



8 September 2017

Claude Doucet
Secretary General (Acting)
Canadian Radio-Television and Telecommunications Commission
Ottawa, ON K1A 0N2

Dear Mr. Doucet,

Re: Telecom Notice of Consultation CRTC 2017-259, *Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service*, CRTC File No.: [1011-NOC2017-0259](#) – Intervention of OpenMedia Engagement Network (OpenMedia)

1. In accordance with Telecom Notice of Consultation CRTC 2017-259, and with section 26 of the Canadian Radio-television and Telecommunications Commission *Rules of Practice and Procedure*, OpenMedia Engagement Network (OpenMedia) is pleased to submit its intervention to the above-referenced proceeding, *Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service*. OpenMedia wishes to be considered an intervener in this proceeding, and requests to appear at any future public hearing that may occur.
2. In this intervention, OpenMedia will outline its positions in broad strokes, and reserve more detailed comments for later stages in this proceeding. The Commission has recognized and accepted this form of participation in previous proceedings, such as in Telecom Notice of Consultation 2013-551, *Review of wholesale services and associated policies*.¹
3. At the outset, OpenMedia would like to make it clear to the Commission that the root problem giving rise to the current situation Canadian face in terms of affordability cannot be solved by WiFi-based MVNOs alone. Mandated wholesale wireless access for all manner of MVNOs is what will truly bring much needed competition, innovation, investment, and affordable choice to Canadians in their mobile wireless services. At this stage, however, OpenMedia will restrict its submission to the context of WiFi-based MVNOs, as circumscribed in the Notice of Consultation.
4. OpenMedia has also enclosed with this intervention over 8,000 individual submissions from engaged citizens across Canada,² submitted through an online tool hosted at [lowermycellbill.ca](#). The vast majority of individuals wrote to call upon the Commission to open Canada's mobile wireless networks to competition and innovative new offerings that would contribute to telecommunications affordability throughout the country. Specifically, they ask the Commission to allow WiFi-based mobile virtual network operators (MVNOs) to access incumbent mobile wireless networks at fair rates, for the sake of all those who are suffering from punitively high cell phone

¹ See Intervention of OpenMedia (15 October 2013), including 25,797 individual submissions; and Reply of OpenMedia (24 October 2014)

² Please note that throughout this intervention and subsequent stages of this proceeding, OpenMedia uses the term "citizen" interchangeably with Internet user/subscriber, potential user/subscriber, or "person who resides in Canada", regardless of formal citizenship status.

bills—and of all those who cannot afford mobile wireless or Internet services at all, such as the approximately one third of people among Canada’s lowest income quintile.³

5. Please note that the online commenting tool at lowermycellbill.ca provided an open text field that allowed users to write and edit their respective submissions before sending them, an option that many availed themselves of. The Commission should consider each user’s submission as a unique intervention in its own right, and accordingly attribute it with appropriate weight.
6. For example, Bob G. from Waterloo, ON, wrote:

Canada presently has some of the highest cellphone bills in the world. The oligopoly that is the collection of wireless providers have no incentive to lower those rates at this point.

I believe that we have three alternatives –

(1) to maintain the oligopoly and have the CRTC intervene to set realistic limits on what the companies can charge. These limits should not be set by the wireless companies and should take into account the wireless rates in other jurisdictions around the world.

(2) Allow for greater competition by opening the Canadian market to foreign wireless companies. The CRTC would still be required to oversee the market. I believe that a few years of competition from outside the oligopoly could make a significant amount of difference to the overall cost of wireless.

(3) Return the wireless spectrum to the control of the Federal Government and declare wireless communication to be a public utility like water and electricity. Set controls and pricing as one does with other utilities. If the wireless companies threaten to leave the market, let them know that the wireless infrastructure will remain in public hands and that other Canadian companies will be given access.

7. Many users opted to add their personal stories as a preface or addendum to the main text, and additionally explicitly stated that they agreed with the suggested contents of the letter submitted. The letters are reproduced in full in Appendix A enclosed with this intervention.
8. The remainder of this submission will outline OpenMedia's key positions in response to the Commission's questions in paragraph 7 of the Notice of Consultation. OpenMedia reserves the right to comment further in subsequent stages of this proceeding, particularly in light of any new evidence that emerges from other interventions or service providers' responses to Commission requests for information, which will not be available before the first deadline for comments.

Q1. What other forms of connectivity could technically constitute a home network?

Q2. Should other forms of connectivity, such as Wi-Fi, be included in the definition of “home network”? If so, which ones should be included?

9. The Commission should allow other forms of connectivity to be included in the definition of “home network”, for the purpose of wholesale wireless roaming rates. This includes WiFi connectivity, iPCS connectivity as TNW Wireless described in its Part 1 Application (*Wholesale Roaming*

³ CRTC Communications Monitoring Report 2016, at page 60 (Table 2.0.7, “Canadian wireline and mobile wireless service subscribers per 100 households, by income quintile”).

Agreements required under Telecom Regulatory Policy CRTC 2015-177 (“TNW Part 1”),⁴ and other forms of connectivity that may arise in the future as innovative solutions that offer Canadians greater and more affordable choice in wireless communications.

10. According to Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services* (“*Wholesale Wireless*”), “Wholesale roaming provides incidental access to the host network by the customers of a wireless carrier when these customers are outside their home network’s footprint. In contrast, wholesale MVNO access provides an MVNO’s customers with permanent access to the host network.”⁵

11. Similarly, in Telecom Decision CRTC 2017-56, *Wholesale mobile wireless roaming service tariffs – Final terms and conditions* (“*Wireless Roaming*”), the Commission stated the following:

Wholesale roaming provides access to the incumbents’ networks on an incidental basis, and the MVNO subscriber roaming condition permits wholesale roaming customers to provide their MVNOs with access to their roaming arrangements only on the same terms and conditions as they themselves would obtain access. It does not provide permanent access. It would be inconsistent with the wholesale wireless framework to permit mandated wholesale roaming to be used as a means to obtain permanent access to the incumbents’ networks.⁶

12. While these definitions may apply to certain types of MVNOs—and without denigrating the legitimacy of or need for such MVNOs if they did—the definitions do not apply to the models under consideration in this proceeding, specifically WiFi-first MVNOs and TNW’s model. Under these models, there is no so-called “permanent roaming”. Subscribers do not connect to the roaming partner’s network as their first or even main port of call. There is no “permanent access” under these arrangements, given that subscribers rely first and foremost on the provided connectivity (whether WiFi, iPCS, or another form), as such plans clearly advertise and provide for technologically and financially.

13. OpenMedia is concerned that focusing specifically on the definition of “home network” unduly prioritizes the wrong side of the wholesale roaming relationship for purposes of regulation, and will unnecessarily narrow the availability of new and more affordable options for subscribers, while slowing innovation in the field. Where roaming is concerned, in the specific context of these particular models, incumbent network providers and the Commission should only be concerned with the roaming activity itself on the incumbent network—how much, how often, and at what price?

14. As far as WiFi-first and similar MVNO models are concerned, if the time spent on the roaming network itself is reasonable and on par with currently allowed forms of roaming, and the incumbent network receives fair compensation, which they do, then *it should not matter what the subscriber does or what their connectivity is when not on the roaming network*. That is not in the incumbent provider’s purview; it does not concern them and is a matter solely between the MVNO

⁴ TNW Wireless Part 1 Application, *Wholesale Roaming Agreements required under Telecom Regulatory Policy CRTC 2015-177* (5 July 2017) [“TNW Part 1”].

⁵ Telecom Regulatory Policy CRTC 2015-177, *Regulatory framework for wholesale mobile wireless services* (5 May 2015), at para 45 [*Wholesale Wireless*].

⁶ Telecom Decision CRTC 2017-56, *Wholesale mobile wireless roaming service tariffs – Final terms and conditions*, at paras 25-26 [*Wireless Roaming*].

and its customer, and thus should not affect roaming rates or the WiFi-first MVNO's ability to avail themselves of wholesale roaming agreements as the Commission has provided for.

15. Under *Wholesale Wireless*, the Commission established that incumbent providers could charge wholesale roaming rates using the Phase II costing approach.⁷ This is a costs-based approach to rate-setting that, by definition, guarantees incumbent providers more than fair compensation, given the mark-ups usually applied in such cases. For example, the Commission approved a 40% markup on interim wholesale roaming tariffs in 2015.⁸ Under functioning market forces and sufficiently competitive conditions, any reasonable company would likely want as much roaming business as possible given these terms, given it directly results in more revenue and profit. However, the dysfunctional structure of Canada's oligopolistic and largely vertically integrated telecommunications market lead to counterproductive incentives, such as incumbent providers fighting to shut down, rather than encourage, potential customers and additional business. This visits negative externalities upon Canadian mobile wireless users across the country, who already struggle to afford crucial telecommunications services.⁹
16. As the responses below will further elaborate, allowing for a more expansive definition of "home network" will increase competition, innovation, investment, and most importantly—particularly in light of the Order in Council—affordable choice in mobile wireless services for Canadians. WiFi-first and similar forms of MVNOs should not prove a problem for the Commission or for roaming partners in a functioning, genuinely competitive and innovative market, given the Phase II costing model and the central fact that the subscriber does, in fact, have a "home network" that is not the roaming partner's network. The fact that the home network does not necessarily belong to the subscriber's WSP is irrelevant for the purposes of wholesale roaming regulation. A network provider should only be concerned with what happens when a user is on their network, not where the user goes or how they access connectivity when they are elsewhere and otherwise off of it.
17. In light of the above (and the evidence presented below), the Commission should absolutely allow other forms of connectivity in the definition of "home network" for the purpose of wholesale roaming. This includes WiFi, iPCS, and other forms of connectivity that may arise through innovative models increasing affordability and choice of mobile wireless services for subscribers throughout Canada. Furthermore, the Commission should establish an expedited process for future models and forms of connectivity such that an entire Part 1 process or generic proceeding is not required for each new model or form of connectivity to be included in the definition of "home network" for this purpose, so long as there *is* a form of connectivity other than the roaming partner's network, that the MVNO clearly intends and provides for its subscribers to use and consider *their* "home network".

⁷ *Wholesale Wireless*, at para 140.

⁸ Christine Dobby, "Approval of roaming-rate 'tariffs' tilts advantage back to Big Three" (8 December 2015), online <<https://beta.theglobeandmail.com/report-on-business/rob-commentary/executive-insight/crtc-approves-roaming-rate-tariffs-big-three-can-charge-competitors/article27652167/>>.

⁹ See Jonathan Bishop and Alysia Lau, Public Interest Advocacy Centre, *No Consumer Left Behind Part II: Is There A Communications Affordability Problem in Canada?* (15 September 2016), online: <http://www.piac.ca/wp-content/uploads/2016/09/PIAC_No-Consumer-Left-Behind-Part-II-Website-Version.pdf> [Affordability Report].

Q3. How would an expanded definition of “home network” impact the affordability of retail mobile wireless services to Canadian consumers?

18. An expanded definition of “home network” has the potential to do more for the affordability of retail mobile wireless services to Canadian telecommunications users than anything we have seen in recent years. OpenMedia would urge the Commission to give great thought to the underlying conditions that gave rise to Sugar Mobile in the first place: evident need and demand among Canadians, given the lack of better options; the inability to provide new, affordable, and innovative offerings in any other way under the current regulatory and oligopolistic market environment (see response to Q7d below); and the willingness on the part of new providers such as Sugar Mobile to innovate and address Canadians’ otherwise unmet needs even under current constraints.
19. Year after year, statistics, news articles, and the Commission’s own Communications Monitoring Report¹⁰ and international price comparison studies¹¹ indicate that Canada holds the dubious honour of offering some of the highest mobile wireless prices among G7 and OECD countries:

Canadians continue to pay some of the highest rates for wireless service in the G7 and Australia, according to a study commissioned by the CRTC and released Thursday. The study, which was carried out by Nordicity Group for the telecom regulator, found that Canadians looking for 150 minutes of monthly mobile service paid more than consumers in every other G7 country and Australia. That entry-level wireless package costs an average of \$41.08 a month in Canada. By way of comparison, the cheapest price for that level of service cost just \$17.15 in Germany.¹²

Traveling in Europe one comes face to face with the exorbitant cell-phone rates we’re charged in Canada, the land of the true north, strong and anything-but-free. Even outside Europe, it turns out, cell/mobile phone rates are also far better, such as in Australia and Hong Kong, not to mention in most of the industrialized world. In Denmark this week, talking to friends and step-family, I discovered Danish cell phone rates are less than one third the price of those in Canada. [...]

Canadian Prof. John Stackhouse said the big three telecommunications companies in Canada – Bell, Telus and Rogers – defend themselves by repeatedly saying cell rates are high in Canada because it’s such a large country to service. But, as Stackhouse says, Canada’s population is actually concentrated along a very “thin” region near the U.S. border. Presumably, it’s not that hard to service this country’s populated areas. And even in light of the “big country” argument, one correspondent said that Australia — which also happens to be rather large and thinly populated — offers much better cell phone rates than Canada.

¹⁰ See, e.g., Canadian Radio-television and Telecommunications Commission, *Communications Monitoring Report 2016* (27 February 2017), online: CRTC

<<http://www.crtc.ca/eng/publications/reports/PolicyMonitoring/2016/cmr.pdf>> [“CMR 2016”].

¹¹ See, e.g., Nordicity, *2016 Price Comparison Study of Telecommunications Services in Canada and Select Foreign Jurisdictions* (11 August 2016), online: CRTC

<<http://www.crtc.gc.ca/eng/publications/reports/compar/compar2016.htm>> [“Nordicity Report”]; Christine Dobby, “How Canada’s Internet, wireless rates compare with international prices” (11 August 2016) *Globe and Mail*, online: <<https://beta.theglobeandmail.com/report-on-business/how-canadas-internet-wireless-rates-compare-with-international-prices/article31379589/?ref=http://www.theglobeandmail.com&>>.

¹² CBC News, “Canada’s cellphone rates rank among highest in 8-country study, report says” (11 August 2016), online: <<http://www.cbc.ca/news/business/crtc-phone-study-1.3717093>>.

In fact, the OECD finds that not only do Canadian wireless services rank poorly when compared to the rest of the OECD, but so too do broadband Internet services (I'll focus on broadband in a later post). These wireless price rankings run from cheapest (1st) to most expensive (34th). Canada ranks among the most ten most expensive countries within the OECD in virtually every category and among the three most expensive countries for several standard data only plans.¹³

20. The CMR 2016 made the following observations with respect to the impact of unaffordable mobile wireless services on low-income Canadians particularly:

“[W]ireless-only households are most prominent among the two lowest income quintiles (see Table 2.0.7). This suggests that the rise of mobile-only households does not solely reflect changing preferences but may also be driven by affordability. [...]

[A]verage wireless service expenditures for all income quintiles grew by 4.75% between 2013 and 2014 and have a 2010 to 2014 CAGR Section 2.0 | CMR 2016 47 of 7.93%. Although household spending on communications services increased across all income quintiles, households in the highest quintiles are spending more on communications services compared to those in the lower quintiles. Nevertheless, the growth rate is generally higher in the lower income quintiles. For example, Internet service spending in the first income quintile grew 15.31% since 2013.¹⁴

21. Additionally, according to the CMR 2016, Canadian households in the lowest income quintile spent 6.6 per cent of their annual income on communications services in 2014, while households in the highest income quintile spent 1.5 per cent—low-income Canadians had to spend over four times as much of their annual incomes on everyday communications alone.¹⁵

22. The impact of affordability issues in mobile wireless services on low-income Canadians is compounded when one considers that they are more likely to be mobile wireless-only households (due to affordability also being an issue in wireline broadband Internet services).¹⁶ The issue will also become increasingly critical moving forward into the future, given the following findings from the Public Interest Advocacy Centre:

Over a quarter of Canadians surveyed by the CRTC use their mobile phone more than other communications services, while 44% of low-income Canadians surveyed by PIAC consider mobile phone service either important or extremely important. Moreover, survey evidence suggests Canadians' reliance on mobile phone will increase over the next five years. In general, if you are a low-income Canadian, the younger you are, the more likely you will view mobile phone service as important or extremely important.¹⁷

23. The Commission's constituency—citizens in every region of Canada, whether they use telecommunications services or simply wish to but cannot due to affordability—have had enough. The week that lowermycellbill.ca was launched, for example, frustrated and struggling mobile wireless users immediately flooded the Twitter feed of the #CRTC tag to air their grievances.

24. In Telecom Regulatory Policy CRTC 2016-496, *Modern telecommunications services – The path forward for Canada's digital economy [Modern Services]*, the Commission acknowledged

¹³ Michael Geist, “OECD Report Confirms What Canadians Have Long Suspected: Wireless Pricing Among Highest in the World” (15 July 2013), online: <<http://www.michaelgeist.ca/2013/07/oecd-on-wireless-pricing/>>.

¹⁴ CMR 2016, at pages 42 and 46-47.

¹⁵ CMR 2016, at page 47 (Table 2.0.4, Household spending on communication services, by income quintile, 2014).

¹⁶ CMR 206, at page 60 (Table 2.0.7, Canadian wireline and mobile wireless service subscribers per 100 households, by income quintile).

¹⁷ Affordability Report, at page 79.

affordability concerns with respect to Internet services, particularly where low-income citizens are concerned:

Moreover, analysis of pricing and income-related data from the 2016 CRTC Communications Monitoring Report supports parties' views that low-income households are experiencing issues related to the affordability of their broadband Internet access services. Although spending on communications services by lower-income households was less than that by higher-income households, expenditures on communications services take up a significantly larger percentage of their annual incomes. In addition, households in lower-income quintiles are much less likely to use the Internet from home than those in higher-income quintiles.¹⁸

25. Despite that, the Commission declined to take direct action to address the issue and make telecommunications services more affordable for Canadian. Rather, the Commission decided to rely on “a multi-faceted approach, including the participation of other stakeholders ... including ISPs and community organizations”. The Commission also noted that “the Government of Canada is currently examining these affordability issues in the context of its Innovation Agenda. As the Government of Canada has stated, everyone has a role to play. [...] As stated in the Commission’s submission to the Innovation Agenda, the Commission supports concerted efforts from a variety of stakeholders as essential to making progress in this area and encourages other stakeholders to follow suit.”¹⁹
26. In the time since that decision, at least three things have occurred that should cause the Commission to revisit its earlier assessment of the mobile wireless affordability situation for Canadians. First, ISPs have *raised* mobile wireless prices yet again—the exact opposite of what the Commission may have over-optimistically hoped.²⁰ Second, when new, upstart providers did “implement innovative solutions” to meet clear need and demand, they encountered significant resistance from incumbent ISPs²¹ and the Commission itself eventually issued a ruling that required one to shut down its innovative solution.²² Third, the Government of Canada, through an Order in Council from the Minister responsible for the Innovation Agenda, has now decided as a result of its ongoing examination of affordability issues that the Commission may now need to play a more direct role.
27. That role would involve ensuring a regulatory framework conducive to new and innovative solutions that genuinely meet the needs of Canadians struggling to afford mobile wireless services. In this case, that specifically means expanding the definition of “home network” to include WiFi, iPCS, and other forms of connectivity, for the purposes of wholesale roaming rates, and enabling WiFi-based MVNOs and similarly innovative solutions to flourish.

¹⁸ Telecom Regulatory Policy CRTC 2016-496, *Modern telecommunications services – The path forward for Canada’s digital economy*, at para 202 [*Modern Services*].

¹⁹ *Ibid.*, at paras 203-04.

²⁰ “Both Rogers and Bell have hiked their data overage fees at a time when Canadians are thirsting for more wireless data. When cellular customers hit their data cap, they can add more — usually at a steep price. For its new shared family plans, Rogers has increased its data overage charge by 40 per cent: from \$5 to \$7 for each additional one-tenth of a gigabyte. A full extra GB now costs \$70 — a \$20 hike. Bell also charges \$7 for every extra tenth of a GB for new customers and those switching plans. The telco raised its fee from \$5 to \$6 in 2016 then upped it again to \$7 in April — a 40 per cent increase over two years.” Sophia Harris, “Rogers, Bell hike overage fees at time when customers thirst for wireless data” (9 July 2017), online: *CBC News* <<http://www.cbc.ca/news/business/bell-rogers-wireless-data-overage-fee-1.4195410>>.

²¹ See, e.g., TNW Part 1.

²² Telecom Decision CRTC 2017-57, *Ice Wireless Inc. – Application regarding roaming on Rogers Communications Canada Inc.’s network by customers of Ice Wireless Inc. and Sugar Mobile Inc.* (1 March 2017) [*Sugar Mobile*].

Q4. How would an expanded definition of “home network” impact investment in mobile wireless network infrastructure?

28. Expanding the definition of “home network” in the context of wholesale GSM roaming rates would at worst, do no harm to investment, and at best, would in fact induce increased investment in mobile wireless services and networks across the board. This is due to the fact that incumbent network providers would be incentivized to invest further in their networks both to meet the demand of their MVNO clients, and because they would have to make more effort to attract and retain customers in the more dynamic, innovative, and competitive market that MVNOs would promote and make more of a reality.
29. First, the argument that mandated wholesale access to networks will harm investment has been attempted, and failed, consistently and repeatedly in the wholesale wireline context. In each proceeding, whether the Commission decided to mandate open access to FTTN, or to FTTP, or in response to another attempt before Cabinet, incumbent network providers have argued that providing for mandated wholesale access would harm investment. The Commission mandates wholesale access, and incumbent providers not only continue to invest in their networks, but regularly boast of such investments and their scale and continuity, to their shareholders.²³ There is likely to be no difference from this in the context of establishing a more robust and effective mandated wholesale wireless roaming regime.
30. In fact, there have already been signs of the above pattern being borne out in the wireless context. In the proceeding leading to *Wholesale Wireless*, as the Commission noted, “[T]he national wireless carriers submitted that regulation of wholesale roaming rates would adversely impact wireless carriers’ incentive to invest in their networks.”²⁴ Yet, despite the Commission having mandated wholesale roaming rates, all three national wireless carriers have continued announcing presumably true details of further investments in and commitments to improving their respective (albeit in part shared) networks.²⁵

²³ See records of proceedings leading to Telecom Regulatory Policy CRTC 2010-632, *Wholesale high-speed access services proceeding* (30 August 2010) [*Matching Speeds*]; Telecom Regulatory Policy CRTC 2015-326, *Review of wholesale wireline services and associated policies* (22 July 2015) [*Wholesale Wireline*]; and Privy Council Office, PC Number 2016-0332 (10 May 2016) (“Whereas the Governor in Council notes that Telecom Regulatory Policy CRTC 2015-326 revised the wholesale services framework to achieve improved consumer choice and competition, further investment in high-quality networks, innovative service offerings and reasonable prices for consumers; ... Therefore, His Excellency the Governor General in Council, on the recommendation of the Minister of Industry, declines to vary Telecom Regulatory Policy CRTC 2015-326 under subsection 12(1) of the Telecommunications Act.”).

²⁴ *Wholesale Wireless*, at para 111.

²⁵ See: <http://www.bce.ca/news-and-media/releases/show/The-fastest-wireless-gets-faster-Bell-Mobility-network-the-first-in-North-America-capable-of-delivering-Quad-Band-LTE-Advanced-speeds-1> (“Bell has built a strong reputation for leading innovation in Canadian broadband communications, enabled by a great team and the highest levels of investment in network infrastructure and Canadian R&D”); https://about.telus.com/community/english/news_centre/news_releases/blog/2017/05/31/telus-investing-47-billion-through-2020-to-extend-advanced-communications-infrastructure-across-british-columbia-to-continue-driving-growth-and-innovation-for-the-next150 (“TELUS will invest \$4.7 billion in new communications infrastructure across British Columbia through 2020, including \$1.2 billion this year alone.”); and <http://www.newswire.ca/news-releases/rogers-improves-wireless-service-across-alberta-642012843.html> (“Rogers today announced it continues to invest in communities across Alberta with expanded LTE wireless service in Lethbridge and between Banff and Calgary. ... ‘Our customers want to be able to connect to the people and things they love, no matter where they are,’ said Raj Doshi, Executive Vice-President, Wireless Services, Rogers Communications. ‘That’s why we’re investing to make sure they have worry-free, reliable access to our

31. Service providers who oppose mandated wholesale access in the MVNO context have also provided little to no concrete evidence that mandating such would in fact harm investment, let alone if the Commission's reconsideration is confined to WiFi-based and similar MVNOs, which already provide users with a primary network(s) that is not the roaming partner's network. However, there is considerable documented evidence to the contrary regarding continued investment, and increased competition spurring further investment.
32. Even if there were evidence of harm to incumbent providers' investments, the Commission must ensure that its regulatory framework encourages investment across the board, from all manner of potential service providers, including MVNOs themselves. Incentivizing investment in Canadian telecommunications goes beyond doing so for a handful of dominant providers alone, and telecommunications users across the country can only benefit from a more diversified market.

Q5. How would an expanded definition of “home network” impact competition in the market for retail mobile wireless services?

33. Expanding the definition of “home network” for purposes of mandated wholesale roaming will increase competition and innovation, as well as investment (described above), in the retail mobile wireless services market. One only has to look to other jurisdictions that have recognized the reality of the market circumstances that their citizens are subjected to, and taken the necessary, forward-looking steps to allow MVNOs through mandated wholesale wireless access. In this case, the Commission is being asked by both the Government of Canada and everyday Canadians themselves, to take the much more moderate step of allowing WiFi-based MVNOs under the current, pre-existing framework.
34. The United States, for example, features a cornucopia of over 240 varied MVNO solutions, including Ting, Republic, FreedomPop, Scratch, MetroPCS, Brightspot, UltraMobile, Net10, PTel, Ringplus, Freewheel, Simple Mobile, Red Pocket, Kajeet, Voyager, Solavei, Xfinity, Pure TalkUSA, and Scratch Wireless—for starters.²⁶ The success, copiousness, and innovation of such providers do not seem to have harmed the investments, prospects, financial status, or market power of larger providers such as Verizon, Comcast, and AT&T.
35. As far as everyday citizens are concerned, more providers in the market means more competition, and that can only be a good thing.²⁷ There cannot be competition without competitors—true competitors, who do not appear to operate in sync with each other or who aspire to charge as much as incumbents rather than undercut them—and that is the current situation in Canada. Allowing WiFi-based MVNOs would be the first step towards correcting this

great-performing network in more places. As communities across the province keep growing, we're going to continue to invest in improving service across Alberta.').

²⁶ See, e.g., <https://www.digitaltrends.com/mobile/best-mvno/>; <https://bestmvno.com/mvnos/>; <https://bestmvno.com/featured/mvno-list-featuring-10-best-and-most-unique/>; <https://www.bloomberg.com/news/articles/2016-02-04/the-phone-companies-people-actually-love>. See also, for Netherlands: <https://www.vyke.com/mvnos-continue-growth-dutch-mobile-market/>; and, for United Kingdom: <https://www.uswitch.com/mobiles/guides/mvnos-a-guide-to-coverage-and-pros-and-cons-of-virtual-networks/>; <http://www.grantthornton.co.uk/globalassets/1.-member-firms/united-kingdom/pdf/publication/state-of-the-uk-mvno-market.pdf>.

²⁷ Digital Fuel Monitor, “Effectiveness of MVNO wholesale access remedies” (January 2016), online: http://dfmonitor.eu/insights/2016_jan_premium_mvno_remedies/.

dysfunction, and ensuring that Canadians are able to afford what has been widely recognized, domestically and internationally, as one of the most essential services in life and society today.

Q6. How should the Commission weigh any potential positive impact on affordability against any potential negative impact on investment?

36. Given that there will likely be little to no negative impact on investment, as described above, this question and arguments to the effect that the Commission must “choose one” sets up a false dichotomy. Expanding the definition of “home network” to allow for WiFi-based MVNOs and similar models will both positively impact affordability for Canadians, while also positively impacting investment.
37. OpenMedia submits that enabling full MVNOs would incentivize further investment from all providers in the market as well—both incumbent providers as well as new, innovative, independent providers. However, within the context of this proceeding, enabling WiFi-first and similar MVNOs by expanding the definition of “home network” for wholesale roaming purposes would prove a promising step forward for Canadians’ everyday lives and their wireless telecommunications system as a whole.
38. If the Commission does consider that it must “choose”, then it is critical to keep one fundamental distinction in mind when determining the outcome of this proceeding: market forces will ensure that investment continues, no matter what. There is voluminous evidence to this effect, including each carrier’s investor materials, annual reports, press releases, investor conference calls, and the fact that at the end of the day, it militates more towards providers’ economic interests to invest in their networks and keep up with users’ booming data usage, than not. However, market forces will *not* ensure that carriers’ offerings become or remain affordable to users, particularly low-income users. If anything, the distorted market forces that have given shape to today’s telecommunications market have done more to ensure against affordability, based on the record of the Commission’s basic services hearing²⁸ and PIAC’s Affordability Report.
39. Thus, the Commission should weigh its decision towards erring on the side of more affordability, rather than less, for Canadians already struggling with affording critical communications services.

Q7. If an expanded definition of “home network” were to be adopted:

- a. **Should the Commission impose usage limits to ensure that the end-users of any alternative wireless service provider do not access the national wireless carriers’ networks on a permanent basis? How could such usage limits be established and operationalized?**
- b. **Should the Commission subject alternative wireless service providers to a different tariffed wholesale roaming rate for access to the national wireless carriers’ networks? If so, how could such a rate be determined?**

²⁸ Telecom Regulatory Policy CRTC 2016-496, *Modern telecommunications services – The path forward for Canada’s digital economy* (21 December 2016).

c. Are there any other regulatory measures that could be imposed to mitigate potential negative impacts of requiring the national wireless carriers to allow roaming by customers of alternative wireless service providers on the carriers' networks?

40. OpenMedia submits that usage limits should not be a concern in the case of WiFi-based or similar MVNOs, because they would be self-limiting to a certain extent.
41. First, while OpenMedia holds that the Commission should also mandate wholesale access for full MVNOs, in the context of this proceeding, the WiFi-first model, which is not simply marketing but is a built-in technological feature, specifically ensures that any roaming that does occur on an incumbent provider's network is, in fact, incidental, occurring only where the subscriber does not have access to WiFi.
42. Second, the MVNOs would have to pay the incumbent network providers for as much data as they offered to their customers, or as much data as their customers used. This ensure that regardless of usage, incumbent operators will receive fair compensation for use of their networks.
43. The Commission should not subject alternative wireless services to a different roaming rate. The Commission and all involved stakeholders have already completed a lengthy and complex process to arrive at the final tariffs, and to have to engage in a duplicative separate process would simply be an exercise in further delay. The current tariffs have been established and approved by the Commission as fair and appropriate rates for wholesale roaming agreements, and the most efficient regulatory approach is to simply apply these same tariffs to WiFi-first and similar MVNOs.

d. Should there be a requirement for alternative wireless service providers to own or operate home networks?

44. There should not be a requirement for alternative wireless service providers to own or operate home networks, as that would defeat the purpose of enabling more innovative, nimble, and immediate solutions to Canada's telecommunications affordability problem. The reason that there is such high demand for mandated wholesale wireless access to begin with is due to the unreasonably high barriers to entry that aspirational MVNOs face under current conditions.
45. The records of the proceedings leading to *Wholesale Wireless* as well as to Telecom Decision CRTC 2016-60, *The Canadian Network Operators Consortium Inc. – Application to review and vary Telecom Regulatory Policy 2015-177* ("Wholesale Wireless R&V") provide evidence that demonstrates how difficult, if not in fact impossible, it is to start an independent MVNO in Canada. Ting, for instance, is owned by the Canadian company Tucows, and has seen great success in the United States—but not in Canada. The TNW Part 1 is illustrative in terms of the onerous process that TNW was subjected to in simply attempting to obtain a wholesale roaming agreement and be eligible for "consideration".
46. It is also worth noting that some of the "new entrants" themselves, such as Videotron, began as an MVNO before building up to the ability to operate as a mobile network operator (MNO),²⁹ rather than being able to jump straight to the latter. This, when Videotron was already an Internet

²⁹ See: <http://corpo.videotron.com/site/our-company/history/cable-service-evolution.jsp>.

and cable television service provider, rather than a small-time innovator entering the market for the first time and starting from scratch.

47. The fact that the national carriers themselves must share networks speaks to the difficulty of building any with even fewer resources and capital to hand. Lastly, requiring alternative wireless service providers to own or operate home networks, if in the sense of facilities-based networks on par with what national carriers and regional new entrants have done, would require a likely outright insurmountable barrier at this point: acquiring spectrum. Given its demonstrated scarcity and ISED having yet to arrange for a new spectrum auction, OpenMedia is unsure how a new entrant without pre-existing spectrum may be reasonably expected to meet such a requirement in order to enter the market and provide Canadians with new, innovative, and affordable mobile wireless solutions.

e. **To what extent should alternative wireless service providers have to comply with existing regulations (e.g. provision of 9-1-1, registration with the Commission, and consumer safeguards) to qualify for access under the tariff?**

48. Alternative wireless service providers should have to comply with existing regulations such as 9-1-1 provision and consumer safeguards. Registration with the Commission would also be valuable as an information tool for citizens as well as to assist the Commission in remaining fully aware of ongoing in the area. With respect to other existing regulations in effect that would potentially be applied to alternative wireless service providers, as well as to the example regulations above, OpenMedia will reserve further comment at this stage of proceedings.

Q8. In order to support the Commission's ongoing monitoring of the mobile wireless market as set out in Telecom Regulatory Policy 2015-177, provide your views on the competitiveness of this market. Include supporting data.

49. The Canadian mobile wireless market is not competitive. The Commission's demonstrated optimism in the *Wholesale Wireless* and *Wholesale Wireless R&V* decisions has not proven justified.³⁰ On the contrary, the market has not only failed to improve in the way hoped for, with a slightly more flexible regulatory regime giving rise to new entrants and MVNOs in the wireless market, but the situation has in fact regressed and worsened.

50. For example, all of the following have occurred since the Commission's two decisions above: Bell bought MTS, the sole regional wireless competitor in the entire province of Manitoba; Videotron has sold off various spectrum holdings, confirming it will not become a national carrier; the top three wireless carriers have continued to raise prices in near synchronicity with each other; and Shaw acquired Wind Mobile, now Freedom Mobile, with publicly stated intent to trend towards incumbents' current price levels, and perpetuate rather than disrupt the current market. Canada has also now lost Mobilicity and Public Mobile, folded into or to give way to incumbent providers' flanker brands.

³⁰ See, e.g., "[T]he Commission is using its existing powers to take action to reduce certain barriers faced by MVNOs to facilitate, and allow more flexibility in, their commercial negotiations with wireless carriers. These measures, set out later in this decision, should also encourage the emergence of a competitive market for wholesale MVNO access." *Wholesale Wireless*, at para 124.



Conclusion

51. The Commission should expand the definition of “home network” to include WiFi, iPCS, and other forms of connectivity that would provide *users* with a home network (or networks) other than the roaming partner’s network, for the purpose of the current mandated wholesale roaming regime. Evidence has demonstrated that what the Commission provided for in *Wholesale Wireless* and related decisions, in the way of “encouraging” MVNOs to enter the market, has not worked. Continuing to bar MVNOs by declining to mandate wholesale access, for WiFi-based models or otherwise, will not lead to an influx of MNOs. It would simply leave Canadians with nothing.
52. Enabling mandated wholesale access for WiFi-based MVNOs and similarly innovative solutions would be in alignment with the Government of Canada’s Innovation Agenda, the ISED Minister’s Order in Council, the section 7 policy objectives in the *Telecommunications Act* as well as the Policy Direction (by allowing market forces to genuinely operate), and, most importantly, with the needs and best interests of everyday Canadians. Over 8,000 citizens have written to the Commission to request WiFi-based MVNOs as only one, moderate solution to the longtime problem of mobile wireless affordability in the Canadian telecommunications market.
53. While this proceeding is about WiFi-based MVNOs specifically, the Commission should simultaneously take note that they do not represent a full solution to the problem of mobile wireless affordability. This problem is a structural issue rooted in the vertically integrated nature of the Canadian telecommunications system, and thus could likely only be fully remedied by structurally separating the retail and wholesale layers in the mobile wireless sector. The next best solution would be to mandate wholesale wireless access for all MVNOs, and OpenMedia maintains that this is still a necessity to ensure affordable choice for all Canadians.
54. In the meantime, however, enabling WiFi-first MVNOs and other similar models would go a long way towards addressing Canadians’ affordability struggles with mobile wireless services, as has been detailed above and thoroughly elsewhere for years. Between that positive impact and the further impact of increasing innovation, competition, and investment in Canada’s telecommunications system, the path forward seems clear.

Best regards,

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