Telecom Notice of Consultation CRTC 2011-77

Review of Billing Practices for Wholesale Residential High-Speed Access Services

CRTC Reference No.: 8661-C12-201102350

Oral Comments of OpenMedia.ca

July 12, 2011

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Good morning.

1. Mr. Chairman, Commissioners, my name is Tamir Israel, staff lawyer with CIPPIC, the Samuelson-Glushko Canadian Internet Policy & Public Interest Clinic, and here with me today is Steve Anderson who is the executive director of OpenMedia.ca.

2. I wanted to thank you for giving us the opportunity to come here today to participate in this proceeding. It touches on issues that are very important to OpenMedia.ca and to CIPPIC, so we are grateful for this opportunity.

3. To start off this morning, Steve is going to talk a bit in general terms about some of our concerns that are raised by this proceeding, and then I will address some of the questions you have put to us in your Commission letter last week in more detail and tie in the concerns he raises at that point.

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4. Thank you for having me and for holding this important hearing.

5. I appear before you as executive director of OpenMedia.ca

6. Openmedia.ca is a National, non-partisan, non-profit organization engaging Canadians in governing and safeguarding the internet for a positive digital future.

7. I will provide a social context and a broad citizen's perspective on the matters raised in this public notice, and lay out the basic principles of our submission.

8. Over the last few months, four hundred and ninety-one thousand Canadians have signed OpenMedia.ca's Stop The Meter Petition. Of those, nearly one hundred thousand followed up and sent in submissions for this hearing. That's one hundred thousand Canadians who are directly appealing to you on this issue. As you know, that is an unprecedented level of citizen engagement for a telecom issue. The public cares, and the public is watching. They're depending on you to make the right choices.

9. Acting on behalf of Canadians, OpenMedia.ca and CIPPIC have put forward a submission that is deeply facts-based, but also informed by these hundreds of thousands of Canadians, from policy experts, to small business owners, to independent ISPs, to people with disabilities just trying to scrape by. Their concerns are valid, and there is clear evidence to back them up: Canada's digital future will thrive through more competition, more choice, and ultimately a non-metered and affordable Internet like our global counterparts.

10. I'm pleased to appear before the commission because evidence shows that an engaged and empowered regulator is critical. As a recent Berkman Centre report notes, "an

engaged regulator practically enforcing open access policy is more important than the formal adoption of the policy".

11. Based on research and clear evidence, the outcome of this hearing should be a wholesale pricing regime that is cost-based, transparency-based, and fact-based.

12. Firstly, Cost-based so that Canadians have real choice for Internet access, wherein independent ISPs – with pricing autonomy – offer competing pricing models, serving as alternatives to incumbent telecoms that currently dominate. Cost-based to enable competition and thus lower prices. Cost-based because we cannot afford to allow a few companies to stifle competition and impose a stranglehold on the critical Internet access market.

13. Secondly, the outcome of this hearing must be transparency-based because it's crucial we have a market based on actual costs and not inflated numbers . We've seen several pricing schemes floated, the most recent being 19 cent per gigabyte, down from the previous asks of up to $2.50 per gigabyte. We clearly need to have some kind of mechanism in place that shows us the actual costs for telecom companies– whether it be through public disclosure and public scrutiny, or independent costing audits.

14. And lastly, the outcome of this hearing must be fact-based.

15. If we are going to move forward in a positive direction, and I think we can, we need to operate based on the actual reality before us. We can no longer allow decisions to be clouded by mischaracterizations of industry realities.

FACT 1: We are simply NOT facing a "bandwidth crisis". Growth rates have actually *decreased* in recent years, slowing to about 40% per year.

FACT 2: Big telecom's investment in network infrastructure in Canada as a percentage of revenue has failed to keep pace with our OECD counterparts.

FACT 3: ISPs *can* deal with demand through network investment. We don't need metered pricing to deter customers from using the internet.

FACT 4: Cutting edge business models, from cloud computing, to real time interactive media, to peer-to-peer applications -- require MORE internet usage, not less.

16. We should not be deterring average Canadians from using more Internet.

17. As the recent OpenMedia.ca report Casting An Open Net makes clear, Canada is falling behind on several key Internet metrics when compared with our OECD counterparts, most

strikingly in price. The thing Canada does lead on is capping internet usage – that's something none of us should be proud of. In countries like Japan, the UK, Sweden, and Chile, open access policies, including those that provide independent ISP pricing model autonomy, play a critical role. Open access policies, market choice, and mechanisms to ensure ISP transparency, are pushing these countries ahead of Canada in telecom performance.

18. Functional marketplaces meet demand by increasing supply — not by squashing demand and seeing who can gouge Canadians most. It is not ok for big telecom companies to invest less of their revenue than their global peers and then claim they need to gouge Canadians to make up for this waning investment. The impact of this approach on Canadians is real and it sometimes severe.

19. Listen to the submission from Vince Dwyer: "I am a disabled father of 7 and [a] metered internet is unfair for parents of multiple children of school age. They all use the internet as a learning tool and it is mandatory for some of the classes. I have 7 children and get a disability cheque of 1300 hundred dollars a month. I`m barely scraping by as it is. Please stop the metered internet from happening as lower income families will suffer and our children will suffer."

20. It is the stories of real Canadians – not the narrow, self-serving narrative produced by big telecom – that this commission should listen to. I've heard from photographers, graphic designers and video makers who are being priced out of their. I've spoken to businesses that are unable to invest in online services because of the precarious nature of our broadband pricing.

21. For example, Andrew Moore Crispin wrote to you: "I work at butterscotch.com, a division of Tucows […]Our online video network that focuses on helping people do more with the technology they own with video tutorials and helpful how-tos would not be viable in a climate where Internet users are worried about exceeding draconian and artificially low bandwidth caps."

22. There's also Aaron Sinclair who wrote, "Dear CRTC, I am an independent music producer and I depend on the internet for my livelihood. The arts, media and technology is one of the new ways for Canadian culture to thrive […]The focus should not be on finding ways to make the internet cost more but on finding ways to make it faster and more accessible […]I believe the CRTC should reverse its previous UBB rulings and allow independent ISPs to choose their own customer billing solutions.

23. What ties all of these together is what accounts for the largest citizens movement in the country right now - that's the value of opportunity. The Internet represents opportunity. Opportunity for a meaningful and rewarding job; opportunity for independence and

autonomy; opportunity for a dynamic economy. The pro-internet movement, and Canadians writ large, are calling on this commission to throw open the gates of opportunity that the Internet can provide on a both personal and on a national scale.

24. It's time to listen to Canadians. And Canadians are not just vocal, they are extremely well-informed. I invite you all to take a look at the OpenMedia.ca's Facebook page at www.facebook.com/openmedia. We have over sixty thousand active contributors. With this page, the commission has an unprecedented opportunity to listen to Canadians who are remarkably well-informed about this issue. You will most likely learn from them as I have, and I believe by hearing the personal stories of Canadians you may be inspired to take a different approach to digital policy. There is wisdom in the crowd.

25. Allowing big telecom to regulate Internet pricing models towards their own narrow interests and thus smother our economy, is not acceptable. The Internet is the key infrastructure for the 21st century. It's essential for our culture, our economy, and our democracy. And because the Internet is so important, allowing a few companies to control the internet access market would be irresponsible and undemocratic.

26. You have heard some facts from me, and you will hear more from my colleague. The unprecedented one hundred thousand Canadians that asked you to enable pricing choice, and the four hundred and ninety one thousand that asked you to stop the meter, await your decision based on these clear facts. I trust you will make the right choice.

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27. So, as you may have gathered from Steve's presentation, we are really concerned with the impact that UBB is having on consumers, and also on online innovation. Of greatest concern for us is the rapid rate at which monthly caps have been *dropping* in the past year and a half or so industry wide. This, to us, is indicative of a troubling trend, and it comes at a time when annual wireline traffic growth rates are extremely modest and should pose no serious challenge to incumbents. We have put a fair amount of evidence on the record documenting our concerns, which I will not revisit here in detail.

28. In brief, we are concerned that at a time when annual traffic growth rates are very modest, monthly usage allowances at an industry level are not only failing to keep pace with these modest growth trends, but are declining. In particular, the last year and a half or so has seen a significant industry wide drop in monthly allowances, meaning caps are becoming more and more restrictive.

29. These monthly caps now affect all levels of usage, and customers do not like them. This is evident from the very high level of engagement that this issue has attracted. The reason customers do not like these pricing tiers is because they are non-transparent, non-predictable, and put customers at a real disadvantage in forcing them to guess how much

they will use ahead of time and to over-purchase. They also burden emerging innovative online services, ranging from online delivery of video game purchases, to online video streaming sites, to cloud computing/storage networks, with added costs.

30. To foster innovation and customer choice, competitive models that encompass different pricing approaches are necessary. With this in mind, we turn to an assessment of the tariffs in this proceeding.

1. Which of the proposed billing models is best?

31. At the outset, we do not think there is justification for the application of an economic ITMP with respect to wholesale. Given that GAS and TPIA tariffs have always included cost-based components that are intended to reflect usage, this, in our view, is the best mechanism for ensuring incumbents are compensated for their wholesale services and not an economic ITMP.

32. As noted above, there is no current 'phenomenal growth rates'. For the last several years, wireilne traffic has grown at a steady, but modest, 35-50% annual rate. This is far less then the 100% growth rate that has characterized much of the history of the Internet, and falls far short of historical projections. At the same time, the cost of network investment has been dropping. Falling annual traffic growth rates combined with falling equipment prices does not suggest out of control costs that require new pricing models. In fact, taking Bell as an example, its annual investment in wireline has remained steady since 2006 (1% CAGR 2006-2010). With this constant level of investment, it was able to meet the 45% traffic growth rates on its network while deploying new high speed services such as FTTN.

33. There has been no evidence of unmanageable network costs and we do not see justification for incentives to flatten usage across wholesale competitors. As Steve noted, to meet our criteria wholesale tariffs must be cost-based, fact-based, and transparent. To the extent possible, we assess some of the tariff proposals before the Commission in light of their ability to meet these factors.

Cost-Based:

34. A wholesale tariff should aspire to best emulate actual costs incurred by the incumbent in provision of the service plus a reasonable mark-up. This includes any usage based component included in such a tariff. Once a pricing model of this kind is in place, there is no longer any need to worry about incentives to control usage, as the incumbent will be reimbursed for all usage.

35. While we are not convinced that a variable usage-based wholesale component is required at this point, of the proposals currently before the Commission CNOC's appears to most closely approximates actual incumbent costs of service provision in a number of ways.

First, the AVP proposal, while a vast improvement over its predecessor, is not designed to be cost-based, but rather to put in place incentives to ensure usage control.

36. Second, CNOC's proposal avoids the 'double-dipping' problem inherent in the AVP proposal, which includes capacity costs in both the fixed (access) and the variable (usage) components of its tariff. CNOC's proposal departs from this by disaggregating each fixed component (port cost, customer connection cost, variable usage-driven costs) and, in this respect, more closely aspires to our cost-based principle. This model will more closely replicate actual ILEC usage-based costs, in that it will not be dependent on the end-user connection speed, but rather on the degree to which that connection is utilized.

37. Third, the CNOC proposal is superior in that the risk allotment it places on competitors emulates that experienced by ILECs. The CLECs will provide the ILECs with their own usage projections and, hence, will not be forced to purchase in excess of their monthly usage or face stringent penalties. Instead, both CLECs will be operating from the same types of usage projections that ILECs use in making provisioning decisions, as explained by CNOC:

> *The AVP proposal is unfair to wholesale customers on an individual basis. Each wholesale customer bears the risk of paying for usage it never uses if it overbuys pre-purchased usage blocks, and it bears the risk of paying more than necessary for post-paid usage if it underbuys pre-purchased blocks.*
>
> *A much better approach would involve having GAS customers provide rolling semi-annual usage forecasts to the Bell Companies on a monthly basis. Such forecasts in the aggregate would be more accurate than individual company forecasts and would therefore provide the Bell Companies the information they need for network planning purposes. This approach is consistent with the approach that LECs employ for network planning purposes. Unlike the AVP proposal, the use of forecasts only would not penalize wholesale customers based on whether they underbuy or overbuy pre-purchased blocks of usage.*[1]

While CLECs are better placed to project monthly usage than ordinary customers, the CNOC proposal is fair on this point than Bell's in that it will provide ILECs with usage projections and burdens both ILECs and CLECs with a somewhat equal level of risk.

38. Finally, as explained in the next section, it is peak-period based as opposed to monthly usage based. However, we are not convinced that either of these proposals is required or preferable to the traditional mechanism for including provisioning costs in GAS tariffs, which was based on estimates of peak usage.

[1] CNOC(CRTC)29Apr11-3 TNC 2011-77, Page 2 of 2.

Fact-based:

39. It is critical that rates, and particularly variable usage-based rates, be based on *proven* incumbent incremental costs. Currently, this data is not on the public record in that it is treated as confidential. Any per GB or per Mbps rate that forms the basis of a tariff should be proven on the record and the underlying assumptions for such a rate made clear, so that they can be challenged.

40. There is reason to believe that the current proposed $0.195/GB rate put forward by Bell in its latest AVP proposal is significantly higher than Bell's actual costs. There is evidence on the record that Bell's costs are as low as $0.08/ or even $0.01/GB, and a markup of this calibre is unjustified in cost-based tariff. Indeed, as MTS points out, the $0.195/GB and $0.295/GB overage penalty are in fact higher than some of Bell's own retail service packages.[2] A clearer, on the record understanding of incumbent pricing assumptions is essential to ensure that the tariffs put forward are, in fact, cost-based. If it is impossible for confidentiality reasons to put these assumptions and costs on the public record, in our view, it becomes incumbent on the Commission to develop in-house investigatory capacity so that it can better ensure this accuracy.

41. This accuracy is even more critical if CNOC's proposal is adopted. As CNOC proposes to roll all usage based costs into a variable per Mbps rate, inaccuracies in this rate may very seriously impact on CLEC's ability to compete.

42. Finally, a fact-based approach should include built-in reviews for any rates and particularly for any variable usage-based rates it sets. Variable usage rates are continually dropping at annual rates. If a tariff is locked in at one rate while incumbent rates decrease due to technological developments, the long term prospects for competition will not be good.

Transparent:

43. Transparency in measurement is additionally important to a successful tariff. Network usage is not easily measured. In the US, an examination of mobile usage measurements demonstrated overmeasurements of customer usage ranging from 7-14% *on average*, with specific examples ranging as high as 300% in overage charges.[3] There have been numerous examples of measurement issues in existing variable usage-based schemes. CAIP, for example, noted in a letter in TN 242&338/7181, that:

> *In late 2008, Bell made sample UBB data available to its wholesale customers. To say the data is flawed is an understatement. ISPs are reporting variances between Bell's data and*

[2] MTS, Reply Comments, TNC CRTC 2011-77, April 29, 2011.
[3] http://www.loopinsight.com/2011/05/19/lawsuit-claims-att-overcharges-iphone-data-users-up-to-300/

the ISP's own data of as much as 800%. In one case, Bell has provided data indicating a residential end user consumed 1 TB (terabyte) of data over 20 hours of use.[4]

If a variable method of usage billing is to be applied to wholesale pricing, moving the point of measurement to the CLEC's point of interconnection (AHSSPI or POI) as proposed by CNOC is likely to minimize billing discrepancies as incumbents and competitors will be working from the same measurement point.

2. Peak period v. monthly usage measurement?

44. As expressed in far greater detail in our initial and reply comments to this proceeding, network costs are a product of peak period usage. Peak period aggregate pricing more closely emulates actual incumbent costs. A GB of usage over the course of one day can generate more provisioning costs than 10 GB usage over the course of a month. Therefore per TB monthly blocks, while superior to per end-user monthly caps, are still not a tailored measurement of actual incumbent usage and cost.

45. There is evidence on the record that, while peak-period usage remains the primary driver of network investment costs, only approximately 25-30% of all *daily* traffic occurs during such periods. This means that as much as 70-75% of daily usage is *not* likely to lead to any network costs, making monthly usage a blunt and inaccurate statistic for determining a cost-based tariff.

46. More data is needed to assess the level of correlation between CNOC's 95% measurement proposal and actual network costs, but it appears more carefully tailored to peak period usage and therefore more closely cost-based.

3. Incentives to build out networks and manage traffic?

47. In our view, incentives to build new networks do not come inherently from any usage-based wholesale pricing scenario, whether fixed or variable. Instead, they come from increased competition. As long as incumbents are able to recoup any provisioning costs imposed on them by their wholesale services (along with a reasonable markup), a tariff of this nature will not *deter* incumbents from building their networks in any way. As noted above, once this cost-recovery + is assured, there is no longer any need for traffic management incentives with respect to wholesale services.

4-5. Markups: symmetry across network providers and across access v. usage rates?

[4] CAIP, Comments on TN 242 &338/7181, April 14, 2009, para. 25.

48. We make no detailed submissions with respect to markups accept to note that all elements of proposed tariffs should be cost-based with the same reasonable markup.

6. Application to legacy services?

49. Finally, we note that the adopted tariff, whether it be Bell's AVP proposal or CNOC's, should be applied to Legacy services. We are concerned that Bell's proposal, which provides CLECs with a discount equal to Bell's projected acceptable monthly average per-customer usage, will provide incentives for CLECs to keep customers below Bell's predetermined monthly usage caps, and this will not be productive. Further, the existing legacy tariff is not consistent with CNOC's tariff structure, which CIPPIC and OpenMedia.ca believe is superior for the reasons listed above. For this reason, all services at issue should be migrated to a tariff based on the CNOC model.

Thank you for your time. We will be glad to take any questions you may have.

APPENDIX

FIGURE A

comScore, 2010 Canada Digital Year in Review, p. 31:

http://www.comscore.com/Press_Events/Presentations_Whitepapers/2011/2010_Canada_Digital_Year_in_Review

Canadians 'most engaged online'.

"Multimedia sites like YouTube accounted for the large majority of videos viewed online with more than 6.6 billion in Q4 2010. Blogs and Music sites posted the strongest gains, while other types of Entertainment sites, News and Sports sites made the top 10 list."

Category	Q4 2009	Q4 2010	% Change
Entertainment –Multimedia [YouTube+]	**9,818,795**	**6,642,727**	**-32%**
Entertainment –Music	83,077	315,136	279%
General News	238,737	272,104	14%
Entertainment -TV	**217,257**	**165,691**	**-24%**
Social Networking	314,393	156,233	-50%
Sports	177,397	148,537	-16%
Retail	112,701	106,718	-5%
Games	162,045	93,651	-42%
Blogs	9,411	64,088	581%
Entertainment -Humor	72,452	49,859	-31%
TOTAL:	**11,206,265**	**8,014,744**	**-28%**

FIGURE B:

M. Geist, "Canada's Usage Based Billing Controversy: How to Address the Wholesale and Retail Issues", March 2011, <http://www.michaelgeist.ca/component/option,com_docman/task,doc_download/gid,53/>.

case	OC4	OC12	OC48	Notes
A	$0.3452	$0.1192	$0.1007	HPSA costs; usage per Case B
B	$0.3078	$0.1063	$0.0898	subscribers assuming 1 GB overage
C	$0.3078	$0.1016	$0.0844	subscribers assuming 0 GB overage
D	$0.3078	$0.0980	$0.0759	more subscriber growth
E	$0.3078	$0.0825	$0.0501	max subscribers, no roll-out
F	$0.3078	$0.0767	$0.0191	saturated backhaul

Table 5: Cost per GB Capacity

FIGURE C:

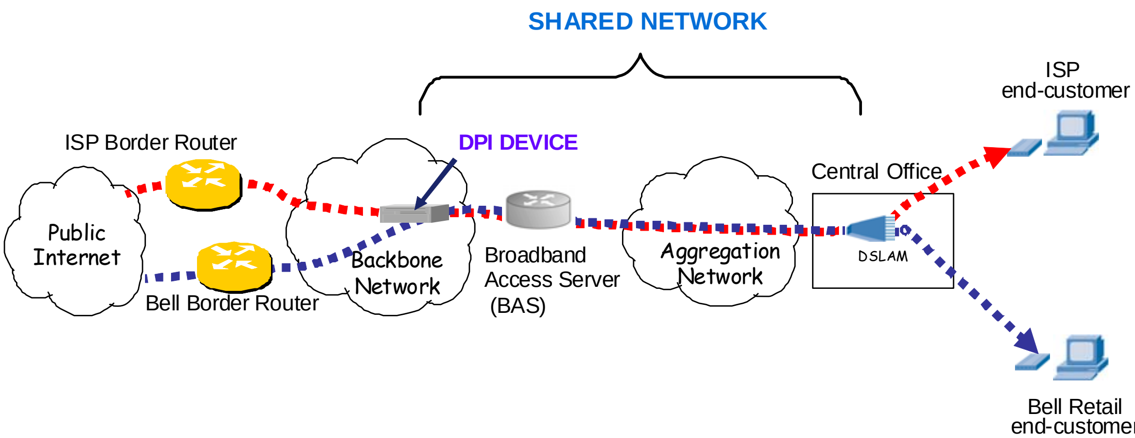


IMAGE SOURCE: Bell Canada, Submissions in *CAIP v. Bell*, An Application before the CRTC Requesting Certain Orders Directing Bell Canada to Cease and Desist from "Throttling" its Wholesale ADLS Access Services, July 11, 2008, Figure 1.

FIGURE D:

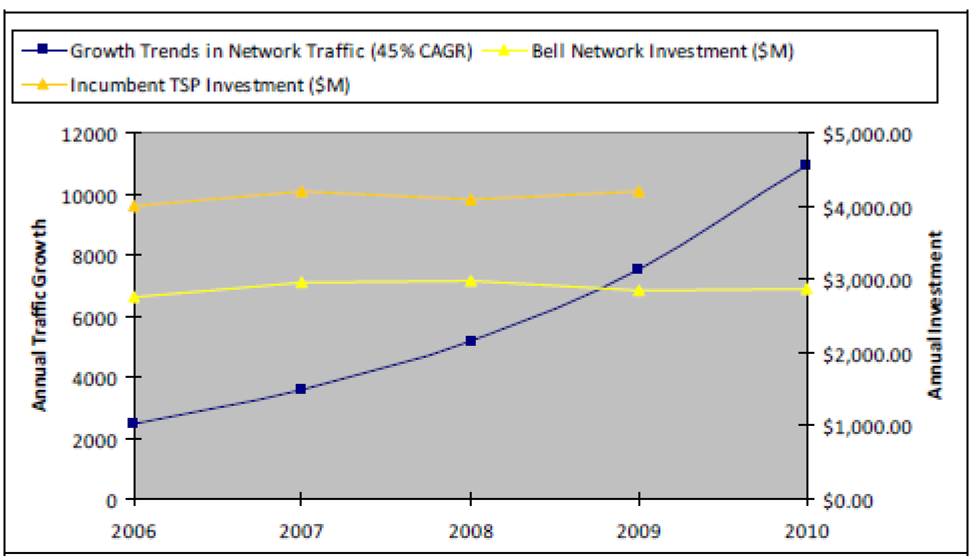


Figure 2: CapEx v. Traffic Growth[17]

Excerpt: CIPPIC/OpenMeida.ca, Reply Comments, TNC CRTC 2011-77, p. 9

FIGURE E:

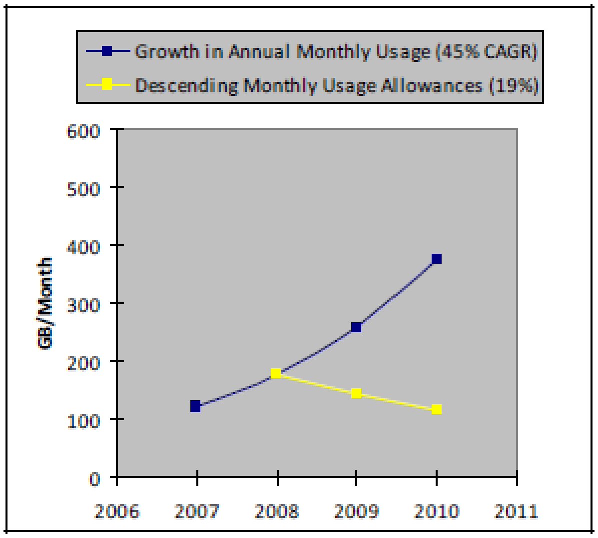


Figure 3: Projected Growth in Annual Traffic v. Descending Usage Allowances (2010 projection)[46]

Excerpt: CIPPIC/OpenMeida.ca, Reply Comments, TNC CRTC 2011-77, p. 19

FIGURE F:

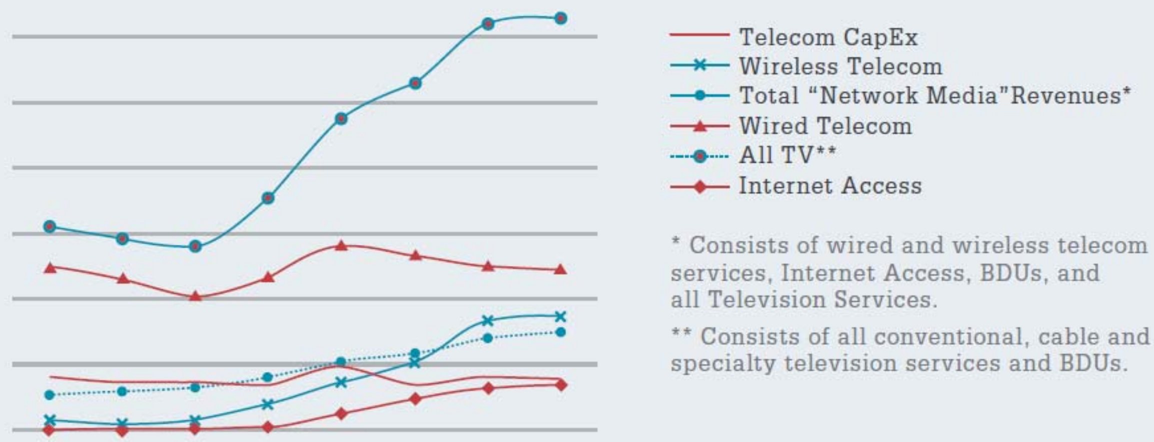
Alice's Use (GB/month)	Actual Service Charge	ISP Markup
3 x 1.5 hour movies/week (~30 GB/month)[58]	Netflix: $7.99/mth	
6 x 0.5 hour TV shows/week (~20 GB/month)[59]	Netflix: 0 (see above)	40 GB insurance scheme @ 5$/month
30 days x 1.5 hours cloud music (~5 GB/month)[60]	Amazon.com Cloud Drive: $29.95[61]	20 GB overage charges @$0.25/100 MB
One game purchased (~7 GB)[62]	Steam: $49.95	
Total:	$87.89	$50.00 (57% markup)[63]

Table 2: ISP Service Markups

Excerpt: CIPPIC/OpenMeida.ca, Reply Comments, TNC CRTC 2011-77, p. 22

FIGURE G:

NETWORK INFRASTRUCTURE CAPITAL EXPENDITURES
VS. REVENUES ($MILLIONS CONSTANT 2010 DOLLARS)



Sources: Statistics Canada. (2010). Capital and repair expenditures: industry sector 51, information and cultural industries, annual (dollars) (Broadcasting and telecommunications) (2001-2009). CAN-SIM table 029-0013. Ottawa, ON: Statistics Canada. Retrieved from http://cansim2.statcan.gc.ca/cgiwin/cnsmcgi.exe?Lang=E&RootDir=CII/&ResultTemplate=CII/CII___&Array_Pick=1&ArrayId=0290013

Statistics Canada. (2010). Capital and repair expenditures on construction and machinery and equipment,by industry, Canada, actual data, annual (dollars) (Broadcasting and telephone (1984-1993).

Statistics Canada. CAN-SIM table 029-0033. Retrieved from http://cansim2.statcan.gc.ca/cgiwin/cnsmcgi.exe?Lang=E&RootDir=CII/&ResultTemplate=CII/CII___&Array_Pick=1&ArrayId=0290033

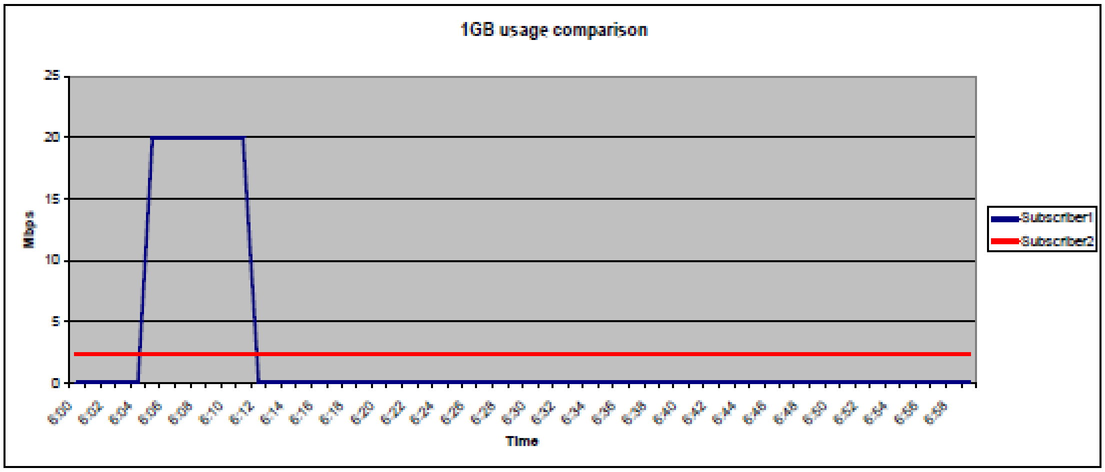
CRTC. (2010). Communications Monitoring Report. Retrieved from http://crtc.gc.ca/eng/publications/reports/policymonitoring/2010/2010MonitoringReportFinalEn.pdf

Organization for Economic Cooperation and Development. (2009). Communications Outlook 2009. Paris: OECD.

OpenMedia.ca, 'Casting an Open Net', 2011, p. 119.

FIGURE H:

Chart – Usage Pattern Comparison



Primus, initial comments, TNC CRTC 2011-77, March 28, 2011, p. 2.