November 20, 2013

Mr. John Traversy  
Secretary General  
Canadian Radio-television and Telecommunications Commission  
Ottawa, ON K1A 0N2

Dear Mr. Traversy,

**Subject:** Part 1 Application requesting fair treatment of Internet services by Bell Mobility, Inc., pursuant to CRTC 2010-445 and CRTC 2009-657, and *The Telecommunications Act*, s.24 & subsection 27(2).

I. **Summary**

1. I, Ben Klass, make this application, pursuant to Part 1 of the *CRTC Rules of Practice and Procedure*, s.24 and subsection 27(2) of the *Telecommunications Act*, requesting that the Commission prohibit Bell Mobility, Inc from giving itself an unfair advantage by applying a separate data cap to its own new media broadcasting undertaking (“NMBU”) service.

2. Bell Mobility, Inc. (“Bell Mobility”) is a mobile wireless service provider (“WSP”) that offers Canadians voice and data services. Bell Mobility also offers a NMBU service called “Mobile TV,” which allows users to watch live and on-demand video over the Internet via an app on their smartphones. I put this application before the Commission because I believe that Bell Mobility, by applying an application-specific economic ITMP to Mobile TV, gives itself undue preference, and in so doing unjustly discriminates against consumers and competitors.

3. Bell Mobility is a subsidiary of Bell Canada Enterprises (“Bell”), which is Canada’s largest communications company; in 2012 it accounted for 26.4% of all
4. Canadian communications industry revenues. Another subsidiary of BCE, Bell Media, owns 12 of the 43 programming undertakings offered through Bell Mobility’s Mobile TV service. As BCE’s subsidiaries are part of a large, vertically integrated communications organization, and since BCE recently undertook a major corporate merger, any suggestion that its various operations may be exercising market power in an anti-competitive manner is cause for concern. Bell Mobility’s preferential treatment of Mobile TV is one such case.

5. Mobile TV qualifies as a NBMU service under to the definition put forward in Public Notice CRTC 1999-84, as amended by CRTC 2009-660; in other words, it is an Internet service that is delivered to consumers’ mobile devices. Given the status of NMBU Internet services, Bell Mobility is exempt from regulation under certain sections of the Broadcasting Act. However, this exemption is subject to a number of qualifications, most notably that Bell is prohibited from giving itself undue preference and that the CRTC retains the power to collect information when allegations of preference are registered.

6. Furthermore, as an Internet service, Bell Mobility’s treatment of Mobile TV is subject to regulation under TRP CRTC 2009-657, “The ITMP Framework”, which applies to mobile wireless data services (TRP CRTC 2010-445).

7. Bell has seen fit to make Mobile TV subject to a separate data cap than that which applies to all other Internet traffic. This practice results in discrimination which negatively affects all Bell Mobility customers, as well as a number of competitive service providers. In what follows, I provide evidence in support of the assertion that Bell gives itself undue preference. It does so by applying an application-specific economic Internet traffic management practice (“ITMP”) to its Mobile TV service, causing unreasonable disadvantage to competitors and harming consumer choice.

8. For the reasons explained in this filing, I request that the Commission prohibit Bell from employing such an application-specific economic ITMP pursuant to section 24 and subsection 27(2) of the Telecommunications Act.

9. The Canadian mobile wireless data services market is complex and dynamic: “Due in part to the large number of existing ISPs”, paragraph 46 of TRP CRTC 2009-657 established that “primary ISPs may continue to apply ITMPS to retail Internet services as they consider appropriate”.

10. However, as per TRPs CRTC 2009-657 CRTC 2010-445, the Commission retains its powers to regulate the practices of WSPs when they give themselves

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2 CRTC Communications Monitoring Report 2013, Table 4.3.14 2/6, http://www.crtc.gc.ca/eng/publications/reports/policyMonitoring/2013/cmr.htm. Number of channels based on a customer who does not also subscribe to Bell Canada home BDU services.
undue preference under s.24 and subsection 27(2) of the *Telecommunications Act*.

11. The data caps which Bell Mobility selectively applies to the Internet services it offers customers appear to be unduly preferential.

12. The ongoing practices of Bell Mobility suggest that the issues raised herein may go beyond the singular practice of Bell’s preferential treatment of its Mobile TV NMBU Internet service. If the Commission were to deem that these issues merit a broader proceeding, I would have no objection.

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I. Background

What is Mobile TV?

13. Bell describes Mobile TV as a "breakthrough wireless data service that offers on-the-go access to more than 40 channels of live and on-demand sports, news, entertainment and children's TV programming.” In September 2013, Bell announced its 1,000,000th subscriber to Mobile TV.3

14. Bell Mobility, by offering its customers the Mobile TV service, fits the definition of new media broadcasting undertaking (“NMBU”) originally set out in CRTC 1999-84, as amended by Broadcasting Order CRTC 2009-660, which states:

“The undertaking provides broadcasting services, in accordance with the interpretation of "broadcasting" set out in New Media, Broadcasting Public Notice CRTC 1999-84/Telecom Public Notice CRTC 99-14, 17 May 1999, that are:

a. delivered and accessed over the Internet; or
b. delivered using point-to-point technology and received by way of mobile devices.”4

15. Mobile TV is “delivered using point-to-point technology and received by way of mobile devices”, and it is “delivered and accessed over the Internet.”

16. The Commission exempts Bell Mobility “from any or all of the requirements of Part II of the [Broadcasting] Act or of a regulation thereunder”,5 albeit with several important caveats, including that:

“The undertaking does not give an undue preference to any person, including itself, or subject any person to an undue disadvantage”; and that

“The undertaking submits such information regarding the undertaking’s activities in broadcasting in new media, and such other information that is required by the Commission in order to monitor the development of


broadcasting in new media, at such time and in such form, as requested by
the Commission from time to time.”

17. Although Mobile TV is not subject to certain broadcasting regulations as
described above, as an Internet service, it is subject to regulation under the
Telecommunications Act and regulations thereunder, in particular TRPs CRTC

18. If Mobile TV were not an Internet service, it would not qualify for status as a
new media broadcasting undertaking, raising the spectre of the need for
regulation under the Broadcasting Act. In the concluding paragraphs of
Broadcasting Regulatory Policy 2009-329, Commissioner Denton indicated in his
concurring opinion that such regulation would be undesirable.

19. Furthermore, if Mobile TV were not an Internet service, the implication
would be that it would be a standard broadcasting distribution undertaking
(“BDU”). Bell Mobility would require prior consent from the Commission to offer
such a BDU service under section 36 of the Telecommunications Act, consent
which, to my knowledge, has not been granted as of this date.

20. That Mobile TV is indeed an Internet service and not a BDU is confirmed by
the fact that is available to customers who connect their smartphones to any
home broadband network via Wi-Fi. It is interesting to note that, when viewed in
such a fashion, Mobile TV is not subject to an application-specific ITMP; when
delivered over a wired network, Mobile TV is treated like all other Internet
services (subject to monthly caps). Viewed on a mobile network, Mobile TV is
exempt from the standard data caps, a practice which is not technologically
neutral. As is shown below, this preferential treatment is not related to the
management of network congestion but instead is suggestive of anti-competitive
practices by Bell.

21. My primary concern is whether Bell gives itself undue preference, thus
causing unjust discrimination against consumers, competing WSPs and/or
competing over-the-top (OTT) services through Bell Mobility’s use of ITMPs.

22. Therefore, the proper frame of reference for evaluating Mobile TV is the
ITMP framework set out in CRTC 2009-657 and CRTC 2010-445, discussed
below.

23. In 2009, the Commission issued the “Review of the Internet Traffic
Management Practices of Internet Service Providers,” commonly referred to as
the “network neutrality framework.” Subsequently in 2010 the Commission

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2009/2009-330.htm

determined that the framework applies to “mobile wireless data services.” As was mentioned above, Bell explicitly categorizes Mobile TV as a “wireless data service.” As well, Bell’s website and financial reporting make repeated references to Mobile TV viewing as “data.”

24. In the ITMP framework, “The Commission establishe[d] a principled approach that appropriately balances the freedom of Canadians to use the Internet for various purposes with the legitimate interests of ISPs to manage the traffic thus generated on their networks, consistent with legislation.”

25. Due to the “varied and evolving nature of networks, services being offered, and user needs”, the Commission determined that it would not establish “bright-line rules” for evaluating ITMPs, but rather take an ex post approach, in which complaints are to be addressed on a case-by-case basis. What immediately follows is a description of how MobileTV relates to the ITMP framework.

II. Does Bell give itself preference?

Uncapping Mobile TV

26. Bell’s preferred method of managing wireless network traffic is to apply a specific type of economic ITMP to the wireless data services it offers customers. Commonly known as “monthly data caps,” the method by which this type of ITMP purportedly manages congestion is by “match[ing] consumer usage with willingness to pay, thus putting users in control and allowing market forces to work.”

27. However, here’s the catch: Bell exempts Mobile TV from standard monthly data caps. “Any Bell customer with a smartphone and a data plan can get 10 hours of mobile TV viewing as a $5 a month add-on, without affecting the data allotment in their plan.” The two relevant facts that this statement shows are:

a.) Bell’s Mobile TV service gets special treatment;

b.) Wireless service subscribers can watch up to 10 hours of content before reaching the Mobile TV cap.

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9 “Plus, the data used for Mobile TV viewing will not impact your data plan”; “The data required for Mobile TV viewing on Bell’s mobile and Wi-Fi networks is included and will not impact your data plan. http://www.bell.ca/Mobility/Products/Mobile_TV
11 ibid, paragraph 37.
12 ibid.
28. In other words, Bell employs two different data caps, one of which is specific to the Mobile TV application, and another that applies to all other Internet traffic. The former is an application-specific economic ITMP, set at 10 hours of viewing per month, while the latter varies according to the rate plans offered by Bell.

29. By exempting Mobile TV from the caps that otherwise apply to all Internet traffic, including competing OTT services such as Telus’s Optik-on-the-Go app, Netflix or the CBC Radio app, etc, Bell gives itself preference. This raises the question: is such preference undue?

30. The evidence presented in this application shows that Bell does indeed give itself undue preference, putting competing service providers at an unreasonable disadvantage and harming consumer choice.

III. What is the nature of the preference that Bell gives itself?

Innovation

31. A data cap is a form of usage-based billing (“UBB”), otherwise known as an economic ITMP. An economic ITMP is not a rate; the former is a means by which WSPs purport to manage traffic on their networks, while the latter is how a business generates compensatory revenue. The Commission currently forbears from regulating retail wireless rates (TRP CRTC 2012-556) but it does take an ex post approach when considering whether to regulate economic ITMPs (TRP CRTC 2009-657, section II).

32. Data caps are meant to ‘discipline’ consumers’ use of the Internet. Due to the finite capacity of networks at any given time, ‘congestion’ is said to occur when ‘too many’ users attempt to access the Internet concurrently. In economic terms, data caps are an inefficient means by which WSPs artificially limit demand by restricting output. Output is restricted by raising the price of services, in this case the price of monthly access to data, above competitive levels. The creation of artificial scarcity in such a way represents a distortion of market forces, albeit one that is purportedly necessary to ensure reliable service, assuming that congestion occurs past a certain threshold of concurrent Internet use.

33. The problem with static monthly data caps is that congestion is a highly dynamic, ephemeral phenomenon, particularly when it occurs on mobile wireless networks. Anyone who has attempted to access the Internet on their smartphone during an arena sporting event or concert intuitively knows this to be true. Minutes after a crowd has dispersed, service returns to normal. Similarly, congestion may occur in one geographic location with no effect in others. The link between a monthly data cap and fleeting moments of localized congestion is tenuous at best.

34. In response to an industry survey by Heavy Reading research, one mobile operator declared:
“We often have no clear understanding of outages and degradations and what causes them, and our RAN vendors often don't understand either.”\textsuperscript{14}

35. Rogers recently experienced one such high-profile outage. It identified the cause somewhat ambiguously as a “software glitch”\textsuperscript{15};\textsuperscript{15} in other words the outage was not, as one might have expected, due to “excessive usage” by consumers.

36. The Commission has stated that “Network investment is a fundamental tool for dealing with network congestion and should continue to be the primary solution that ISPs use.” (TRP CRTC 2009-657, emphasis added)

37. \textit{WSPs have made considerable investments in their networks.} From 2009-2012, Bell Mobility and Telus, who share network infrastructure, collectively made nearly $5 billion of capital expenditures on their shared mobile wireless infrastructure.\textsuperscript{16} In order to further expand network capacity, these companies have also spent considerable sums to purchase additional spectrum licenses as they have become available. In 2009, Bell and Telus deployed a shared HSPA network with a capacity of 21Mbps per unit. Since then, their network has been upgraded to HSPA+ (42Mbps) across most of their footprint, and LTE (150Mbps) in many areas. The 700MHz auction promises to contribute to the continuing trend of rising network capacity at historically flat levels of capital investment.

38. As well, part of the capital investment WSPs have made in their networks has gone toward fibre backhaul and high-capacity radio links, which have been steadily replacing copper and outdated microwave arrays as the means by which wireless towers are linked back to WSP central offices and the Internet. Further, carriers such as Bell have deployed ubiquitous Wi-Fi networks as an ITMP designed to offload traffic onto home and business networks, thus reducing the possibility of congestion on mobile networks.

39. Sandvine reports that average North American monthly mobile data consumption was just less than 450MB per month in the second half of 2013.\textsuperscript{17} This figure contradicts claims that there is ‘explosive demand’ for mobile data usage, and is likely more reflective of the behaviour of consumers who restrict


\footnotesize\textsuperscript{16} Bank of America Merrill Lynch Wireless Matrix, 2013.

their use of available network capacity for fear of incurring punitive data overage fees (See appendix A).

40. On Bell’s 150Mbps LTE network, a consumer could download this amount of data in just over 20 seconds at full bandwidth. Such abnormal use of the network may contribute to congestion for 20 seconds in a particular area for a very brief period of time, but the vast majority of the time normal usage does not cause congestion. Monthly data caps do little if anything to alleviate this type of situation; in fact it is likely that a mobile data user who wishes to avoid the risk of data overage fees might refrain from ordinary use of the Internet at times and in places where the potential for congestion is vanishingly small, if not otherwise nonexistent.\textsuperscript{18} Would consumers be making greater use of wireless networks to talk, watch, and shop in the absence of data caps? It seems likely. Would such ordinary use cause crippling network congestion? I sincerely doubt it. Should we consider normal use of the Internet excessive? Absolutely not.

41. Despite the expanding capacity of wireless networks, and the increasing availability of Wi-Fi ‘safety valves,’ data caps remain a primary feature of wireless services in Canada. This comes as a surprise, considering that all three national providers introduced new plans this summer, shortly after the debut of their new high capacity networks. The new plans’ rates reflect the investment made by Bell, that is to say they increased. Curiously, the new plans’ data caps did not similarly reflect expanded capacity. I sincerely doubt that the Commission’s intention when issuing the ITMP framework was to encourage the continued use of metered service once network capacity became abundant.

42. In fact, data caps have become the most prominent distinguishing feature of mobile wireless advertising. Each of the 3 national providers advertises the speed of their LTE services, but differentiates their plans mainly based on data caps. Isn’t offering a customer a LTE smartphone plan with a 1GB data cap like selling a sports car with a 1 litre tank, and then sending the driver off to the track?

43. Bell’s current wireless data caps range from 250MB/month to at most 10GB per month; even on the high end plan a consumer could reach their cap in under 10 minutes. On an average plan (1GB), under normal use a customer would reach their cap after watching just 1 hour of HD video. The fact of the matter is, wireless network investment has eliminated the need for restrictive data caps at this point in time and for the foreseeable future.\textsuperscript{19}

44. So why do national WSPs persist in universally applying data caps to their service plans? The short answer appears to be that data caps are not a proportional means of managing Internet traffic; rather they are used to restrict output (thus keeping prices artificially high), and, perhaps more importantly, they are a means to protect WSPs’ programming and broadcasting distribution


affiliates. Left unchecked, this type of unduly self-preferential behaviour has the potential to stifle innovation and restrict consumer choice, and may have serious consequences for the ability of the broader Canadian economy to harness the potential benefits of digital networks.

**Clarity**

45. In the ITMP framework, the Commission considered that “where ITMPs are employed, they must be designed to address a defined need, and nothing more.”

46. Considering that Bell Mobility and others have made significant investments to expand their network capacity, I must ask: what is the “defined need” of creating a separate data cap for Mobile TV?

47. The press release for Bell’s 2013 first quarter report stated:

   “Service revenues grew 7.2% to $1,303 million due to a larger smartphone base and higher blended average revenue per user (ARPU), fuelled by [...] increased use of data services like Bell Mobile TV by smartphone customers.”

48. Bell’s second quarter report for 2013 stated:

   “Data ARPU growth of 16.8% this quarter and 18.2% year to date reflected increased use of [...] mobile TV”.

49. Bell also identified “the increased adoption by customers of alternative TV services” as a “risk that could effect [sic] our business and results”.

50. The same report stated: “Part of managing our business is to understand what these potential risks could be and to mitigate them where we can.”

51. An academic study published in the *Federal Communications Law Journal* argued that “data caps may be a method for ISPs to price gouge and to protect an ISP’s video business.”

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23 Page 27, ibid.

52. The above statements from Bell’s financial reporting contradict claims that data caps are designed to address the defined need of managing network congestion, and nothing else.

53. It’s no secret that Bell earns revenue by selling wireless data services. But by applying data caps to its mobile wireless services, Bell forces customers who make normal use of the network to bear a share of cost that is disproportionate to use. It seems that the primary effect of applying a separate cap to Mobile TV is not congestion management; rather its main effect is to put competitors at an unreasonable disadvantage.

**Competitive Neutrality**

54. As noted above, Bell signed up its millionth Mobile TV customer in September 2013, and it has certainly added even more subscribers since then. This figure represents a significant portion of Bell’s total wireless subscribers, who numbered 7,716,000 at the end of the second quarter.⁵⁵

55. The large and growing number of Mobile TV subscriptions suggests that Bell Mobility’s wireless network is capable of handling considerably greater data usage per user over and above the current monthly caps. Mobile TV content uses significant network capacity without creating disproportionate congestion and at existing levels of network technology and investment.

56. Mobile TV and other Internet services use the same network resources; they share end-users’ devices, the spectrum between a tower and end-users, backhaul, and routing and switching facilities. Bell offers 5GB of Mobile TV content to “anyone with a smartphone and a data plan”, in some cases at no charge; this fact implies that Mobile TV usage does not cause congestion disproportionately to other mobile Internet services using the same facilities. Yet the size of the data caps that apply to non-Bell content services are wildly out of proportion to those applied to Mobile TV, dollar for dollar. This disparity in data caps is tantamount to Bell reserving network capacity for its own content. Can there be any legitimate justification for such a practice?

57. Bell’s practice of reserving network capacity for itself neither puts users in control nor does it allow market forces to work.

58. Actually this practice is an anti-competitive market failure. According to my analysis (see Appendix A), Bell applies a markup of at least 800% to customers’ mobile use of Internet services like YouTube and Netflix, compared to the customer’s cost of watching Bell’s Internet content.

59. To my knowledge, “undue preference” in its statutory meaning and in the context of wireless communications refers to a situation in which a carrier charges different rates for services that have the same cost to the carrier, based

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solely or primarily on the ownership of those services. Unless Bell is forced to pay eight times more to transmit competing Internet data than it pays in underlying costs to transmit its own Mobile TV data, or its own service uses different spectrum resources than third party Internet traffic, then it is reasonable to conclude that the application-specific economic ITMP Bell Mobility applies to its own NMBU is unduly preferential, and by implication discriminates unjustly against Internet services not owned by Bell or BCE.

60. Bell’s ability to give itself this undue preference necessarily depends upon its unrestricted use of retail UBB - in particular, data caps. Data caps are not the same as rates, as noted above, and the Commission’s power to regulate the use of unduly preferential economic ITMPs such as these does not run afoul of its current approach to wireless forbearance, which was affirmed in TRP CRTC 2010-445 and again in CRTC 2012-556.

61. In the following paragraphs, I will use a series of hypothetical but representative situations to illustrate how the undue preference Bell gives to itself in its current operation results clearly and directly in reduced competition and harm to consumers. The figures employed are not hypothetical; they are based on Bell’s online advertised rates, current as of November 19, 201326 (See Appendix A for tables). In setting out these scenarios I am drawing in part on an academic study prepared by by computer scientists Wei Dai and Scott Jordan, who have used mathematical modelling to show that “users with medium to high valuations on video streaming and low incomes are hurt by the data caps.”27

62. Consider a consumer named “Mary” who lives in Alberta. Mary owns a tablet and subscribes to Bell Mobility’s “Tablet Flex” data plan. The “Tablet Flex” plan is a data-only mobile wireless service; Mary purchased a SIM card from Bell that she uses for mobile Internet access on her tablet.

63. The “monthly access fee” for this plan is $5 with a 10MB cap; if Mary uses more data than that, her plan is automatically “bumped up” to the next tier, for which Bell charges $20/month with a 1GB cap and then $40/month with a 5GB cap.

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26 At the IIC13 Canada Conference, Ottawa, November 18, 2013, Gerry Wall of Wall Communications indicated that his firm relied upon advertised pricing in order to analyse wireless prices. I have also checked these prices and the terms of service against what is being offered in the literature available from Bell’s retail kiosks.

64. After 5GB, each additional GB of use will cost Mary either $10 or $15.36, depending on which part of Bell’s web page you read.28

65. Mary has also purchased Bell’s “Mobile TV add-on” for $5, which fee allows her to watch 10 hours (i.e. 5GB)29 of Bell TV. If Mary were to watch 5GB of a competitor’s OTT service, Bell Mobility would charge her $40.

66. In addition to her Bell mobile plan, Mary subscribes to Telus’s Optik TV home BDU service, which includes many of the same channels as Bell’s Mobile TV (e.g. CTV, CTV2, CBC, CBC NN, City TV). Included in the price of the Telus Optik TV service is access to the Optik-on-the-Go app, which Mary can use to watch TV on her tablet using Bell Mobility’s Tablet Flex data plan. Telus’s Optik TV app competes directly with Bell’s Mobile TV app.

67. Let’s say Mary watches 5GB of Optik TV on her tablet. To do so, she must pay Bell Mobility $40 on the Tablet Flex plan. According to the Tablet Flex plan’s data caps, Bell would thereby be marking up her use of Optik TV by 800% compared to the rate she would pay if she watched exactly the same programs on Bell’s Mobile TV at a cost to her of $5. Even though Mary is already paying for the Telus Optik-on-the-Go service, she has no choice but to pay Bell an extra $5 to watch programming on her tablet.

68. So why doesn’t Mary cancel her Tablet Flex plan with Bell Mobility and switch to a similar plan with Telus Mobility?

69. First, Telus does not excuse Mary’s use of the Optik app from standard data caps. Unlike Bell Mobility, Telus respects the CRTC’s ITMP framework insofar as it does not apply an unduly preferential application-specific economic ITMP to its Optik-on-the-Go app. If Mary wanted to use the Optik app with Telus Mobility, it would count against her data usage. She would have to pay $50, which is $40 more than she would to watch Bell Mobile TV or $10 more than she would to watch the Optik app as a Bell Mobility subscriber. Additional Optik viewing on Telus Mobility’s network beyond the initial 5GB would cost Mary $51.20/GB,30 whereas for a Bell Mobile TV subscriber the same amount of Optik app usage would cost only ~$15/GB.

70. Second, although the Optik app is available to mobile subscribers regardless of which WSP they choose, the converse is not true: Bell’s Mobile TV service is

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28 “Data plans for tablets from Bell Mobility”, accessed November 16, 2013. http://www.bell.ca/Mobility/Cell_phone_plans/Tablet_PC_data_plans/Flex_plans.tab Bell Mobility lists two contradictory prices on the web page for Tablet data plans. It prominently displays “Data use exceeding 5GB will be charged $10/GB”, however under the heading of “Additional Information” it says “Data usage over 5 GB: $0.015/MB”, which works out to $15.36/GB. This is an example of the confusing nature of advertising commonly employed not just by Bell but by other national WSPs as well. See: http://benklass.wordpress.com/2013/09/17/316/

29 “For example, 60 minutes of viewing uses about 0.5 GB of data.” From Bell’s Website, page: “What is the Bell TV app and how do I use it? : Information for Bell Mobility customers” Accessed November 19, 2013 http://support.bell.ca/tv/channels/what-is-the-bell-tv-app-and-how-do-i-use-it?step=5

offered exclusively to Bell’s mobile customers. While Telus’s approach is competitively neutral as it relates to consumers’ mobile access to the Optik app, Bell Mobility’s self-preferential practices create a situation in which Mary must choose Bell’s Tablet Flex plan. Because of the preference Bell gives to its own content, Mary cannot rationally choose to subscribe to Telus Mobility’s mobile data plan. In any situation where Mary wants use a mobile network to watch TV on her tablet, her only choice is to subscribe to Bell Mobility’s Tablet Flex plan and pay the extra $5 for Bell Mobile TV, regardless of the fact that she has already paid for the Optik service from Telus.

71. As far as I can tell, there is only one reasonable explanation for these discrepancies: the UBB data caps which Bell applies to all Internet usage other than Bell Mobile TV are not commensurate to the purpose of managing network congestion. Since Bell can offer its customers at least 5GB of Mobile TV without contributing disproportionately to congestion, in some cases for no charge at all, and by virtue of the fact that all other Internet services share the same network with Mobile TV, then there is no reason to believe that at least 5GB of any non-Bell Internet service would contribute to congestion, either.

72. One question remains: why doesn’t Mary switch to Wind Mobile, which offers ‘unlimited’ data service for the considerably more reasonable price of $30? One reason may be that unlike Telus’s Optik app, Bell’s Mobile TV is unavailable to Wind subscribers. If Mary wanted to watch the Optik app on her Wind mobile device, she would still have to pay $30 to Wind, $10 less than she would with Telus Mobility but still $15 more than Bell would charge for watching the same programming on Mobile TV.

73. Further, Wind’s home network in Alberta is limited to urban Calgary and Edmonton. If Mary lives or travels outside these areas, she will be charged $1/MB ($1024/GB) for data use; unless Mary is independently wealthy, she effectively cannot use her data service outside the city limits of Calgary or Edmonton with Wind.

74. Even if Mary lives in a place where Wind offers coverage, she still has no choice but to subscribe to Bell Mobility’s service if she wants to watch TV on her tablet.

75. This might explain why less than 3% of Alberta subscribers have chosen Wind’s mobile data services. Few would deny that sufficient competition is desirable in the Canadian mobile wireless data services market. However, it is clear that, to this date, competition from new entrants has been insufficient to attract a significant market share, to provide adequate network coverage, and to

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31 Curiously Mobile TV is also offered as a $5 add-on to Virgin Mobile customers. Virgin Mobile, of course, is Bell Mobility’s “flanker” brand: another wholly owned subsidiary of BCE.


33 CRTC Communications Monitoring Report, table 5.5.5.
induce the national WSPs to provide innovative new ways of offering service, particularly regarding the ITMPs they employ.

76. The only providers who enjoy significant market share and offer “unlimited” data plans are to my knowledge SaskTel and MTS. However, my opinion that the Prairie telcos are amongst the industry’s best kept secrets notwithstanding, people are certainly not flocking here to take advantage of our abundant network capacity. Even here in “friendly Manitoba,” no national carrier competes by offering UBB-free plans; this is reflected in provincial market shares. Here, $65 will get a Bell customer a 5GB data cap on a smartphone plan. However, in other provinces, national providers’ data cap limits are actually lower dollar-for-dollar than they are in Manitoba and Saskatchewan (See Appendix A: Tables 3 & 4)

77.In Alberta and Ontario, for instance, $70 will get a customer a smartphone plan with 250MB (Roughly 1/20th the data for 1.07 times the price, see Appendix A: Table 5). This is in spite of the fact that Loxcel, a Canadian wireless industry analysis firm, has indicated that there are about twice as many towers per 10,000 inhabitants in Toronto or Calgary as there are in Winnipeg.34 It may cost more to install towers, but twice as many towers suggests greater network capacity, and therefore less chance of congestion, raising the question of why data caps are so low in Ontario and Alberta.

78. It seems that competition in the Prairies is such that the national carriers have been forced to offer slightly less parsimonious data caps, but their service coverage and data cap offerings have not been sufficiently innovative to attract customers away from MTS and SaskTel, who each offer province-wide coverage and plans with unlimited data and calling for $70 a month.35

79. In provinces like Ontario and Alberta, where Bell is an incumbent WSP competing with new entrants, its rates have increased, while its data caps have not.36 In Manitoba and Saskatchewan, where it competes with provincial incumbents, it continues to offer data caps at rates much higher than MTS or SaskTel. In MB, Across the nation, its unduly preferential treatment of its Mobile TV service continues unabated.

80. Marketplace competition is supposed to prevent unjustly discriminatory or unduly preferential behaviour. Even in the Prairies, Bell continues to apply data caps and unduly prefer its Mobile TV service. Everywhere else in Canada, their data caps are lower and prices higher, and Bell still gives preference to Mobile TV.


35 See: http://www.sasktel.com/search/controller/ /R-Product_Services_Talk%26%2344%3B_Text_%26amp;3B_Data_Plan%26%2344%3B_Talk%26%2344%3B_Data_Plans and http://www.mts.ca/mts/personal/wireless/plans/4g+smartphone+plans MTS plan $60 “UNLTD Talk & Surf” + $10 national LD add on. SaskTel plan “Ultimate 70.”

36 Jeff Fan, presentation at IIC13 Canada Conference, Ottawa, November 18, 2013. 1GB cap plan price increased by 9% this summer, 3GB cap plan price increased by 19%. (This in spite of the rollout of LTE networks.)
81. In the ITMP framework, the Commission determined that:

“Consistent with the current regulatory approach, under which the Commission has granted forbearance for retail Internet services, primary ISPs may continue to apply ITMPs to retail Internet services as they consider appropriate, with no requirement for prior Commission approval. This approach remains valid due in part to the large number of existing ISPs. A change in the approach would amount to interference with market forces and would result in inefficient regulation, which is contrary to the Policy Direction.”

82. In the wired Internet market, “Canadians were served by over 500 Internet service providers” in 2012. By contrast, in the wireless market, “Canadians were] served by three large facilities-based national WSPs, a number of smaller regional facilities-based WSPs, and a small number of MVNOs.” By my count, there are 16 non-national facilities-based WSPs and not more than half a dozen MVNOs. Most markets in Canada are served by 3 mobile providers or less. Furthermore, there is no wholesale framework for wireless services, and in no province did the top two providers account for less than 62% of all subscribers in 2012.

83. The current arrangement does not put the consumer in control nor does it allow market forces to function; it creates an unreasonable disadvantage to competing producers and is harmful to consumer choice.

84. At a time when many communities across Canada are losing their free over-the-air access to CBC, Bell is collecting revenue by charging Canadians for access to the CBC (amongst other programming). The increasing costs of wireless data access, coupled with preferential practices employed by Bell, means that Canadians are more and more being forced to pay private service providers for access to the public broadcaster. It is no small irony that the 700MHz spectrum to be auctioned for mobile data services in 2014 once provided free over-the-air broadcasting to Canadians nationwide.

85. Due to its ownership of both content and a network that consumers and OTT providers rely upon for access to and delivery of Internet services, and its ability


39 ibid, Section 5.5

40 ibid, Table 5.5.5.


to apply UBB to (i.e. mark up) competing Internet services, Bell Mobility has an irresistible incentive to employ an unduly preferential economic ITMP. Bell is giving preference to its own wireless data services at the expense of competing service providers and the “freedom of Canadians to use the Internet for various purposes.”

86. It is clear from the evidence given above that Bell uses an application-specific ITMP to unduly prefer its Mobile TV service. As I understand it, according to subsection 27(4) of the Act, Bell will be given a chance to show cause for its use of the application-specific ITMP it gives to Bell Mobile TV, pursuant to the ITMP framework.

Transparency

87. It is expected that ITMPs will be transparent: the Commission considers that “economic practices are the most transparent ITMPs.” However, not all economic practices are created equal.

88. The application-specific data cap that Bell applies to Mobile TV is measured in hours of viewing. For consumers, this is a familiar and intuitive way of gauging time spent watching video. If a Mobile TV customer watches an extra hour (beyond the cap of 10 hours), they are charged $3. Simple. Transparent.

89. On the other hand, if a consumer wants to watch or listen to competitive OTT services like Netflix, Telus Optik-on-the-Go, CBC Radio, YouTube, or any other of the myriad choices available to Canadians on their smartphones, their usage is measured in gigabytes (GB), megabytes (MB), and or kilobytes (KB). This is not so intuitive.

90. Earlier this year, the Public Interest Advocacy Clinic released the results of an online survey of 2,002 Canadians about broadband advertising, conducted on their behalf in 2011 by Environics Research Group. While the survey mainly focused on home Internet connections, the results speak to how Canadians understand data plans and caps in general.

91. When asked how familiar they are with download speeds, 71% of respondents chose either ‘somewhat familiar’ or ‘very familiar.’ When asked about monthly data caps, 58% indicated similar familiarity.

92. Despite this perceived familiarity, when asked “Do you happen to know what the speed of your home Internet service is according to the company that provides your service?” a stunning 75% of respondents answered that they didn’t

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42 ibid.


44 ibid, pg 49-50.
93. Again, the primary subject of the survey was home Internet, not wireless, but the two products are marketed in a very similar fashion, in most cases by the same company. If anything, it would be harder to gauge the speed at which wireless data services are offered; considering that wireless speed and reliability are highly variable based on factors such as distance from the nearest tower, the existence of physical obstacles, and concurrent users, a consumer can hardly be expected to accurately gauge the quality of their service from one day to the next. Information pertaining to these conditions is largely absent in wireless advertising.

94. Unfortunately, the PIAC survey did not ask whether customers knew what their data cap was. But given that fewer customers indicated familiarity with caps than with speeds, I would speculate that the number who don’t know what their cap is to be even higher. Other questions that would have been illuminating: how many megabytes in a gigabyte? How many hours of viewing per GB?

95. York University lecturer and telecom expert David Ellis has written extensively on the deep rift that exists in many peoples’ minds between understanding a GB and understanding an hour as they relate to TV viewing. In my view this is only natural: computers understand bits and bytes, human beings understand seconds, minutes, hours. I’ll be the first to admit that I have no idea how many MB a Youtube video takes up on my 3G iPhone 4.

96. In 2011 Howard Maker, the Commissioner for Complaints for Telecommunications Services, said to the Toronto Star that:

   “I don’t know much about Measurement Canada, but standardization and transparency in the way usage is calculated would benefit consumers and allow the industry to maintain and regain consumer trust”.

97. This was said in the context of the revelation that Bell had “overbilled 2,700 customers [including wireless customers] because of a faulty Internet usage tracker.” If the Commissioner for CTS isn’t certain about how data is measured in Canada, is it reasonable to expect that ordinary Canadians should know?

98. This is a problem that is not limited to the distant past. In 2012-2013, the CCTS received 539 complaints related to wireless data charges, and 1,040 related
to incorrect charges.\textsuperscript{48} Bell Canada was the subject of 28.56\% of all complaints received,\textsuperscript{49} surpassed only by Rogers. The large number of complaints against Bell and Rogers represent Canadians’ continuing dissatisfaction with their national wireless carriers.

99. The amount of data required by OTT services varies widely, not only by type of service, by provider, but as well by the particular device a consumer uses, and seems to be changing at a rapid pace. Consumers cannot be reasonably expected to measure their online content consumption in MB, nor should they be. At a fundamental level when we engage in activities that use data, we experience them in passing time, not in GB.

100. By offering their own Mobile TV service in hours when technological necessity forces consumers to measure all other services in bytes, Bell gives itself preference over its competitors. This situation results in an unreasonable disadvantage for competing OTT services who cannot hope to offer their customers a similar level of transparency when their services are accessed via Bell’s wireless network.

101. Simply changing the way Mobile TV is offered to customers, from 10 hours to 5GB\textsuperscript{50}, would simply not solve the problem of preference as it relates to transparency.

102. By measuring Mobile TV usage in hours, Bell has taken steps to partially reduce another explicitly identified risk: “the complexity of our product offerings”.\textsuperscript{51} I wonder if the lack of similar innovation with regard to other data caps might contribute to the mitigation of the risk presented by increased adoption of alternate services?

\textbf{Possible and Existing Alternatives (That don’t involve undue preference)}

103. There are a number of readily available innovative alternatives that Bell could choose to employ:

104. Since it appears that Bell’s network capacity is greater per user than is reflected by the current data caps, perhaps Bell or any other WSP wishing to offer new media broadcasting undertaking services could offer its customers a general purpose “open data add-on” that matches GB-for-GB the data offered by a WSP

\begin{footnotesize}
\begin{enumerate}
\item ibid p 44
\item “60 minutes of Mobile TV viewing uses about 0.5 GB of data” \url{http://support.bell.ca/tv/channels/what-is-the-bell-tv-app-and-how-do-i-use-it?step=5}
\item Page 28, ibid.
\end{enumerate}
\end{footnotesize}
for their own new media, for the same price. In the case where Mobile TV is offered as a ‘bonus’, customers could be given the option to pick either Mobile TV or the proposed open data add-on.

105. Under a second option, Bell could raise its data caps, eliminate the separate application-specific data cap, and offer Mobile TV as a subscription-based service like Netflix. In fact, wouldn’t this option create the opportunity for Mobile TV to reach a broader audience, generating even more revenue for the company? Netflix reaches a broad international audience. Given that Bell Media owns many of the channels offered on Mobile TV, international licensing would hardly be a concern. So why has Bell restricted Mobile TV’s audience to its existing mobile wireless customers?

106. Some providers, such as WSPs MTS and Wind Mobile and ISP Shaw, offer plans that do not apply “hard” data caps. Instead, “soft” caps are employed, whereby users do not face overage fees when they exceed the suggested data usage for the month. Instead, these providers employ an “excessive use policy”: the provider exercises discretion as to what constitutes excessive use. Once it is determined that a user is negatively impacting the network, they can have their Internet capacity reduced in order to ensure that capacity is available for other customers.

107. The reduction in a subscriber’s bandwidth would typically only be applied during demonstrable peak traffic times. Capacity would be reduced just enough to manage network congestion, but leave customers able to access a broad range of services. It would be important for providers to be specific about what constitutes excessive use. Simply stating that there is such a thing as ‘excessive use’ is not a transparent approach in and of itself.

108. As was mentioned, this type of system is in use by several Canadian WSPs and ISPs. This practice indicates that WSPs have the technical capability to control the speed of their users’ services. As far as I know, Shaw does not as a standard practice charge its customers for excessive usage. No surprise bills, fewer complaints.

109. So, instead of offering a 150Mbps LTE plan with a 1GB data cap, why doesn’t Bell Mobility offer a 5Mbps plan with a 100GB soft cap? Or without a cap at all? If Bell wanted to be really innovative, this is an approach that they could readily adopt using existing technology. For instance, instead of offering 200, 500, or 1000MB (etc) monthly caps, they could offer 5Mbps, 10Mbps, and 20Mbps (etc) plans, eliminating the need for hard caps. An analogous approach exists in the system by which wired ISPs provide wholesale resellers with service, and in fact retail capacity-based billing is employed universally by wired ISPs (Canada has the international distinction of being one of only 4 OECD countries whose ISPs almost universally apply data caps52).

110. This approach would be considerably more efficient and dynamic than the current practice of using static monthly data caps; it would also better reflect the way people use the Internet on a regular basis. Right now, customers choose their monthly data usage when they sign their 2-year contracts, or in some cases on a month-to-month basis. In the proposed system, not only could WSPs more accurately predict how much network capacity they will need to provide with regard to peak traffic, but consumers could choose a plan based on how much data they would need to use at any given time, rather than only in monthly or biannual increments.

111. It must be noted that this type of system is not the same as ‘throttling;’ it does not ‘slow down’ specific Internet applications. Citing Akamai’s State of the Internet Report, Richard Bennett, Senior Research Fellow at the Information Technology and Innovation Foundation recently wrote:

“...web pages don’t load substantially faster in cities with the highest network speeds than they do in the average American city. This is simply because network speed is less likely to be the limiting factor than is server capacity.”

112. Significantly, capacity-based billing would not prevent users from watching online video or using Skype, as Dr. Bennett elaborates further:

“It’s also the case that video streaming is a 2 – 3 megabit/second application, and video conferencing runs at roughly the same rate divided between the upstream and downstream directions.”

113. In other words, what use is having ultra-fast LTE if you can (A) incur punitive fees after exceeding your cap in seconds and (B) realistically only ever require less than 1/10th of that capacity? If 10Mbps is more than fast enough for all but the most demanding individual uses of mobile data services, what purpose does offering service at speeds that can cause a user to exceed their cap in seconds really serve?

114. These are just a few suggestions that illustrate the possibility of real, existing alternative approaches. I believe that each is superior to the current system of monthly caps in terms of empowering consumer choice and creating incentives.

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53 “Server capacity” here refers to the capacity of a third-party provider’s servers, (i.e. google.ca, or crtc.gc.ca, not the capacity of the WSP’s residential network. Bennet, Richard, “Qu’ils mangent de la brioche?”, October 28, 2013. http://www.hightechforum.org/quils-mangent-de-la-brioche/comment-page-1/#comment-265368

54 ibid.

55 i.e. using tethering to back up a large hard drive to “the cloud.” However someone would have to be independently wealthy to use their phone in this manner, or completely ignorant of the financial consequences. Transferring even a small 16GB hard drive over Bell’s mobile network in Ontario would currently cost a consumer with a 10GB monthly data cap $307.20 in overage fees. (6GB over cap)
for innovation, and in each case, preference for applications is determined by the consumer, not the WSP.

115. The fact that Bell continues to apply an unduly preferential data cap to its Mobile TV service, and the fact that it continues to rely primarily on data caps with overage fees suggests that the current level of reliance on market forces vis-à-vis the ITMP framework is insufficient to motivate Bell to adopt innovative approaches to the ITMPs it employs for its retail services.

**Recommendation**

116. In light of the above evidence, I request for immediate consideration that the Commission prohibit Bell from applying an application-specific economic ITMP to the Mobile TV service.

117. The separate cap that Bell applies to Mobile TV is just one particularly flagrant example of unduly preferential practices which result in unreasonable disadvantage to competitors and harm to consumers. At the heart of this problem, however, lies the persistence of WSPs in employing unnecessary data caps, confusing practices, punitive overage charges and who have been reluctant to innovate.

118. I gather that regulation in many cases is costly and can be burdensome. However, the practices of private providers sometimes comes into conflict with statutory public interest obligations. In the case in question, it appears that existing market forces have been insufficient to protect the interests of users of Bell’s wireless telecommunications services.

119. However, the implications of the evidence presented in this application do not imply that *ex-ante* tariff approval is the only available option before the Commission. The Wireless Code is a prime example that shows the Commission is capable of protecting the public interest by implementing creative, flexible regulation that is consistent with the Policy Direction.56

120. Canadians have access to what is unquestionably the most diverse array of programming ever in history. We should be able to choose what to watch, when to watch it, and which screen we watch it on. What we don’t want is the choice between a low rate for Bell’s programming and an unfairly marked-up rate for all other programming. But this is the choice that many customers are stuck with. In fact, it’s not much of a choice at all.

121. Bell is simply acting upon the irresistible incentive it has to exercise self-preferential market power as the carrier of both its own new media broadcasting undertaking service and of third-party services that compete directly with

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56 SOR/2006-355
services owned by Bell. In light of this market failure, it is reasonable to conclude that some intervention from the Commission is required.

122. For the reasons stated above, I request that the Commission prohibit Bell Mobility from applying an application-specific ITMP to its Mobile TV NMBU, pursuant to TRP CRTC 2009-657, TRP CRTC 2010-445 and section 24 and subsection 27(2) of the Telecommunications Act.

123. It should be noted that the allegations of undue preference supported by the details above and in appendix A are also relevant in consideration of the prohibition against preference viz. NMBUs, found in Broadcasting Order CRTC 2009-660.

124. Considering the evidence put forward in this application, I believe it would be beneficial for the Commission to investigate further. The situation is dynamic, complex, and has far-reaching implications.

125. There is much to be lauded in the ITMP framework. The Commission has recognized that “dissociating the ability to innovate from the ownership of networks, and the costs of innovation from the costs of maintaining networks, has led to unprecedented innovation.” Measures pertaining to ISP disclosure, fair-play rules for wholesale services, and privacy protection all contribute to the promotion of a vibrant Canadian communications system. However, there are serious issues with an approach that views UBB as a simple market mechanism that unproblematically results in positive outcomes. In fact, UBB’s link to its purported designed need is tenuous at best. UBB is at the heart of the market failure that is the subject of this application, and as such I believe that it merits considerable scrutiny.

126. In light of the increasing importance of wireless data services in the lives of Canadians, and the apparent failure of market forces to spur innovative service offerings, it is my sincere hope that the Commission will take whatever action is necessary to ensure that users and providers of Internet services in Canada are treated fairly by the WSPs upon whom they rely.

**Concluding Remarks**

127. I consider myself blessed to be part of a supporting family, workplace, and community. Together, these factors have allowed me to dedicate the many hours of work it took to put together this application.

128. Most Canadians simply don’t have the time to devote to such endeavours, yet we have no choice but to grin and bear the unjust practices of our wireless providers.

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57 CRTC 2009-657, paragraph 3.
129. At a time when the Commission is asking Canadians to ‘talk TV,’ I believe that the information contained in this application and the requests made herein could be instrumental to ensuring that Canadians have an informed understanding of their communications environment.

130. My goal in writing and submitting this application has been to provide you with the truth that, left unchecked, Bell has abused the public trust invested in it as Canada’s largest communications company.

131. It is my sincere hope that you will use whatever powers are at your disposal to protect the public interest in these matters.

I would like to thank the Commission for considering this application.

Yours truly,

Ben Klass
Appendix A: Bell Mobility: Mobile TV and UBB, Manitoba vs Ontario

This analysis is based on the advertised rates found on Bell’s website as of November 13, 2013. As such, it is based on the assumption that Bell earns revenue of at least $5/month per Mobile TV subscriber, except under circumstances under which the “Mobile TV add-on” is offered as a “bonus add-on” (for free). This figure may be greater depending on usage. The analysis also assumes that a customer does not exceed their usage limits, except in the case of Table 3. Bell’s itemized financial reporting does not include line items for wireless data revenue or Mobile TV revenue, and therefore this analysis must be construed as a best-effort estimate based on the information that is readily available to consumers. Monthly plans offered by Bell in Alberta and Ontario are identical.

I compared the 5GB Mobile TV data add-on with the “Tablet Flex” plan, which offers only data, up to a 5GB cap.

Table 1 shows that Bell marks up competing services that use data (including but not limited to Netflix, Youtube, and Telus’s Optik-on-the-Go app) by 800%.

<table>
<thead>
<tr>
<th>Mobile TV Add-On 5GB of Mobile TV data</th>
<th>Tablet Flex Plan 5GB of Any Data</th>
<th>Non-Bell Data Markup</th>
</tr>
</thead>
<tbody>
<tr>
<td>Month-to-Month, Manitoba</td>
<td>$5</td>
<td>$40.00</td>
</tr>
<tr>
<td>Month-to-Month, Ontario/Alberta</td>
<td>$5</td>
<td>$40.00</td>
</tr>
</tbody>
</table>

Source: Bell Website, Nov 13, 2013

Table 2 shows a comparison between the data overage fees charged for 500MB of usage (equivalent to 1 hour of Mobile TV programming) beyond the 5GB data caps that apply to the Mobile TV add-on and the Tablet Flex plan.

<table>
<thead>
<tr>
<th>Data Overage Fee per 500MB, past 5GB cap</th>
<th>Mobile TV add-on</th>
<th>Tablet Flex Plan</th>
<th>Non-Bell Data Overage Fee Markup</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$3</td>
<td>$5</td>
<td>166.67%</td>
</tr>
</tbody>
</table>

Source: Bell Website, November 13, 2013

Table 3 shows a comparison between a 1GB voice and data plan offered by Bell Mobility in Manitoba and the same 1GB voice and data plan offered by Bell Mobility in Ontario. The Ontario plan includes a ‘bonus’ 1GB of data, as a promotion which is set to expire January 6, 2014. This comparison assumes that the Ontario plan will revert to 1GB after that date, for the same price. The only other difference in these plans is the province in which they are offered.
Table 3: Manitoba vs Ontario/Alberta Voice & Data Plus 1GB Rate Plans

<table>
<thead>
<tr>
<th></th>
<th>Manitoba (Monthly Rate)</th>
<th>Ontario/Alberta (Monthly Rate)</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1GB Voice &amp; Data Plus Rate Plan, 2-year contract</td>
<td>$55.00</td>
<td>$85.00</td>
<td>$30.00</td>
</tr>
</tbody>
</table>

Sources: Bell Website, Nov 13, 2013

Table 4 compares overage fees in Manitoba vs Ontario for the plan described in Table 3.

Table 4: Data Overage Fees, Manitoba vs Ontario/Alberta

<table>
<thead>
<tr>
<th></th>
<th>Manitoba</th>
<th>Ontario</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 GB Voice &amp; Data Plus Plan, Data Overage Fee per 500MB, past 5GB cap</td>
<td>$10</td>
<td>$25.00</td>
</tr>
</tbody>
</table>

Table 5 compares roughly price equivalent (ON/AB price = 1.07 times MB price) rate plans in terms of the data caps offered.

Table 5: Roughly equivalent Price Voice & Data Plus Plan, MB vs ON/AB

<table>
<thead>
<tr>
<th></th>
<th>Manitoba Data Cap</th>
<th>Ontario/Alberta Data Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice &amp; Data Plus 65 Rate Plan, MB $65/mo.</td>
<td>5GB</td>
<td>N/A</td>
</tr>
<tr>
<td>Voice &amp; Data Plus 70 Rate Plan, ON/AB $70/mo.</td>
<td>N/A</td>
<td>250MB</td>
</tr>
</tbody>
</table>

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