

Intervention

Submitted to the CRTC

**Re: Telecom Notice of Consultation 2015-134
Review of Basic Telecommunications Services
File number: 8663-C12-201503186**

Comments of OpenMedia

February 1, 2016

OpenMedia is a community-based organization that works to keep the Internet open, affordable, and surveillance free.

www.openmedia.org

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A. Executive Summary

ES1. OpenMedia is a community-based organization that works to keep the Internet open, affordable, and surveillance free. As part of this proceeding, more than 25,000 members of the OpenMedia community have joined our Unblock Canada campaign to submit their views to the CRTC. In doing so, they have called on federal policymakers to provide “affordable, world-class broadband Internet for all Canadians as soon as possible”.¹ Since our initial intervention, an additional 11,835 Canadians have endorsed our campaign, bringing the grand total to 36,421 at the time of writing.

ES2. We are pleased that a large number of Canadians, businesses, public sector and civil society organizations have participated in this proceeding. Their consistent message is that the Commission must now acknowledge the economic reality that broadband Internet connectivity is presumptively viewed as an essential and basic communications service. OpenMedia agrees with this consensus view and urges the Commission to:

Redefine high-speed access [hereinafter “broadband”] as essential and thus subject to universal access obligations and binding minimum service quality standards; and

Implement measures for delivering such standards of service to all Canadians, regardless of income or place of residence.

ES3. OpenMedia supports efforts by parties such as the Affordable Access Coalition (AAC) to develop an industry-funded mechanism for addressing infrastructure and affordability barriers to basic Internet services. Several other parties to this proceeding have submitted evidence regarding concerns about access to Internet services in rural and remote communities, as well as access to basic services by vulnerable populations. OpenMedia urges the Commission to pay careful attention to evidence from the First Mile Connectivity Consortium (FMCC) and Eastern Ontario Wardens’ Caucus (EOWC)/Eastern Ontario Regional Network (EORN) regarding challenges facing rural communities. Submissions by the Elementary Teachers’ Federation of Ontario (ETFO) with respect to the Internet access of children from low-income households and by the Media Access Canada (MAC)/Access 2020 Group of Accessibility Stakeholders reflect the multifaceted nature of Canada’s digital divide.

¹ <https://unblockcanada.ca/>

- ES4. Against the broad consensus about the essentiality of broadband Internet access, a small but influential number of parties continue to deny the existence of any problems related to Internet access in Canada. These parties generally maintain that quality and affordability concerns are limited to a small number of high-cost rural and remote communities. OpenMedia submits that a cross-subsidy mechanism from low-cost urban to high-cost rural parts of the country, funded by the dominant incumbents, will be needed for addressing the urban-rural digital divide; and OpenMedia supports efforts noted in this proceeding to develop such a mechanism.
- ES5. Nevertheless, our support for rural initiatives is not to deny that reliability and affordability of service also constitute a serious problem for many Canadians living in urban centres who have low incomes, face a lack of affordable options, or require sustained minimum speeds in order to use certain Internet applications.
- ES6. Canadian and international evidence on the record contradicts the claims by incumbent operators that broadband access should not be considered a basic service; that market forces in Canada are adequate for achieving the statutory objectives of the *Telecommunications Act*; and that problems with basic service quality and affordability are strictly rural in nature. Even if these parties were correct and market forces are adequate to meet the needs of average consumers, this perspective does not explain why the Commission should not adopt a basic service regime that stimulates market forces in terms of investment in quality, accessibility, and affordability of services available to all Canadians.
- ES7. OpenMedia submits that by redefining broadband access as a basic service and implementing a cross-subsidy mechanism that ensures all Canadians have access to a minimum standard of basic services, the Commission may promote private sector investment and competition in delivery of reliable and affordable services of a high quality as mandated under Section 7 of the *Telecommunications Act*.
- ES8. During the interrogatory phase of this proceeding, OpenMedia attempted to elicit evidence from six of the larger operators, in particular their internal performance estimates on the proportion of connections that fall outside the Commission's 5 Mbps download / 1 Mbps upload (hereinafter: "**5/1 Mbps**") targets during the highest traffic period (6:00pm to 12:00 midnight). None of the respondents provided this important information about their operations, even though OpenMedia suggested they could do so in confidence to the Commission. We argue that, without this information, it will be very difficult if not impossible for the Commission to evaluate the effectiveness of its existing policies and to craft new policies that will help achieve the objectives of the *Telecommunications Act*.

- ES9. Given the salience of this data to the issues raised in CRTC 2015-134, we were particularly disappointed that the Commission declined to require the six operators to respond to our questions, and that it did so without providing any reasons. Without data on actual service quality in high-traffic periods from the network performance and management systems of the dominant providers, the Commission cannot validate their insistence that a new policy framework be based on strictly aspirational standards, as opposed to concrete and verifiable minimum quality and speed guarantees.
- ES10. As the dominant operators declined to provide their estimates of actual speeds relative to the Commission's 2011 benchmarks, we offer here some evidence on connectivity speeds that calls into question claims by this group of operators based on the availability of advertised service speeds. The issue here is that the large ISPs use advertised rather than actual speeds to validate their claim that connectivity plans are already available across Canada that meet the Commission's 2011 target speeds of 5/1 Mbps.
- ES11. We submit that using advertised rather than actual speeds in this context is meaningless and misleading, especially when one of the key objectives of this proceeding is to determine whether broadband Internet should be defined as a basic service subject to universal access obligations. In congestible broadband networks, actual connectivity speeds can diverge significantly from advertised rates specified in terms of "up to X Mbps" in retail contracts. We therefore urge the Commission to focus in its deliberations primarily on indicators based on actual performance measurements, rather than claims based on the best effort speeds ISPs advertise in order to compete with each other for customers.
- ES12. Based on the evidence presented in this consultation, OpenMedia submits that it is time for the Commission to require the large operators to contribute to a sustainable cross-subsidy mechanism designed to address the serious concerns about infrastructure investments and affordability considerations with respect to vulnerable populations. In order to maximize the impact of available public and private funds, such a mechanism will need to have certain safeguards built in. For example, any funds intended to address network infrastructure or affordability should be allocated using competitive tendering procedures only, and they should be applied strictly to next generation fibre transport and access facilities (as well as 4G+ mobile and community wireless initiatives). Furthermore, the right to bid on any public subsidy scheme should be conditional on bidders agreeing explicitly to open-access obligations, as well as to verifiable targets for actual, not advertised, connectivity speeds.

ES13. In order to achieve the basic service objectives of the *Telecommunications Act*, OpenMedia submits that it would be in the interests of all Canadians, including incumbent operators, for the Commission to enact the following recommendations. The Commission should:

1. *Recognize that broadband access is presumptively viewed as an essential service by most Canadians and thereby include broadband Internet access services, both fixed and mobile, in the basic service framework.*
2. *Build on the Commission's approach to "skinny basic" TV service to address affordability concerns by mandating that all service providers offer at least one subscription plan that includes a verifiable minimum service quality guarantee at all times of day for all applications, and is reasonably priced.*
3. *Recognize that a more robust basic service framework that includes minimum service quality guarantees is entirely compatible with aspirational speed targets on par with our international counterparts.*
4. *Ensure that indicators of performance are drawn from actual performance measurements, rather than advertised best effort speeds, in line with the Commission's 2011-291 decision.*
5. *Phase out data caps. Broadband service should be differentiated on the basis of speed, price, and actual, real-world quality of service – not usage.*
6. *Build on suggestions by the AAC and other parties to adopt a multipronged funding mechanism drawn from the revenues of the large operators, designed to address rural market failures as well as the access and affordability problems facing low-income Canadians in urban centres.*
7. *Build on recent efforts in CRTC 2015-326 to promote investment in networks by requiring open access and service quality guarantees from all private entities receiving public funds for new or expanded broadband infrastructure.*
8. *Restrict the use of public infrastructure funds to advanced fibre access and transport facilities, as well as advanced wireless networks where deployment of fixed fibre access is limited.*
9. *Revisit the 2015-326 decision to refrain from imposing wholesale access obligations on middle-mile and transport facilities that aggregate traffic from rural and suburban communities.*
10. *Proceed carefully in phasing out basic service obligations on legacy services before implementing a robust basic service framework for broadband access that will provide the network resources Canadians consider essential for their social, cultural, and economic activities.*

B. Perspective of the OpenMedia Community and Positions of the Parties

1. Over the past eight years, OpenMedia has been on the front lines listening to individual Canadians and independent businesses about how to strengthen and improve access to reliable and affordable Internet services. To address concerns about discriminatory traffic management practices, sub-standard service, and the high price of accessing the Internet, OpenMedia has worked to increase awareness among policymakers and the public-at-large about these realities. Since our founding in 2008, well over half-a-million Canadians have spoken out through our campaigns around mobile and wireline Internet choice and affordability.
2. Our ongoing Internet Emergency campaign² and submission to the Governor in Council³ regarding the Commission's 2015-326 wholesale policy framework illustrates OpenMedia's commitment to promoting policies that enhance competition and investment in advanced broadband technologies. One of our main goals in this proceeding is to find consensus around the need to reverse Canada's decline as a broadband leader over the past decade. Mounting evidence that Canadian ISPs have been falling behind their counterparts in other advanced countries in terms of service quality has economic implications for Canada that extend far beyond the business of providing retail Internet access.
3. In response to Telecom Notice of Consultation CRTC 2015-134, the OpenMedia community has submitted over 25,000 interventions through our Unblock Canada campaign, calling on policymakers to ensure the deployment of "affordable, world class broadband Internet for all Canadians as soon as possible".⁴ Some 22,000 of these submissions consisted of a form letter signed by our community members, while another 3,000 submissions represent individual comments by the OpenMedia community through an Internet Voice Tool hosted at UnblockCanada.ca/Comment. Exhibit 1 provides the text of the interventions submitted by our community, urging the Commission to adopt a universal access mandate, adopt more ambitious minimum service quality standards, and provide municipalities and non-incumbent service providers the resources they need to improve the network infrastructure available to Canadians.

² In which nearly 65,000 Canadians have to date asked Innovation Minister Navdeep Bains to "**Listen to Canadian Internet users and businesses, and reject Bell's price-gouging scheme.**" <https://act.openmedia.org/emergency>

³ [https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapi/DGTP-002-2015-OpenMedia.pdf/\\$FILE/DGTP-002-2015-OpenMedia.pdf](https://www.ic.gc.ca/eic/site/smt-gst.nsf/vwapi/DGTP-002-2015-OpenMedia.pdf/$FILE/DGTP-002-2015-OpenMedia.pdf)

⁴ <https://unblockcanada.ca/>

**Exhibit 1:
Text of approximately 22,000 individual interventions submitted to CRTC 2015-134 by the OpenMedia Community**

Dear Commissioners,

Universal access in Canada must be defined to include affordable, world-class broadband Internet for 100% of the population.

This access must have upload and download speeds and quality on par with our international counterparts. Canada's goals are currently much slower than other industrialized countries. The U.S. recently defined broadband at 25 megabits per second down, and 3 megabits per seconds up. Our targets should be at least this ambitious.

The CRTC should also prioritize new mechanisms for achieving these goals, including special opportunities for nonincumbent ISPs, municipalities, community access programs and non-profit service providers to deliver services to Canadians.

A successful strategy will ensure that all Canadians have affordable, next generation service. All telecom providers must provide this minimal level of connectivity everywhere they can at a reasonable price.

I acknowledge that my comments and information will form part of the public record for this proceeding including on the CRTC website. I do not wish to appear at the hearing in relation to this submission. I ask that this submission be granted the same weight as that of any other party.

Thank you.

4. We are encouraged that the Commission has been recognizing individual interventions from our community members and hope that the Commission will grant each of these 25,000 interventions the same weight as it does to interventions by other parties.⁵ Without considering the needs and views of all Canadians, OpenMedia fears that narrow interests opposing the adoption of a binding universal service mandate will unduly influence the outcome of this critical proceeding about the ability of all Canadians to have a level of basic access to the Internet.
5. OpenMedia has reviewed submissions by many of the other parties to this proceeding. We are encouraged that such a wide variety of individuals, businesses, provincial and municipal governments, and non-profit groups are participating in the process. These stakeholders generally point out that broadband Internet access via fixed or mobile networks is already an essential basic service de facto, and that the Commission should recognize this reality by redefining broadband access as a basic service.

⁵See "Quick Facts" in CRTC 2015-134 Phase II press release: <http://news.gc.ca/web/article-en.do?nid=1027549>

6. The calls for a universal service mandate and higher standards of service from the OpenMedia community are echoed by a significant number of parties that have intervened in this proceeding. We accordingly urge the Commission to consider in its deliberations that a wide public consensus is already evident on the need to redefine broadband access as a basic service and adopt binding universal access obligations at service and affordability thresholds that enable all Canadians to benefit from the opportunities offered by the public Internet. OpenMedia submits that any decision to the contrary would not be consistent with the statutory objectives the Commission is mandated to pursue under section 7 of the *Telecommunications Act*.

C. Rural and Other Market Failures in the Provision of Broadband Access

7. Despite the broad public consensus on the central legal issue of re-defining broadband access, some parties have submitted interventions claiming High-Speed Access (HSA) need not be redefined as a basic service because market forces are sufficient to achieve the statutory objectives mandated for Canada's telecommunications industry. Some of these parties also claim that service quality and affordability should only be considered a public policy concern in connection with high-cost rural and remote communities. These parties include the incumbent operators of both fixed and mobile networks that dominate more than 90% of the Canadian access market.⁶
8. In its 2015-134 Notice of Consultation, the Commission appears to suggest that the quality and affordability concerns at the centre of this proceeding are largely confined to high-cost rural areas. For example, in the Notice for this proceeding the Commission states that as of 2013 "approximately 1.2 million, or 9% of, Canadian households did not have access to broadband Internet service at the Commission's target download and upload speeds."⁷ The problem, however, is that this estimate is based on indicators of the availability of *advertised* speeds that fall below the CRTC's target speeds, not on the speeds actually experienced by end-users.
9. Those parties who oppose the idea of redefining broadband access as a basic service also base their arguments on advertised rather than measured speeds. As noted in the Commission's previous BSO policy framework (CRTC 2011-291, paragraph 77), the Commission intended that these "target speeds are to be the actual speeds delivered, not merely those advertised." Whereas the Commission envisaged that its 5/1 Mbps target speeds would be accessible to all

⁶ See Figure 5.0.2 CRTC Communications Monitoring Report (2015).

⁷ CRTC 2015-134 Telecom Notice of Consultation, paragraph 33.

Canadians by 2015, reliance on data from advertised speeds is likely to under-estimate the shortfall by a considerable margin.

10. The fact that the Commission and the incumbents continue to estimate bandwidth shortfalls across Canada using advertised speeds is puzzling. Doing so will inevitably lead to unjustified claims of success in implementing the Commission's existing policy framework, as well as inaccurate and misleading estimates of the gaps that remain in achieving the voluntary minimum speed targets the Commission set out five years ago.
11. This skew related to advertised speeds creates other issues for evidence-based policymaking. For one thing, any assumption that the non-binding CRTC 2011-291 policy approach has prompted the private sector to resolve broadband market failures across Canada ignores what millions of Canadians have to contend with in their daily use of the Internet. We see little evidence to support the contention that quality and affordability issues are limited to high-cost rural communities, or that market forces have disciplined ISPs adequately in low-cost urban centres, where more than 80% of the population live and work.
12. We urge the Commission to discount the evidence based on advertised speeds as provided by the incumbents, particularly since that evidence is being used to argue against adoption of a binding universal access mandate and an industry-funded cross-subsidy mechanism that would help promote private sector investment in higher cost rural communities and address affordability of access with respect to vulnerable populations.
13. Indeed, OpenMedia submits that the Commission should adopt and implement universal service obligations that increase private sector incentives to meet rapidly growing demand by Canadians for basic Internet access services via both fixed and mobile network platforms. We do not see a contradiction between universal access obligations on high-speed access and the capacity of market forces to meet growing demand by Canadians for connectivity.
14. Evidence has been submitted into the record indicating that service quality and affordability concerns are particularly acute in high-cost rural and remote communities. OpenMedia agrees the Commission should prioritize infrastructure funding in communities prone to under-investment and market failures. On the other hand, infrastructure support for high-cost communities, in which large operators have limited incentives to invest, is perfectly consistent with the adoption of binding basic service standards available to all Canadians. In fact, adoption of universal access obligations at verifiable levels of service and applicable to the entire country could stimulate investment in network capacity and quality in areas of the country where private sector incentives to do so are currently limited.

15. During the interrogatory phase of this proceeding, OpenMedia provided large operators with the opportunity to put evidence on the record using actual network speeds to substantiate their claims a) that market failures have been confined to high-cost areas; and b) that these operators have succeeded in all regions of Canada in achieving the Commission's performance objectives. The conclusion drawn from these claims is that it is unnecessary for the Commission to redefine broadband access as a basic service, and adopt legally binding minimum service standards.

16. Unfortunately, the respondents failed to provide any direct answers to our questions about the extent which their services meet the speed targets established by the Commission. Some of the respondents directed OpenMedia to third-party sources of data, including the Commission's SamKnows research testbed (from which no public data has yet become available). Most of the respondents simply reiterated their original positions instead of providing any evidence to support their claims. As an example, in its 2 Nov 2015 response to OpenMedia, Bell said the following:

"Market forces can be relied upon to ensure that Canadians have access to broadband, except perhaps in the most rural and remote areas. Outside of these few rural and remote areas, market forces will continue to result in broadband networks from multiple facilities-based providers being made available to Canadians at affordable prices across a range of speed/usage levels."

17. To test claims about the quality and affordability of services provided by market forces, the Canadian experience must be assessed against the relevant international data. Figure 1 shows that actual broadband speeds in Canada tend to be about average for high-income countries, whereas the range of higher speed services delivered by ISPs in other countries are not available in Canada. This finding calls into question the claim that market forces are producing a sufficiently large range of differentiated services to meet the demand from Canadian consumers with diverse demand profiles.

18. Figure 2 shows that, from the perspective of affordability, Canada ranks 30th of the 34 OECD member countries when expressed as the range of fixed broadband subscription prices in each country. This is particularly evident in terms of the lower-cost subscription packages offered by operators in other countries but that are simply not available in the Canadian market. This data suggests that the claims by some parties that market forces are delivering the best possible results for all Canadians is unfounded.

19. OpenMedia urges the Commission to discount the claim that the basic service objectives of the *Telecommunications Act* can be achieved through reliance on aspirational targets, with the addition of some infrastructure funds for remote communities. In CRTC 2011-291, the Commission largely accepted these arguments from the incumbents. Our hope in this proceeding

is that the Commission will take into account the costs of this mistake and this time listen to the large number of individuals and organizations who support the adoption of binding universal access obligations and verifiable minimum service standards, as well as an industry-funded mechanism for allocating investments necessary for extending the standards of service the Commission considers appropriate to all Canadians.

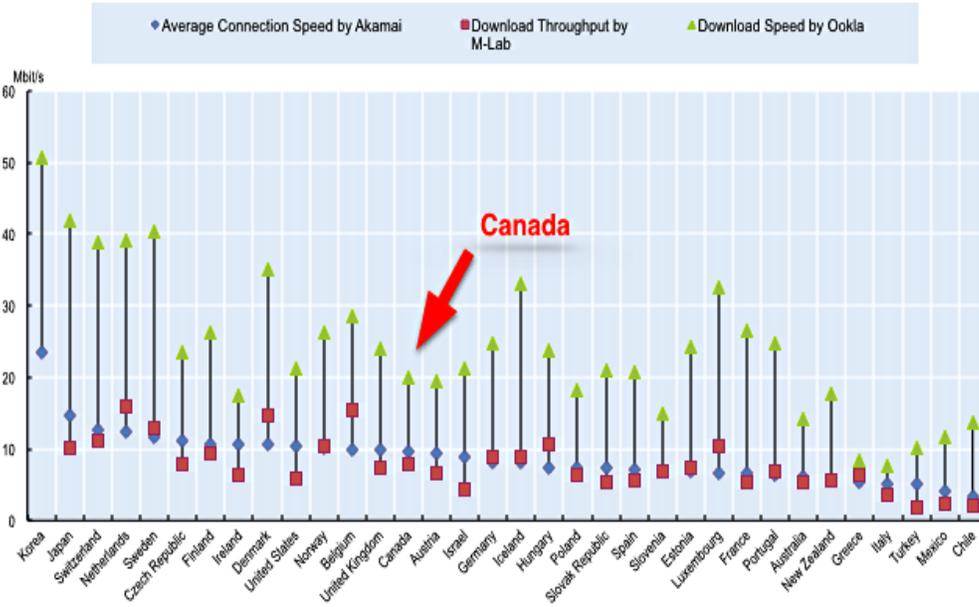


Figure 1. Range of measured broadband speeds

(Source: OECD Broadband Portal, 2015. Each shape represents results from one of the three testbeds for measuring connectivity speeds often used in policy debates, namely Akamai, M-Lab, and Ookla/Speedtest).

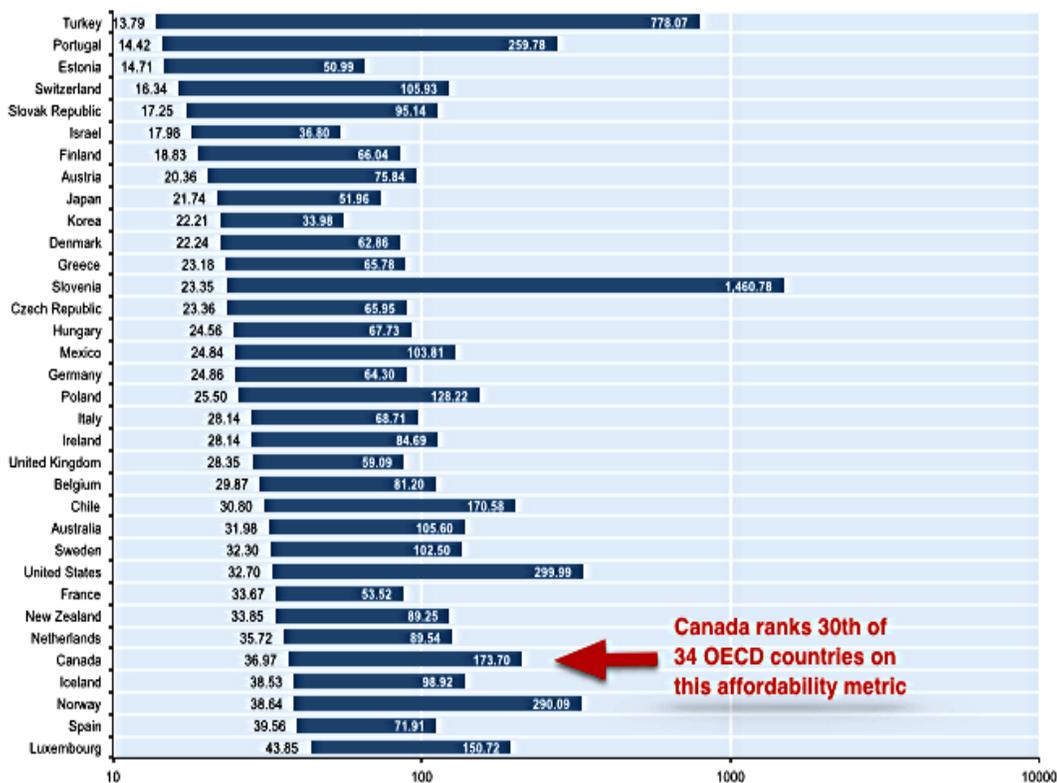


Figure 2. Fixed broadband subscription pricing range (Source: OECD Broadband Portal, USD PPP, 2015)

20. The relative lack of price differentiation for access to services indicated in Figure 2 represents a serious problem for Canadians with low incomes. OpenMedia supports efforts by various parties that have proposed targeted subsidy mechanisms to help extend affordable access to Canadians with low incomes, including persons with disabilities, children in low-income households who need the Internet for their education, and communities where employment opportunities are limited.⁸

21. Generally speaking, the international evidence provided above lends little support to the contention by some operators that affordable access to broadband connectivity is mainly a rural problem. In Canada, vulnerable populations who cannot afford to pay the high prices charged by Canadian ISPs are not confined to rural and remote communities.

⁸ For examples, please see submissions by the Elementary Teachers' Federation of Ontario (ETFO) and Media Access Canada (MAC)/Access 2020 Group of Accessibility Stakeholders to this consultation.

22. Nevertheless, OpenMedia agrees that network capacity and affordability gaps are a particularly serious problem in rural and remote communities, and therefore need to be prioritized. Part of the problem in these communities is the lack of reasonably priced transport facilities that would allow local governments and service providers to improve the access, speeds, and affordability of services in communities where private sector incentives to invest is limited (e.g., lower expected rate of return relative to low-cost urban centres).
23. OpenMedia was therefore particularly disappointed that the Commission did not choose to extend wholesale access obligations to fibre transport facilities in CRTC 2015-326. If the Commission is committed to addressing the urban-rural digital divide in Canada, then we submit that it should revisit its wholesale access decision on the duplicability of fibre transport facilities and extend third-party access obligations to fibre-based middle mile and transport facilities (including dark fibre).
24. Improving broadband infrastructure and addressing affordability concerns in remote and low-income communities, where incumbents have limited incentives to invest, needs to be treated as a policy priority by all levels of government. To encourage this shift, OpenMedia issued a crowdsourced report entitled "Casting an Open Net",⁹ in which we called on the federal government to reinvest funds raised from spectrum auctions in improving Canada's Internet infrastructure.
25. Nevertheless, even if the government does elect to reinvest the \$2 billion we have suggested into open-access, next-generation networks, there is no doubt that substantial private sector capital expenditures will also be required, particularly in high-cost rural and remote communities. The expected rates of return on infrastructure investments in high-cost, low-revenue rural communities are unlikely to attract private investment. The Commission thus has an important role to play in addressing this element of Canada's digital divide by requiring dominant operators to put a portion of their revenues from low-cost urban areas into rural infrastructure development.
26. OpenMedia generally supports an industry-funded model for cross-subsidizing rural connectivity, as proposed by various parties representing under-served communities in this proceeding. An industry funding mechanism should be a source of sustainable and predictable cross-subsidies from low-cost urban customers to relatively high-cost communities, and it should complement one-time infrastructure infusions from the federal budget. OpenMedia takes issue with the

⁹ See: OpenMedia. Casting and Open Net: A Leading Edge Approach to Canada's Digital Future" URL: <https://castinganopennet.ca>

incumbents' argument that the scope of rural market failures is too small to require industry-funded cross-subsidies and that any future subsidies needed to achieve basic service objectives in relatively higher-cost rural and remote communities should come strictly from the federal budget.

27. In order to maximize the impact of public funds on private sector investments, the Commission should ensure that any future broadband subsidies incorporate open-access obligations and require that operators provide minimum service quality guarantees based on actual speeds (versus the current maximum link speed “up to X Mbps”). Failing that, we risk a scenario in which rapidly growing consumer demand for network resources will quickly consume any capacity built using public funds, and under-provisioned access networks will be sold to customers on a best-effort basis.¹⁰ Such open-access obligations, directed at both access and transport facilities, are needed to ensure that non-incumbent operators, including municipalities and non-profit cooperatives, can enter rural markets and compete on quality and price by interconnecting to publicly subsidized essential network facilities.
28. Substantial evidence from various parties from rural and remote communities support OpenMedia's contention that it will be necessary for the Commission to re-evaluate its decision in CRTC 2015-326 regarding fibre transport if it hopes to resolve the issues affecting high-cost remote, rural, and even suburban communities. In relatively higher-cost rural areas, it is neither feasible nor economically desirable for multiple operators to duplicate fibre transport facilities.
29. If the Commission does not elect to reverse its determination that transport facilities are duplicable and that wholesale access obligations on fibre transport facilities are inappropriate, then it is likely that the size of the industry-funded cross-subsidy mechanism it will have to adopt in order to address rural market failures will need to be substantially larger.
30. If the Commission does in fact leave its determination on transport facilities intact, then OpenMedia recommends that third-party access obligations with sufficiently low wholesale prices should be imposed on both fibre transport and access facilities that receive any public subsidies. While incumbent incentives to invest in high-cost communities with low average incomes are likely to remain limited, open-access obligations will provide smaller service providers, cooperative associations and local governments with some opportunity to invest in the network access their residents and businesses in their communities require and demand. Open-access

¹⁰ See for example: Eastlink chided by Premier Stephen McNeil over rural Internet cap. CBC News. 9 July 2015. <http://www.cbc.ca/news/canada/nova-scotia/eastlink-chided-by-premier-stephen-mcneil-over-rural-internet-cap-1.3144565>

obligations can also have the added benefit of addressing rural affordability concerns through enhanced service-based competition on top of publicly financed physical infrastructure.

D. From Best Effort Targets to Minimum Service Quality Guarantees

31. In CRTC 2011-291, the Commission stated that its 5/1 Mbps basic service objective was to be based on actual, rather than advertised speeds.¹¹ The Commission also wrote in that decision that it intended to monitor progress towards its stated goals. As far as we are aware, however, there has been no independent assessment by federal policymakers of gaps between actual end-user speeds and the standards set by the Commission. Although the Commission has been proceeding since May 2015 with deployment of the SamKnows research test bed, data from this initiative has still not been made public.
32. Given that the large ISPs appear to interpret the Commission's 2011 minimum service levels as aspirational rather than binding, we believe it will be important for the Commission to adopt a basic service regime that includes verifiable minimum service guarantees covering at a minimum download speed, upload speed and latency, with stipulations as to what constitutes an affordable price for this universally accessible basic service package. OpenMedia submits that the approach taken by the Commission in the Let's Talk TV proceeding with respect to "skinny basic" subscription TV obligations provides a good precedent for ensuring that all Canadians can access basic broadband Internet services at a reasonable price.
33. It is important to note that advocating a more robust basic service framework that includes minimum service quality guarantees is entirely compatible with aspirational minimum speed targets such as the 25 Mbps download and 3 Mbps upload speeds called for by several stakeholders, including OpenMedia. We agree with parties that point out the existing minimum service targets of 5/1 Mbps are not internationally competitive, and are too low for meeting the growing demand for Internet applications that require higher, more symmetric connectivity (e.g. media streaming, cloud computing, video messaging, e-health, etc.).
34. Legally binding minimum standards would provide short-term incentives for ISPs to meet the growing demand for bandwidth-intensive Internet applications. Long-term aspirational targets can provide a useful benchmark for policymakers and ISPs to plan ahead, monitor progress, and adjust their policies and strategies accordingly in order to achieve the long-term objectives.

¹¹ Telecom Regulatory Policy CRTC 2011-291, paragraph 77.

35. In order to help the Commission better understand compliance with its 2011 targets and possible future aspirational targets, OpenMedia engaged extensively with six of the largest ISPs during the interrogatory phase of this proceeding (see OpenMedia interrogatories to Bell, Rogers, Telus, Cogeco, Shaw, and Quebecor; their responses; and requests for further disclosure by OpenMedia). We inquired about the feasibility of developing a basic service framework that includes some form of minimum service guarantees for individuals and business that require such guarantees.
36. While the dominant providers are reluctant to estimate the extent to which they have met the Commission's existing targets, they generally acknowledge it is feasible for them to guarantee a minimum level of service on demand - and in fact do so for large business customers, as we explain below. By requiring operators to provide at least one service package that includes such guarantees at a reasonable price, the Commission would expand the range of options available for residential and small and medium enterprises (SMEs) for whom "best effort" services are not adequate.
37. We would like to draw the Commission's attention to two sets of questions which we posed to the dominant operators:

OpenMedia Question 1: CRTC's current speed targets specify that minimum actual (versus advertised) service quality levels of 5 Mbps download and 1 Mbps upload should be available to all Canadians However, under-investment and under-provisioning by operators mean actual speeds in high-traffic periods can be significantly lower than advertised levels.

A. What are the average and median download and upload connection speeds that you delivered to your fixed broadband customers in the residential market in peak traffic periods (6 PM to 12 midnight) over the three months prior to the start of this proceeding?

B. What are the average and median download and upload connection speeds that you delivered to your mobile broadband customers over the three months prior to the start of this proceeding?¹²

C. Between 6 PM and 12 midnight, what percentage of your fixed broadband customers achieved connection speeds that are below the 5/1 Mbps minimum service quality threshold specified by the CRTC?

D. Estimate how your answer to question C above would change if the CRTC were to increase minimum service standards to 25 Mbps download and 5 Mbps for upload speeds?

¹² Relevant only for mobile operators.

38. None of the respondents provided us with any concrete answers about the extent to which they have achieved the actual speed targets the Commission set out in 2011-291. Some of the respondents directed OpenMedia to third-party sources of data, including the CRTC SamKnows research testbed, from which no data is yet available. Others argued that the type of estimates that we requested are not available, and even if they were, they would have to be considered confidential. OpenMedia then asked the Commission to require the six parties to collect and convey the requested data, or at least some estimates that would allow the Commission to verify claims that aspirational targets are sufficient, if only in confidence. The Commission chose not to require the operators to provide any such answers, despite our strong conviction that this kind of internal, network-level data will be crucial to evidence-based decision making by the Commission in this proceeding.
39. In the absence of better data from the operators or public agencies, Figures 3 and 4 use data from the M-Lab Network Diagnostic Tool (NDT) to provide the Commission with a perspective on the capacity of particular operators to achieve current and future speed targets.¹³ The M-Lab testing platform has been adopted by the Canadian Internet Registration Authority (CIRA) for its Internet performance test as it represents a state of the art tool for evaluating a wide range of network performance and diagnostic metrics.¹⁴
40. As shown in Figures 3 and 4, the extent to which operators have met the CRTC's 2011 speed targets is heavily conditioned by the broadband technologies they use in the last mile. In general, cable companies are further along in achieving the minimum targets specified by the Commission, while substantially larger proportion of end-users who have to rely on the DSL networks of Bell, Telus, MTS, and SaskTel continue to lag behind in achieving the speed targets. This is particularly the case in terms of upload speeds delivered by legacy DSL network operators.

¹³ <http://www.measurementlab.net/>

¹⁴ Web 100 set of metrics as defined in <https://www.ietf.org/rfc/rfc4898.txt>

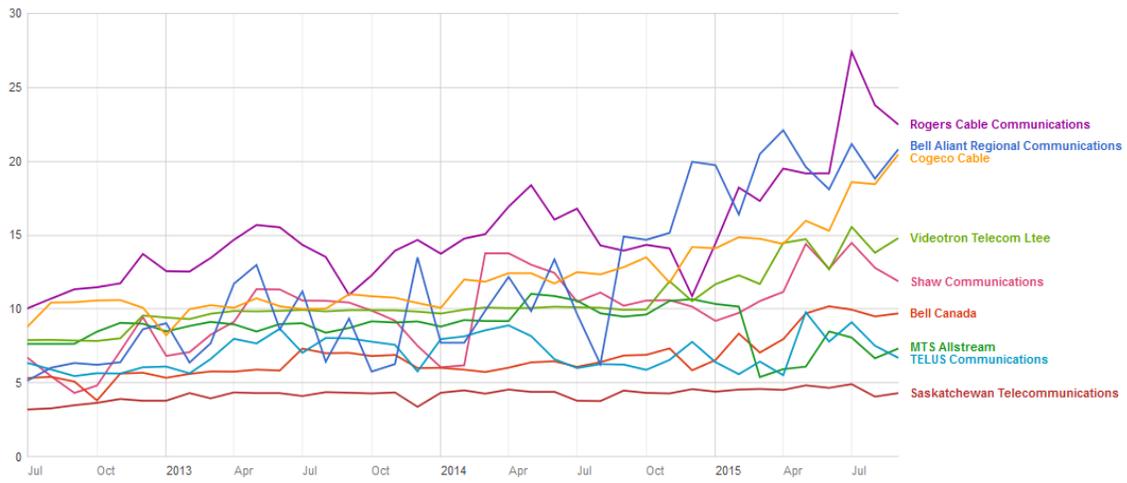


Figure 3. Median download speeds, Mbps. Source: M-Lab, Google Public Data Explorer

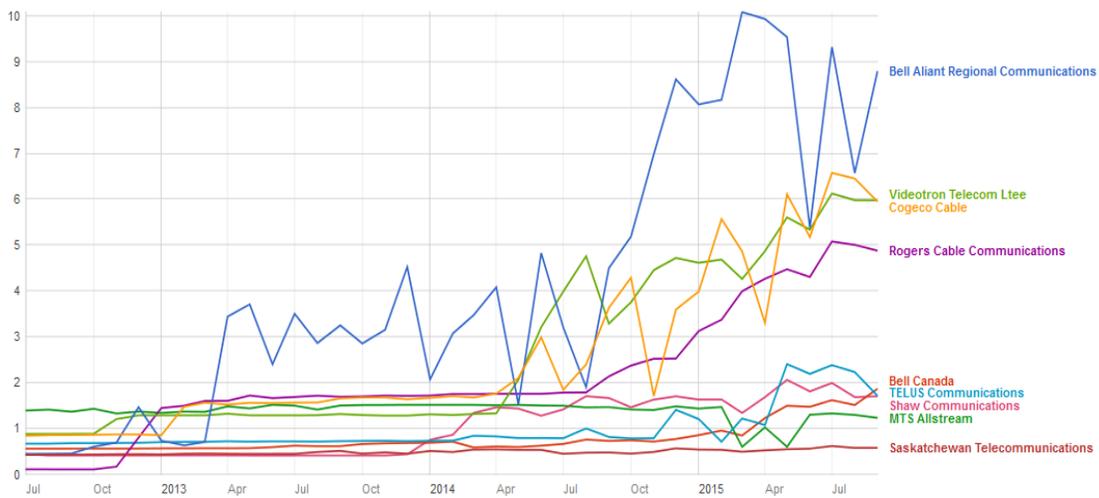


Figure 4: Median Upload Speed, Mbps. Source: M-Lab, Google Public Data Explorer

41. It is important to note that the above figures reflect the median speeds in tests conducted at many different times of day, including low-traffic periods when relatively few end-users are using bandwidth-intensive applications and actual best-effort speeds may start to converge with advertised ones. Consequently, the extent of the gap between actual speeds in high-traffic periods and the Commission’s 2011 targets is likely to be larger than what can be inferred from the data above. As with other speed testing methodologies such as Ookla’s Speedtest and SamKnows, M-Lab NDT has some limitations in measuring network performance. Nevertheless, this data still provides a relative indication of the extent to which large operators are achieving speed targets the Commission set out in CRTC 2011-291.

42. Moreover, unless incumbent DSL operators accelerate their rates of FTTP deployment substantially, some are unlikely to achieve aspirational speed targets higher than 5/1 Mbps anytime soon. Although it will be particularly challenging for this class of operators to achieve a 25/5, or even a 10/2 speed target for a majority of their customers, OpenMedia supports efforts by other parties to increase future targets that encourage poorly performing operators to invest more in new technologies and greater network capacity.
43. The data presented in Figures 3 and 4 also helps explain some of the discrepancies in the positions of the parties about the need for the Commission to adopt higher aspirational targets. Legacy DSL providers such as Bell and Telus, which have failed to make extensive investments in next-generation FTTP networks and are lagging significantly behind cable providers in terms of median service quality, tend to argue that the 2011 speed targets are sufficient for all mainstream online activities. OpenMedia submits that keeping the current approach based on aspirational targets as suggested by some operators will only serve to reward infrastructure providers that have failed to make sufficient investments in the next-generation FTTP networks required to future-proof Canadians' access to the public Internet.
44. Higher standards can have the benefit of motivating lagging operators to invest more in the quality of services they offer to customers. We therefore disagree with the parties that claim a basic service regime should be based on the lowest common denominator acceptable to a limited number of dominant operators that are falling behind their competitors.
45. We note here that Professor Fenwick McKelvey of Concordia University has submitted valuable geo-located Internet performance measurements into the record (based on 2014 M-Lab data) that will enable the Commission to assess the extent to which services in particular communities across the country have achieved its 2011 targets or not. We believe Internet measurements of actual speeds and other relevant indicators of actual service should be used as the basis for identifying infrastructure concerns in under-served communities.
46. Because of the limitations of aspirational targets and voluntary compliance, OpenMedia recommends the Commission mandate all operators to provide at least one basic service subscription package that includes minimum service guarantees across time and applications at a reasonable price.

E. On the Feasibility of Minimum Service Quality Guarantees

47. To better understand the feasibility of moving to a basic service framework that provides some level of guaranteed sustained speeds, OpenMedia also used the opportunity of the interrogatories to ask dominant operators about their access network capabilities:

OpenMedia Question 3: "Many advanced personal and business applications require symmetric connectivity speeds and minimum service quality guarantees. Advanced network policy management technologies which you may have already adopted, or can adopt in the future, enable fine-grained quality of service differentiation and delivery of minimum guarantees. Your current "best effort" offerings in the residential and business markets do not guarantee any basic minimum level of service to end users. Would you be willing to offer a basic package in the retail market that includes minimum service quality guarantees at a symmetric 5/5 Mbps download/upload for users that require more certainty about their level of service? If yes, what price do you think would be reasonable to charge for a monthly subscription that includes such an assurance?"

48. Although there is some variation in the answers, the six large ISPs generally confirmed their ability to guarantee a minimum level of service - and they in fact do so on demand for large businesses, though not for the residential or SME business market. The respondents claim they do not offer service guarantees in the retail residential and SME markets because there is no demand for such guarantees. They do so, however, without providing any evidence to substantiate this claim, despite further requests by OpenMedia asking for evidence that Canadian households and SMEs in fact prefer "best effort" services over minimum reliable speeds.

For example, in response to OpenMedia inquiries about this issue, Rogers (2 Nov 2015) states that:

".....Rogers wireline Internet services marketed to residential and small/medium enterprise (SME) customers do not currently include service tiers that provide symmetric download/upload speeds. Rogers does offer a fixed wireless service using 2.5 GHz and 3.5 GHz spectrum that provides symmetric 10 Mbps service.....Rogers offers large enterprise-grade services that can be tailored to an individual customer's requirements. These can include services with symmetric data rates, as well as terms and conditions and service level agreements (SLAs) respecting service availability. The prices, terms and conditions of such arrangements are customer-specific, confidential and consistently treated in a confidential manner. Disclosure of this information could prejudice the position of Rogers in the highly competitive enterprise business market by providing information to competitors about specific arrangements Rogers provides to customers in this market segment. Disclosure would enable Rogers' competitors to better design targeted services and campaigns to address this segment, thereby causing it specific direct harm. Any potential public benefit to the disclosure of the detailed customer-specific information does not outweigh the specific direct harm to Rogers resulting from such disclosure."

49. Similarly, in response to the same question by OpenMedia, Shaw (2 Nov 2015), states that:

"Shaw has no current plans to offer a service with symmetric 5 Mbps download and upload speeds with minimum service quality guarantees. As such, we have not investigated the feasibility, cost or market penetration of the proposed service. Shaw offers a variety of services to business customers, including services with symmetric download and upload

speeds and service level agreements. Pricing for these services varies based on the specific needs of the business customer, such as speed, availability, data and location.”

50. As in the case of cable companies, Telus confirms that it would be able and potentially willing to offer the type of basic service package that includes symmetric speeds and a minimum service level guarantee in the residential and SME markets:

“TELUS currently offers symmetrical broadband offerings to our business customers through the TELUS Managed and Customer Managed service offerings. Although a 5/5 Mbps plan is not specifically offered to business customers, TELUS offers symmetrical plans at speeds both above and below the OpenMedia suggested 5/5 Mbps speed. Pricing for this service is dependent upon a number of factors specific to the customer’s needs including customer location, service band, usage model, type of technology delivering the service (e.g., T1 or fibre, etc.), and contract length.

At this time TELUS does not offer residential retail customers broadband plans at symmetric broadband speeds; however, TELUS continues to respond to the market and customer interest in these services. If residential demand for symmetric offerings becomes substantial, TELUS may choose to offer symmetric broadband in the future to residential subscribers.”

51. In contrast to the above respondents, Bell (2 Nov 2015) appears to disagree with the fact that OpenMedia characterized their offering only as “best effort”. Although it might be challenging for Bell to admit to the fact that it does not offer retail users minimum guarantees of service, other operators appear to acknowledge this important reality facing residential and business users that would rather have some assurances about the level of service they are receiving. OpenMedia submits that the actual speeds delivered by Bell fall significantly short of its cable competitors, which explains in part its denial strategy¹⁵:

“You refer to our in-market Internet products as “best effort” offerings. This is a mischaracterization. For each of our in-market Internet product offerings we clearly set out a minimum download speed and a minimum upload speed, the maximum download speed and the maximum upload speed and, in each case, the speed which most of our customers who subscribe to the product obtain. These speeds are measured from our network to the customer’s modem. At installation, we confirm that the minimum speeds can be delivered to the customer’s modem. If, for whatever reason, the minimum speeds cannot be delivered to the customer they are advised to downgrade to a lower speed product. For example, for Fibe 25 the minimum download speed is 25 Mbps, the minimum upload speed is 0.9 Mbps, the maximum download speed is 25 Mbps, the maximum upload speed is 10 Mbps and most customers get 25 Mbps down and 7.5 Mbps up.”

52. As suggested in its answer, Bell appears to burden its customers with determining if the post-installation speeds it has promised are actually delivered. If Bell’s “best effort” service delivery

¹⁵ As documented in Figures 3 and 4. The notable exception to this are speeds delivered to Bell Aliant customers in Atlantic Canada where there has been a larger shift from legacy DSL to FTTP networks than the rest of the country (due to the fact that copper plants in Atlantic Canada were some of the oldest and it was cheaper to decommission them faster).

level is not good enough, it gives customers who manage to identify the problem - and succeed in convincing Bell they are not getting what they are paying for - the option to downgrade their service. OpenMedia submits that this passive approach to ensuring promised speeds are actually delivered is neither efficient for Bell, nor is it in the interest of residential or business consumers.

53. Instead of provisioning sufficient network resources to deliver what they originally had promised, the incumbents appear to rely on customers to ensure the services they apparently require and expect to receive are in fact delivered. Since end-users cannot directly invest in the services they need, the risk of under-investment is transferred to the wrong party in the contract (one that cannot do anything about the problem). OpenMedia submits that by adopting the type of basic service package that we have outlined, the Commission can benefit both operators and consumers by allocating the risks of under-provisioning in retail contracts to the right parties.
54. The example offered here illustrates an issue discussed throughout this submission regarding the utilization and confusion surrounding advertised versus actual speeds. Although it is somewhat difficult to parse Bell's convoluted prose in the example noted above, it appears to suggest that minimum and maximum download speeds for its Fibe 25 service are both 25 Mbps and that "most customers" get this 25 Mbps. Furthermore, it suggests that "most customers" get 7.5 Mbps upload speeds, which is higher than the minimum of 0.9 and lower than the maximum of 10 that has been promised.
55. While OpenMedia has no information on what percentage of Bell's customers subscribe to this service and other service tiers, performance measurements presented in Figures 3 and 4 using M-Lab data suggest that a large majority of Bell's customers get actual speeds that are far below those stated by Bell in the example it uses to our response. OpenMedia submits the Commission should discount claims about the adequacy of market forces based on advertised speeds when it is assessing whether it should redefine broadband Internet access as a basic service, as well as in other regulatory matters.
56. While some smaller incumbents may not have yet invested in network control technologies that allow them to deliver minimum service quality guarantees, operators that dominate more than 90% of the Canadian market appear to have already installed such technologies and should be able to deliver a basic service package that includes minimum service quality guarantees. By mandating all large operators to offer such a basic service package in the next year or so, the Commission will substantially increase the incentives of poorer performing operators to invest in network capacity and advanced broadband technologies needed to meet the rapidly growing demand by Canadians for network resources.

F. Elements of Basic Service: Quality and Affordability Considerations

57. The incumbents argue that they only offer best-effort plans that advertise high connectivity speeds, yet do not guarantee these speeds, because of a lack of demand by consumers. While some consumers may be satisfied by best-effort plans that are available to them in the market, for those who would rather have sustained and reliable speeds, the responses by incumbent operators document that today there is no such option available in the market. We also believe that, given the option, many consumers would be much happier with an access plan that offered guaranteed levels of service, even if these levels were significantly lower than the best-effort speeds advertised as part of other plans. Many Canadians stand to benefit from being able to count on the speeds they get from their ISP. A notable example is Canadians with disabilities, who require service guarantees to support applications designed for their needs in a safe and reliable manner (see submission by MAC/Access 2020 Coalition). Other examples include the utilization of video conferencing for telecommuters who work from home; small businesses that rely on cloud computing to reduce costs and increase productivity; and the provision of e-education and e-health services on multimedia platforms.¹⁶
58. In this context, OpenMedia supports the proposal by disabilities stakeholders that all operators should be required to offer at least one reasonably priced plan that includes minimum service guarantees for end-users who require such guarantees for their personal and business applications.¹⁷ As noted above, OpenMedia asked the six operators that dominate regional markets around the country what they thought would be a reasonable price for a basic 5/5 Mbps service that included minimum guarantees, but we did not receive any direct responses to this question.
59. Since it appears that many ISPs are currently incapable of offering even a 1 Mbps median upload speed (see Figure 4 above), any mandate for minimum speeds will have to take account of the wide range of technical readiness in the Canadian broadband market. Smaller operators who have not yet invested in advanced network control technologies that enable them to guarantee a sustained minimum level of service will be challenged by any basic service mandate that includes even relatively low minimum service standards if speed guarantees are introduced. To achieve a credible basic service framework, it will be critical to develop a sustainable funding mechanism that promotes private sector incentives to upgrade their networks to the extent that smaller incumbents and potential entrants can deliver minimum service level guarantees.

¹⁶ For example, see submission by the Ontario Government to this consultation.

¹⁷ For example, see Media Access Canada/Access 2020 submission to this consultation.

60. Nevertheless, OpenMedia submits that unless the regulatory framework challenges relatively poorly performing operators to do better, it will fail to be effective in encouraging them to invest in network capacity capable of sustaining reliable connections to customers. We therefore urge the Commission to explore the extent to which ISPs are willing to move away from their promises of mere best effort service and start to offer residential and SME consumers a basic service package that includes minimum guarantees. OpenMedia submits the Commission should not settle for the lowest common denominator when determining its policies and should be willing to challenge poorly performing service providers to deliver higher standards of service.
61. Quite apart from the importance of basic service quality to all Canadians and to smaller businesses that cannot afford expensive quality of service guarantees, Section 7 of the *Telecommunications Act* requires the Commission to consider the affordability of basic services. Various parties to this proceeding, including the AAC, have proposed that the Commission adopt an industry-funded approach to addressing rural infrastructure under-investment and to helping make basic access more affordable for vulnerable populations with low incomes. OpenMedia agrees with this multipronged strategy of funding rural broadband development and access subsidies for low income Canadians from revenues of the large incumbents that dominate markets in low-cost urban centres of the country. While more federal infrastructure funds would be helpful to cover some broadband development costs in rural communities, it is not likely to be sufficient and cross-subsidies from dominant operators would have to be collected if the Commission hopes to implement a framework that helps address Canada's extensive urban-rural digital divide.
62. While an "affordability" fund, tax credits for low income Canadians, and other mechanisms for achieving the affordability objectives of the *Telecommunications Act* are desirable to adopt, OpenMedia submits that such mechanisms will not be sufficient. We urge the Commission to look at affordability more broadly and recognize that policies that promote market transparency, accountability of sellers for the quality of their service, and competition will be required to ensure all Canadians have access to affordable services and can participate in the digital economy.
63. As noted earlier, Canadians pay some of the highest prices among OECD countries for middle of the road service quality. Importantly, in the context of concerns about affordable access in low income communities, the range of cheaper competitive options available in the Canadian market appears to be limited relative to other OECD countries. This feature of market outcomes in Canada supports calls for a funding mechanism targeting low income Canadians, such as the general fund proposed by AAC or the focused one by MAC/Access 2020 to target Canadians with

disabilities. It also contradicts claims by operators that market forces in Canada are sufficient to produce a big enough range of price and quality combinations.

64. OpenMedia submits that policies which encourage operators to offer services of a certain minimum quality at a reasonable price would help address affordability concerns for Canadians who will not qualify for any targeted subsidy mechanism the Commission may choose to adopt in this proceeding. In this light, the Commission should consider an industry-funded rural or affordability cross-subsidy mechanism as a complement, and not a substitute for, adopting verifiable minimum service quality standards and determining what should be a reasonable price for a basic service package that includes such standards. Unless service providers that dominate the Canadian urban and rural markets are made accountable for the services they deliver, they are likely to continue to deliver sub-par service quality for world class prices.
65. Similarly, as detailed in our recent submission to the Governor in Council (GiC) in support of the CRTC regarding Bell's appeal of the new wholesale framework, open access obligations that enable over-the-top (OTT) competition will be critical for addressing concerns about affordable access to basic services of sufficient quality to all Canadians. In an uncertainty introduced by ongoing wholesale implementation proceedings, we recognize that Bell's appeal to the GiC casts a shadow on the implementation of the Commission's wholesale decision. OpenMedia urges the Commission to forbear from phasing out existing wholesale access obligations until such time as there is sufficient evidence to demonstrate that the new disaggregated regime is producing its intended results. Similarly, in this proceeding, we urge the Commission not to phase out existing basic service obligations, for instance on telephone services, without an extensive analysis of available alternatives that ensures no Canadians lose access to services they consider essential.
66. OpenMedia submits that a basic service regime that promotes market competition by making service providers more accountable for the quality of service they actually deliver is likely to help protect vulnerable populations from the common practice of overestimating actual service quality relative to the advertised rates.

G. Data Caps and Affordability

67. Finally, in the context of claims about the range of affordable options that market forces are allegedly delivering, it is important to note that the widespread use of data caps distorts measures of affordability, particularly in relation to the inexpensive plans that appeal to low income Canadians. Although various operators currently offer some broadband plans that have no data cap or sell no-data cap plans on top of basic service plans, these offerings tend to be more

expensive. For low income Canadians who subscribe to lower cost plans due to their affordability, using popular, bandwidth-intensive applications like video streaming can bring them quickly to their data cap thresholds and associated overcharges. Consequently, for basic broadband access, many of the low priced offerings on the market are not viable alternatives for Canadians with low incomes, particularly families where a number of people use the same plan.

68. OpenMedia therefore urges the Commission to pay particular attention to the nearly universal use of data caps and adopt policies that motivate operators to remove them. In terms of basic service objectives, data caps are undesirable because they suppress demand and act as a disincentive to service providers to invest in more network capacity and the next-generation FTTP networks needed to meet the rapidly growing need for very high speed, symmetric connectivity.
69. It is unfortunate that data caps have been legitimized in Canada as policy tools and not simply as pricing mechanisms. We believe that the Commission's original policy rationale for institutionalizing the use of caps as a form of economic Internet traffic management practices (within the framework of CRTC 2009-657) was based on assumptions that have proven to be unsound. First, the need for caps in traffic management, as originally claimed by the incumbents, has been debunked.¹⁸ Network congestion is a problem stemming from peak traffic loads and under-provisioning by service providers, not from the individual usage patterns of so-called bandwidth hogs.
70. A second assumption made about caps was that they were a good policy tool because they *"match[ed] consumer usage with willingness to pay, thus putting users in control and allowing market forces to work"* (CRTC 2009-657, preamble). Although there has been little research on this issue in Canada, recent research from the U.S. has now shown that, far from being willing to pay or feeling in control, consumers are confused by caps and, because they fear the financial consequences of being online "too much," are discouraged from using the Internet as they otherwise might.¹⁹ Much like the example provided by Bell and detailed above regarding the option to downgrade if actual speeds are below those promised, data caps work to suppress demand for basic communications services and Internet applications, particularly for low-income users.
71. OpenMedia submits that data caps discourage low-income Canadians from trying out new or even established services, while compounding confusion over the extent to which they can afford

¹⁸ Artificial Scarcity, Open Technology Institute. <https://www.newamerica.org/oti/artificial-scarcity/>

¹⁹ Ibid.

to participate in the digital economy. Data caps also serve as a tremendous obstacle to affordability, a concern at the forefront of this proceeding. Removing data caps altogether to accommodate the rapid growth in demand by Canadians for network resources will be an important ingredient in an effective basic service framework that a) improves the affordability of basic services; and b) encourages service providers to invest in network capacity, rather than pricing strategies that have the unfortunate effect of suppressing demand.

H. Conclusions

72. It is time for the Commission to confront an inescapable social and economic reality: most Canadian households and businesses now take for granted that broadband connectivity is an essential communications service they cannot live without. Thus, the Commission must include broadband Internet access as a basic service under the *Telecommunications Act*. By doing so, the Commission will be taking a bold step towards freeing Canadians from the distorted, oligopolistic forces that make our poor quality broadband service offerings some of the most expensive in the industrialized world.
73. Throughout this proceeding, the Commission and intervenors have been confronted with significant questions about costs: the costs of connectivity; the costs of investment; the costs to the incumbents' bottom line; and the costs to decision-makers who must wrestle with the conflicting interests apparent in this proceeding. But as a small handful of entrenched interests work to convince us that broadband access should not be considered a basic service because market forces are sufficient, we urge the Commission to return to a question that we believe lies at the heart of this proceeding: What is the cost of leaving Canadians behind?
74. Canada is transitioning to a new economy. This will unquestionably require significant intellectual, financial, and political will. There is no shortage of strong ideas to support this transition on the public record of this proceeding. And there is no doubt, at least in the eyes of OpenMedia, that the incumbents' claim that there's "Nothing to see here, folks," has been debunked. Now what is needed is action, and this is where the Commission has a significant role to play.
75. The proper, equitable, and forward-looking path is clear. Just as Canadians banded together to build our national railroads, highways, and telephone systems over the past 150 years, the Commission must now take the bold steps necessary to ensure that the key network infrastructure of the 21st century fosters economic growth and promotes the many non-economic activities that bring Canadians together and makes the Internet so great. This task starts by ensuring that Canadians lacking access to reliable and affordable broadband access do not

become second-class citizens, casualties of waiting for the incumbents to step in. Indeed, the record of this proceeding has shown the disastrous consequences of the “wait and see” approach, whether that be Canada’s low-income families remaining offline in huge numbers, or middle-income families and businesses being price-gouged and held ransom by outrageously low data caps and slow speeds.

76. As we see it, the Commission faces a fork in the road: it can either set out effective rules that ensure that all Canadians can participate in the social and economic benefits of the Internet; or it can empower the incumbents to in effect regulate our market through high prices, low speeds, oppressive data caps, and a troubling digital divide. The path the Commission chooses to take here is a choice we believe it will be remembered for.

77. OpenMedia respectfully requests to appear at the oral hearing to support our position and speak on behalf of the over 36,000 Canadians who have shared their perspectives with us. We hope that the CRTC will listen to the breadth of individual Canadians and businesses who have reached out to you in hopes of securing our online future. By listening to these citizens, and following the recommendations made by OpenMedia and other intervenors throughout the course of this proceeding, we have every confidence it can deliver on its promise to see “Canadians firmly placed at the heart of their communication system.” We thank the Commission for its time and consideration thus far.

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