool for closing the “digital divide” in this country.
81. CCSA urges the Commission to move forward quickly on the basis of its preliminary view that MVNO access should be mandated and thanks the Commission for the opportunity to make these comments.

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