

# Benjamin Klass

Box 22, Whiteshell Post Office West Hawk Lake, MB, RoE 2Ho

Mobile 204-998-2983 Email benjiklass@hotmail.com

benklass.wordpress.com

**Submitted via GC-Key** 

March 5, 2014

Mr. John Traversy Secretary General Canadian Radio-television and Telecommunications Commission Ottawa, ON K1A oN2

Dear Mr. Traversy,

Subject: Part 1 application by Benjamin Klass requesting the fair treatment of Internet services by Bell Mobility and Part 1 Applications by CAC-COSCO-PIAC regarding Rogers' Anyplace TV service and Videotron's Illico.tv Service (CRTC files 201316646, 8622-P8-201400142 and 86-22-P8-20140013)

Pursuant to the Commission's procedural letter dated January 31, please find in this document my comments to the March 5 phase of this proceeding.

I am in receipt of the interventions and answer posted on the Commission's website.

Pursuant to subsection 39(1) of the *Telecommunications Act*, I am submitting in confidence a full copy of my Bell Mobility monthly wireless bill. An abridged version with relevant information visible is presented below. As an individual, I believe I have a reasonable expectation to privacy of information such as account details. This mobile plan does not include minutes, so release of the number listed in the bill may result in incoming calls that would incur unnecessary costs to myself.

#### EXECUTIVE SUMMARY

- E1. The wireless operations of Bell, Rogers, and Vidéotron each offer a mobile TV service which is not currently subject to the data caps that apply to all other wireless data traffic. Of these three, at this time only Bell's comments are on the record, and so I will primarily address the issue of undue preference and unjust discrimination by focusing on Bell. However, general arguments may be applied, *mutatis mutandis*, to the other Canadian carriers where appropriate. The final reply phase should provide opportunity to respond to Rogers and Vidéotron.
- E2. I maintain that the vertically integrated companies confer an undue preference upon themselves by exempting the delivery of their broadcasting services from data caps. The situation of undue preference and unjust discrimination is in contravention of the *Telecommunications Act* and is contrary to the similar provision found in the Digital Media Exemption Order.
- E3. Bell's appeal to legislative or regulatory distinctions have no bearing on consumers' interaction with these services. Furthermore, evidence presented below demonstrates that Bell has thus far failed to meet the burden of establishing that the preference it gives itself viz. its Mobile TV service is not undue.
- E4. Digital Media Broadcasting Undertaking (DMBU) services are delivered by wireless carriers under substantially similar circumstances, whether those services originate from the Internet or not. All wireless services are delivered over the same respective telecommunications facilities, and therefore contribute to network costs and congestion proportionately. Given these similarities, the discriminatory practices of the wireless carriers are unjustified, as described in the Klass application, the two applications filed subsequently by PIAC, and this document.
- E5. Fair and equal treatment of DMBUs, regardless of whether they are delivered over the Internet or not, is consistent with the development of the Digital Media Exemption Order, in particular the phases between 2005 and 2012 in which mobile services figured prominently.
- E6. The Commission's approach to claims regarding unjust discrimination and undue preference have consistently involved consideration of the public interest, which includes not just society's interest in increased competition but the effect of discrimination on the fulfilment of statutory policy objectives. Additionally, in this particular case society's interest the freedom to use the Internet for various purposes, as elaborated in the ITMP framework, deserves consideration.

# **TABLE OF CONTENTS**

## **INTRODUCTION**

PARAGRAPHS 1-7

## THE VIEW FROM THE WAITING ROOM

PARAGRAPHS 8-23

**MOBILE TV: AN OVER-THE-TOP SERVICE** 

PARAGRAPHS 24-38

## DISTRIBUTION UNDERTAKINGS VS MOBILE BROADCASTING

PARAGRAPHS 39-46

## FAIR TREATMENT UNDER THE DMEO

PARAGRAPHS 47 - 62

## FAIR TREATMENT IS IN THE PUBLIC INTEREST

PARAGRAPHS 62 - 77

## **CONCLUSION**

PARAGRAPHS 78-83

### Introduction

- The Digital Media Exemption Order exempts from broadcasting regulation digital media broadcasting undertakings ("DMBUs") – including services delivered over the public Internet and services delivered point-to-point to mobile devices. It does not exempt "Canadian carriers" from telecommunications regulation with respect to their common carrier activities.
- 2. When customers access Mobile TV using Bell Mobility's wireless telecommunications facility, the service is subject to one of two legal classifications: either it is a "broadcasting service" that is BOTH "accessed and delivered over the Internet" AND "delivered using point-to-point technology and received by way of mobile devices"; or it is "delivered using point-to-point technology and received by way of mobile devices" but is NOT "accessed and delivered over the Internet."
- 3. In plain English, either Mobile TV is delivered over the Internet, or it is not.
- 4. It is uncertain from the record of this proceeding which of these classifications is correct. Bell appears to argue that Mobile TV is of the latter variety when it compares its operation to the relationship between wireline carriers and their jointly owned BDUs. On the other hand, evidence submitted by Vaxination suggests that Mobile TV is delivered over the Internet.
- 5. In either case, however, Mobile TV is accessed and delivered over the same telecommunications facility that is used by Bell Mobility customers when accessing any other over-the-top ("OTT"), Internet or telecommunications service. Bell has not contradicted this in its statements on the record.
- 6. The issues in this proceeding may therefore be summarized as follows:
  - Under the *Telecommunications Act*: whether Bell Mobility's Mobile TV service is accessed and delivered under substantially similar terms and circumstances that apply to other DMBUs, Internet services and other telecommunications services using Bell Mobility's telecommunications facility. The Commission has the authority under the Act to examine complaints of prima facie preferential treatment by a Canadian carrier of any person, including itself or affiliates, and to determine whether any such preference is undue.
  - Under the *Broadcasting Act:* If Mobile TV is not delivered over the Internet, whether, under the Digital Media Exemption Order ("DMEO"), Bell Mobility has authority to allocate network capacity to its own Mobile TV DMBU without demonstrating to the Commission that this does not

- contribute to network congestion that can degrade the experience of users of the Internet and other telecommunications services carried on its network.
- 7. Bell acknowledges price discrimination when it states: "practically speaking, the application of distinct and different Bell Mobility pricing of its broadcasting and Internet access services is no different from similar distinct pricing practices in the wireline world." This comparison does not stand up under scrutiny, as discussed below. As well, Bell does not dispute the very significant price and usage cap differences that apply to this service, as demonstrated on the record of this proceeding. I maintain that this differential treatment constitutes an unduly preferential practice.

## THE VIEW FROM THE WAITING ROOM

- 8. Mobile TV is a bandwidth-intensive service delivered to customers' mobile devices via Bell Mobility's wireless broadband transmission facility. Customers access this service by selecting a video from an application ("app") on their Internet-enabled tablet or smartphone.
- 9. The distinction between "delivery over the Internet" and "point-to-point delivery" does not exist for consumers who access content on their mobile devices. From this perspective, the Mobile TV application operates no differently than any other Internet-enabled mobile application; there is no substantial difference between selecting a video from the Mobile TV app and selecting a video from any other app.
- 10. A wide variety of similar apps is available from a large number of providers, including other BCE-owned operations. Some apps, such as Netflix, rely on a stand alone subscription. Others are provided as a public service, such as those offered by the CBC and the National Film Board. Some are supported by advertising (e.g. Youtube). Still others require a

Figure 1

Occident of the property of the prop

Smartphone w/DMBUs

subscription to a terrestrial or satellite-based distribution service and/or specialty channels.

- 11. Telus cautions that a service of the latter type, Bell's "TV Everywhere," should not be confused with Mobile TV, since it claims the two are in fact distinct services.¹ Consumers will perhaps be forgiven for making such a conflation, as both services are accessed using the very same app (pictured above, figure 1). Does the actual method of transmission differ substantially between apps and within single apps?
- 12. Bell provides a "Self Serve" tool to customers which is intended to "help you manage your data usage," since Bell Mobility rate plans are subject to monthly data caps and people have a reasonable expectation to be provided with information sufficient to assist in avoiding punitive overage fees. Figure 2 shows the meter as seen by a Bell customer during a current billing period:

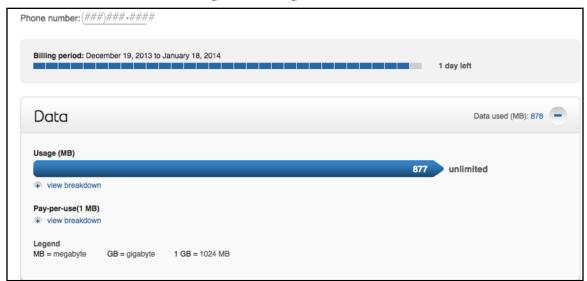
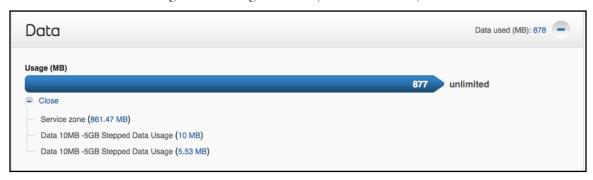


Figure 2: Usage Meter

13. Figure 2 shows my data usage during the billing period between December 18, 2013 and January 18, 2014. During this time, I downloaded the Mobile TV app, sent and received several iMessages, checked my email, and watched just less than 2 hours of Mobile TV programming. The lion's share of my data usage was caused by watching Mobile TV. This tool reveals that Bell bills by the MB, not by the hour as advertised. Additionally, viewing is not presented in a separate graphic usage meter from other data consumption.

<sup>&</sup>lt;sup>1</sup> Telus submission of Jan 9, 2014, paragraph 26.

Figure 3: Usage Meter (w/breakdown)



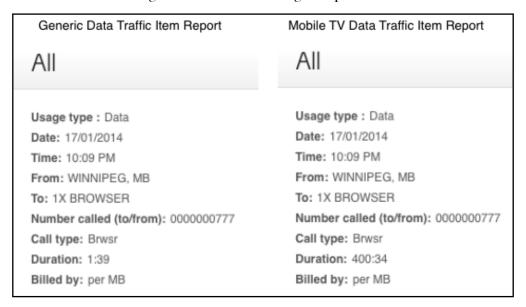
- 14. Figure 3 shows what is displayed when the "view breakdown" option is selected, and demonstrates several things of note. First, I am operating under the assumption that "Service zone" is a description field placeholder meant to eventually be replaced with "Mobile TV" by Bell's billing department. (Other Bell customers who do not subscribe to Mobile TV have informed me that use of Bell's self serve app also contributes to "service zone" data.) Second, I have not subscribed to an "unlimited" plan, but rather a "stepped" plan, which incurs charges of \$15 past 10MB of usage, an additional \$20 past 1GB, and \$10/GB after 5GB. Third, and perhaps most important, is that this figure demonstrates all data traffic, including Mobile TV, is measured together on Bell's network the only difference between Mobile TV traffic and other Internet traffic appears to be in the billing, not in the network.
- 15. Usage is presented without substantial differentiation to the consumer, with Mobile TV data only being found (ambiguously) identified in a third-tier small print menu. This presentation runs counter to the standard practice of jointly owned broadcasting distribution undertakings ("BDUs") and ISPs; for example, Fibe TV viewing does not appear as "MB" intermixed with other data usage on Fibe Internet users' data usage reports because Fibe TV is delivered over a broadcast network, not the Internet.
- 16. When viewing the itemized monthly data usage tool provided by Bell Mobility, the customer is presented with more detailed information regarding data transfers, for example:

Figure 4: Detailed Usage Report

Data	22/01/2014	000 000-0777	Brwsr	Q
Data	22/01/2014	000 000-0777	Brwsr	Q
Data	22/01/2014	000 000-0777	Brwsr	Q
Data	22/01/2014	000 000-0777	Brwsr	Q

17. Some of the data sessions shown in figure 4 (from the Bell self serve webpage) represent Mobile TV usage, and others represent other data usage. They are completely indistinguishable.

Figure 5: Detailed Usage Reports



- 18. Figure 5 shows individual item reports provided by Bell's usage tracker (accessed by clicking the magnifying glass icon) for Internet traffic (on the left) and Mobile TV (on the right). Note that these data sessions are not differentiated according to whether the traffic results from Mobile TV viewing or other Internet use.
- 19. The monthly bill is presented in figures 6 and 7 for the public record. Note that Mobile TV usage is presented as "service zone" data under the "data usage" heading, and billed "@\$.oo/MB." As well, it is included in the FYI summary lumped together with other data usage.
- 20. Itemized reporting found in the monthly bill further confirms that Mobile TV traffic is identified as "Brwsr" type traffic, as is all other "packet data" traffic on Bell's network.
- 21. A full version of this bill is provided in confidence to the Commission, pursuant to section 39(1) of the *Rules of Practice and Procedure*. The bill contains account information that is not publicly available, as well as a private phone number. (Release of the latter would cause me financial harm and mental stress since answering the phone to hear "this is your captain speaking..." would incur by-the-minute airtime charges.)

Figure 6: Monthly Bill overview

Monthly charges billed	d to Feb 18, 2014			FOR YOUR INFORMATION	
Tablet Flex 30 day (SIM only)			5.00	Event Summary	
Includes: Detail Billi	ng			Total Events	15
Mobile TV			5.00	Total this month	\$0.00
Data 10MB -5GB Stepped			0.00	Packet Plan Usage Summary	
Other charges and credit	·e			Total megabytes	878.003
Data 10MB -5GB Stepped	Jan 16 to	Jan 18	0.00	Total this month	\$15.00
Tablet Flex 30 day (SIM only)	Jan 16 to	Jan 18	0.50		
Mobile TV	Jan 16 to	Jan 18	0.50		
Usage					
Data					
Service zone					
@\$.00/MB	861.4726 MB		0.00		
Data 10MB -5GB Stepped Da	ata Usage		15.00		
Rate Details:	Data Used	Tier Charged			
Up to 10 MB	Exceeded	0.00			
Up to 1 GB	16.5312 MB	15.00			
Up to 5 GB		35.00			
Over 5 GB (\$10/GB)					
LEGEND					
MB = Megabyte	GB = Gigabyte	1 GB = 1024 MB			

Figure 7: Monthly Bill, itemized reporting

10.	date	type	details	data volume	rate	billed by	tota
	Thu Jan 16	Brwsr	Mobile Browser	5.2656	0.00	MB	0.00
2		Brwsr	Mobile Browser	0.9863	0.00	MB	0.00
3		Brwsr	Mobile Browser	8.6289	0.00	MB	15.00
1	Fri Jan 17	Brwsr	Mobile Browser	1.6504	0.00	MB	0.00
				Total usage			15.00
				Subtotal			\$15.00
	EMIZED Cocket Data	ALLS					
Pa		type	details	data volume	rate	billed by	total
Pa(	cket Data		details Service zone	data volume 0.0195		billed by	
Pac	cket Data	type			rate 0.00 0.00	•	total 0.00 0.00
Pac no. 9 10	cket Data date Thu Jan 16	type Brwsr	Service zone	0.0195	0.00	МВ	0.00 0.00 0.00
Pac no. 9 10	cket Data date Thu Jan 16	type Brwsr Brwsr	Service zone Service zone	0.0195 49.6406	0.00 0.00	MB MB	0.00
Pac no. 10 11 12	cket Data date Thu Jan 16	type Brwsr Brwsr Brwsr	Service zone Service zone Service zone	0.0195 49.6406 0.0557	0.00 0.00 0.00	MB MB MB	0.00 0.00 0.00 0.00
Pac no. 9 10 11 12 13	cket Data date Thu Jan 16	type Brwsr Brwsr Brwsr Brwsr	Service zone Service zone Service zone Service zone	0.0195 49.6406 0.0557 411.1719	0.00 0.00 0.00 0.00	MB MB MB MB	0.00 0.00 0.00
	cket Data date Thu Jan 16 " Fri Jan 17	type Brwsr Brwsr Brwsr Brwsr Brwsr	Service zone Service zone Service zone Service zone Service zone	0.0195 49.6406 0.0557 411.1719 0.0029	0.00 0.00 0.00 0.00 0.00	MB MB MB MB	0.00 0.00 0.00 0.00 0.00

- 22. The fact that Bell advertises Mobile TV usage by one measure and bills by another strikes me as cause for concern; it creates uncertainty as to when overage fees will kick in. Also worrying is the practice of lumping Mobile TV and other data usage together in a meter intended to inform customers when they are near their data limit, given that only 2 hours of Mobile TV viewing consumes roughly 1GB and is advertised as not affecting your data allotment. Consumers who rely on this meter to avoid overage fees will likely curb their use of other Internet services (competing and otherwise) due to Mobile TV's inflation of the meter.
- 23. These issues are indicative of the underlying preferential and discriminatory practices under examination in this proceeding. Confusing or misleading billing practices are often symptoms of unjust discriminatory treatment of substantially similar services. The evidence presented above demonstrates that, from the perspective of consumers, Mobile TV is accessed and delivered under substantially similar conditions to other Internet-originated telecommunications services, despite being treated differently by Bell from a pricing perspective and regardless of statutory and/or regulatory classification.

## MOBILE TV: AS AN OVER-THE-TOP SERVICE

- 24. Bell states that "Mobile TV is the kind of innovative, consumer-oriented broadcast service that the Commission intended to encourage when it first created licence-exempt new media broadcasting undertakings in 1999."<sup>2</sup>
- 25. In Broadcasting Public Notice 1999-84/Telecom Public Notice 99-84, the Commission noted that "parties to the proceeding assumed new media to be services delivered over the Internet," and the Commission did not "consider it necessary to define the term further."<sup>3</sup>
- 26. If that definition applies to Mobile TV, the Commission should reasonably conclude that it is a broadcasting service delivered over the Internet. If Bell is correct in arguing that the Internet traffic management practices ("ITMP") framework does not apply to Mobile TV because it is a broadcasting service, then the same logic applies to all DMBUs on the Internet, where Bell's Mobile TV is just one DMBU among many Canadian and foreign. Bell's argument provides no justification to support preferential treatment of its own service. The record shows that there is a clear preference in the way it is offered vis-à-vis other DMBUs delivered over the Internet, including services of the CBC, the NFB, and other public and private broadcasters, which Bell has not disputed.

<sup>&</sup>lt;sup>2</sup> Bell answer of January 9, 2014, paragraph E1.

<sup>&</sup>lt;sup>3</sup> Broadcasting/Telecom Public Notice CRTC 1999-84.

- 27. Since 1999, the Commission has had cause to reexamine new media with unusual frequency.<sup>4</sup> One thing that has remained constant throughout such deliberations is that new media services have always been defined, in part, in terms of the telecommunications service by which they are delivered. This is true whether that telecommunications service is an Internet service or whether it is a point-to-point data service received by way of mobile phones.
- 28. From a technical perspective, mobile devices are each assigned one IP address. When selecting a video, the request for a connection is initiated from the device and travels through Bell Mobility's telecommunications facility. The server responding to the IP request does so by streaming the video content back to the receiver, whether that server belongs to Bell Mobile TV or any other undertaking.
- 29. When accessed over Bell's wireless network, all digital media services are transmitted to customers' mobile devices using HSPA or LTE protocols over the shared wireless "last mile" of Bell's network. Similarly, when not using Bell's facility, Internet-enabled apps (including the Mobile TV app) rely on wireless connectivity (i.e. "Wi-Fi" or other carriers' wireless networks) as part of the transmission path.
- 30. When a DMBU streams programming to a Bell Mobility customer, data are sent to an access point name ("APN") router within Bell's telecommunications facility. From there, data are routed to the appropriate tower and transmitted wirelessly for the last mile to the user's handset. This is true of every DMBU. To access the signals, the user's mobile device must connect to Bell's APN. When a customer watches Mobile TV, Bell's network identifies this traffic as "Browser" traffic, just as it does for all mobile Internet traffic. Bell provides the Mobile TV users with a separate app, but not a separate IP address, wireless distribution channel, nor even a separate usage meter for the traffic thus generated. Any OTT service would usually provide its subscribers with programming under similar circumstances.
- 31. When accessed over a Wi-Fi network, Bell Mobile TV is delivered over the Internet by a separate and distinct wireline or wireless telecommunications common carrier, using Internet Protocol ("IP"). Telecommunications common carriers providing this delivery, including Bell Canada's wireline ISP operation, are subject to the *Telecommunications Act*; such delivery is subject to the ITMP framework applies to all Internet traffic.
- **32.** Similarly, when accessed over Bell Mobility's wireless telecommunications facility, Mobile TV is delivered over the shared facilities of a

<sup>&</sup>lt;sup>4</sup> For a handy overview, see: CRTC "New Media Regulatory Background" <a href="http://www.crtc.gc.ca/eng/media/media2.htm">http://www.crtc.gc.ca/eng/media/media2.htm</a>

- telecommunications common carrier, using precisely the same protocols as it does in the previous case. Bell, however, argues that this delivery of Mobile TV is *ultra vires* the *Telecommunications Act*.
- 33. Mobile TV programming such as "The Ellen Degeneres Show," "Criminal Minds," and "The Daily Show," is delivered to the end-user's mobile device and recorded on subscriber usage reports as wireless "packet data." BDU and VoD services delivered on jointly owned wireline networks, on the other hand, are not recorded on ISP usage meters. If the Mobile TV service is indeed delivered over the Internet, as it appears to be, then part of the \$5 customers are charged for access to Mobile TV constitutes an ITMP that is substantially less than the ITMP which applies to other Internet traffic.
- 34. Given that it is also available in conjunction with other carriers' ISP services and Wi-Fi, Mobile TV appears to meet the definition of an over-the-top service, defined by the CRTC in 2011 as follows:
- 35. "The Commission considers that Internet access to programming independent of a facility or network dedicated to its delivery (via, for example, cable or satellite) is the defining feature of what have been termed "over-the-top" services." 5
- 36. If Mobile TV is an OTT service, then exempting it from data caps creates an undue advantage. Moreover, the fact that it is cheaper to access certain broadcasting services via Mobile TV's "walled garden" than to access those same services on the open Internet suggests that Bell Mobility subscribers who choose not to take Mobile TV cross-subsidize those who do. This may explain why Mobile TV is generally bundled with wireless service.
- 37. Bell has provided no evidence on the record to suggest that such a preference is not undue; rather Bell argues that the ITMP rules do not apply because Mobile TV is a broadcasting service specifically, a DMBU. The fact that the service is a DMBU is no justification for preferential treatment vis-à-vis other DMBUs and other services delivered via the Internet. Absent any justification, the fact that Canadian carrier Bell Mobility grants this preferential treatment only to its own DMBU in a manner that is clearly disadvantageous to competitors delivered via the Internet is *prima facie* evidence of a preference that is undue.
- 38. "Access and delivery over the Internet" is a Canadian carrier service captured by the *Telecommunications Act*. For DMBUs such as the CBC app, the NFB app, and Netflix, the same is true of "point-to-point delivery received by way of mobile devices." It is by no means certain in the case of Bell Mobile TV that

<sup>&</sup>lt;sup>5</sup> CRTC "Results of the fact-finding exercise on the over-the-top programming services", footnote 2, http://www.crtc.gc.ca/eng/publications/reports/rp1110.htm

Internet and point-to-point mobile delivery are mutually exclusive categories. If the Canadian carrier Bell Mobility delivers Mobile TV service via the Internet in combination with point-to-point to mobile devices, Bell has provided no justification for preferential treatment.

## DISTRIBUTION UNDERTAKINGS vs MOBILE BROADCASTING

- 39. In comparing its Mobile TV service operation to the relationship between land line carriers and their jointly owned BDUs, Bell suggests but does not state that Mobile TV is not delivered over the public Internet when accessed on its wireless telecommunications facility. Arguments presented by Bell in this proceeding are not clear on the matter.
- 40. Bell claims that Mobile TV is a "mobile distribution undertaking" by way of reference to section 3(1)(t) of the *Broadcasting Act*. In support of this argument, Bell compares the relationship between Mobile TV and its wireless Internet services to that of jointly owned wireline BDUs and carrier/ISPs. While Mobile TV may bear resemblance to a BDU, the comparison is otherwise inaccurate in two respects: first, in the "wireline world," BDUs are subject to regulatory requirements either by license or by conditions of exemption; and second they have dedicated facilities or network capacity which prevent broadcasting services from contributing to network congestion that can degrade the experience of Internet service users. In the context of this proceeding, these are significant differences.
- 41. As Vaxination notes, Bell's Fibe IPTV service was exempted from data caps because "the Commission accepted Bell Canada's arguments that Fibe TV used different capacity in the aggregation network." Vaxination states further that "According to Bell Canada, Fibe TV is not an Internet service, is not accessible from the Internet and its capacity is separate from that of the GAS [Gateway Access Service]/Bell Internet aggregation networks" (Paragraph 9).
- 42. Bell Fibe TV is received by way of a dedicated "set top box" which is not connected to the Internet. From end to end, delivery of the Fibe TV service over Bell's transmission facility is separated from Internet traffic. The Fibe TV set top box is assigned a separate IP address, to which content is transmitted over a virtual local area network ("VLAN") which segregates broadcasting from Internet traffic. As well, the "last mile" between neighbourhood nodes ("DSLAMs") and end-users' residences provides physically separated links between households, ensuring one subscriber's network usage does not affect capacity available to another home.
- 43. Cable-TV networks provide similarly separated capacity and access for broadcasting and telecommunications services, including Internet access.

- 44. Conversely, mobile devices are used to access the Internet. Mobile TV itself is accessible from the Internet. Nothing on the record indicates that Bell Mobility has installed dedicated software or hardware components to segregate its Mobile TV service from Internet traffic. Users' mobile devices are not assigned more than one IP address for use with HSPA or LTE network protocols. As noted above, Bell's network itself identifies Mobile TV traffic as "Browser" traffic, just as it does for all Internet traffic.
- 45. Unlike the operations of incumbents' jointly owned wireline broadcaster/carriers, there is no evidence to suggest that network capacity in Bell Mobility's wireless last mile is in any way separated between Mobile TV traffic and Internet traffic, on the one hand, or between distinct end-users on the other.
- 46. In fact, the notion that the delivery of Mobile TV content takes place using a Canadian carrier service has a parallel in the wired world not mentioned in Bell's answer. Vmedia, Acanac (Zazeen), and Colba.net are wireline ISPs which are also licensed broadcasting distribution undertakings. These BDUs have no managed facilities for distributing programming and do not treat their licensed broadcasting activities differently from Internet access services. Each delivers IPTV service over a shared facility, using wholesale high speed access services. Such delivery is subject to the ITMP framework. Furthermore, customers cannot subscribe to the unlimited IPTV service offered by these companies without also subscribing to an unlimited Internet access plan.<sup>6</sup> In other words, in the wireline world, ISPs who offer broadcasting and Internet access services using the same facilities *treat all traffic equally*. Were any of these companies to offer a BDU-specific ITMP, section 27(2) of the *Telecommunications Act* would certainly be triggered.

## FAIR TREATMENT UNDER THE DMEO

- 47. By its nature, Mobile TV is a bandwidth-intensive service. To the extent that Bell's mobile network is susceptible to capacity constraints, it is reasonable to conclude that use of Mobile TV contributes to network costs and congestion in proportion to similar use of Internet services. The fact that Mobile TV is, like Internet access, priced to constrain usage albeit very favourably supports this argument.
- 48. In the Exemption Order for Mobile Television Broadcasting Undertakings (Broadcasting Public Notice CRTC 2007-13), the Commission recognized that:

<sup>&</sup>lt;sup>6</sup> Vmedia and Acanac only offer unlimited Internet plans. Colba.net offers capped plans, but the IPTV service is only available with unlimited plans. See: <u>vmedia.ca</u>, <u>zazeen.com</u>, and <u>https://www.colba.net/main.php?lang=en&cont=iptv</u>

"While point-to-point [as opposed to point-to-multipoint] delivery provides users with a greater degree of choice and interactive capabilities, the disadvantage of such networks is that each user requires a separate data stream, thereby potentially consuming considerable network bandwidth overall. As an increasing number of users try to access content, the point-to-point network becomes congested, which, in turn, can prevent new users from accessing content and detract from the experience of current users."

- 49. In the case of Mobile TV, the point-to-point network subject to congestion with increasing use is shared by users of the Mobile TV service, Bell-affiliated telecommunications services, other non-affiliated Internet services, and customers of roaming and network sharing partners.
- 50. Bell states that it has made "wireless network enhancements [that are] necessary to accommodate this increased mobile traffic," without indicating whether those enhancements are exclusively dedicated to Mobile TV traffic, on the one hand, or whether they also accommodate Internet traffic on the other. Although the record is unclear on this matter, unless the enhancements both a.) accommodate Mobile TV traffic exclusively, and b.) prevent Mobile TV traffic from causing network congestion (and thus degradation to the experience of Internet users), then it is clear that Bell's network does not constitute a facility for dedicated distribution of Mobile TV. Unless both of these conditions hold, price discrimination between the delivery of Mobile TV and Internet access services, by encouraging disproportionate use of shared network resources and potentially causing a degraded experience for mobile Internet users, unduly prefers Bell services, puts competing broadcasters at an unfair disadvantage, and unnecessarily harms customers and providers of other Internet-accessible services.
- 51. If the "network enhancements" to which Bell refers are not specifically dedicated to the delivery of Mobile TV content, then it may be the case that Bell's network capacity is significantly abundant that it can offer customers at least 5GB of network access for \$5 (or \$0 as a "bonus") per month without fear of creating network congestion, as contemplated in the initial Klass application. In other words, in this case, network investment will have obviated the need for the data caps as currently applied raising the question of how Bell justifies using economic ITMPs which are not related to the management of congestion.

<sup>&</sup>lt;sup>7</sup> Paragraph 25, BPN 2007-13 "Exemption Order for Mobile Television Broadcasting Undertakings" <a href="http://www.crtc.gc.ca/eng/archive/2007/pb2007-13.htm">http://www.crtc.gc.ca/eng/archive/2007/pb2007-13.htm</a> (emphasis added.)

<sup>&</sup>lt;sup>8</sup> Bell answer of January 9, 2014, paragraph 14.

<sup>&</sup>lt;sup>9</sup> Klass application of November 20, 2013. Paragraphs 31-44.

- 52. As it stands, Bell reserves this preferential network access for Mobile TV subscribers. Unless Mobile TV is delivered over a separate network, the implication of the existing arrangement is that current data caps that apply to services which use that same network cannot be within the "legitimate interests of ISPs to manage traffic" on their networks in other words, the existing data caps unjustly interfere with the freedom of Canadians to use the Internet for various purposes under the ITMP framework and section 7 of the *Telecommunications Act*.
- 53. A recent OECD report entitled "Connected Televisions: Convergence and Emerging Business Models" notes that:
  - "Some commentators have made a distinction between managed and over-the-top connected television services and this wording has featured in some regulatory decisions. The term "managed" refers to a service offered by the broadband network operator. This network operator manages the service by providing dedicated bandwidth for the service and creating a special QoS [quality of service] class, by using multicast or by having the facilities closer to the enduser." (emphasis added)
- 54. Bell's comments on the record of this proceeding thus far have provided no evidence to suggest that its Mobile TV is a managed service so defined.
- 55. With regard to discrimination against competing DMBUs, the relationship between a license-exempt broadcasting undertaking that provides service using the shared facilities of a jointly owned Canadian carrier, on the one hand, and the relationship between non-affiliated service providers and that same carrier, on the other, must be considered. In BPN CRTC 2006-47, the Commission was of the view that:

"there may be compelling reasons why, in the future, mobile providers might seek alternatives to the Internet for the purpose of distributing these mobile television broadcasting services. [...] As a result, wireless

<sup>&</sup>lt;sup>10</sup> OECD, "Connected Televisions: Convergence and Emerging Business Models", prepared by Rudolf van der Berg, available at <a href="http://www.oecd-ilibrary.org/science-and-technology/connected-televisions-5jzb36wjqkvg-en">http://www.oecd-ilibrary.org/science-and-technology/connected-televisions-5jzb36wjqkvg-en</a>

<sup>&</sup>lt;sup>11</sup> ibid, p28. Note that "having facilities closer to the end-user" is a trait that features in the delivery of Internet broadcasting services: Netflix and other OTT providers offer "content delivery networks" (CDNs) to improve customers' experiences. These CDNs may in some cases be integrated within carriers' networks; those same carriers also often "cache" Internet data in order to reduce load times for users' access to Internet content. Thus it may be more appropriate to view the defining features of a "managed service" as primarily the use of multicast or, alternatively, QoS and dedicated bandwidth.

carriers may wish to establish a managed network or dedicated link with MobiTV (or an alternative content provider) to deliver these services."<sup>12</sup>

- 56. It is not clear from the records of BPNs 2006-47, 2006-48, or the resulting 2007-13 whether the Commission considered "alternative content providers" to include affiliated or jointly owned license-exempt broadcasting undertakings.
- 57. However, there are two things that are clear: first, when the Commission revoked the exemption order for mobile television broadcasting services and amended the new media exemption order to include such services, its stated expectation was that "all mobile undertakings will be treated similarly, whether they rely on point-to-point or Internet technology." Second, vertical integration in the Canadian communications industry has become a pronounced phenomenon that creates incentives for VI firms to pursue unduly preferential business practices.
- 58. A compelling reason for a vertically integrated communications conglomerate to use its Canadian carrier facilities to deliver affiliated broadcasting services is the potential to bestow a preference upon those services in order to "mitigate the risk" of "the increased adoption by customers of alternative TV services." The Commission registered concerns relating to this possibility in the 2009 Review of Broadcasting in New Media (BRP CRTC 2009-329):
  - "A number of content providers argued that despite new media's promise of open access, there are gatekeepers in the new media environment with the power to give certain content providers preferred access to their platforms and customer base. During the Proceeding, this issue was most frequently discussed with respect to wireless carriers that offer walled garden mobile entertainment packages." <sup>15</sup>
- 59. In its determinations, the Commission stated the following:

"The Commission takes no position on whether situations of undue preference with respect to broadcasting content have or have not occurred to date in the new media environment. The Commission considers, however, that the ownership structure within Canada's wireless industry suggests that the potential for unduly preferential treatment needs to be addressed because the industry structure

<sup>&</sup>lt;sup>12</sup> Broadcasting Public Notice CRTC 2006-47, paragraph 47.

<sup>&</sup>lt;sup>13</sup> Broadcasting Regulatory Policy CRTC 2009-329, paragraph 33.

<sup>&</sup>lt;sup>14</sup> BCE, as quoted in Klass application of November 20, 2013, paragraphs 49 & 50.

<sup>&</sup>lt;sup>15</sup> BRP CRTC 2009-329, paragraph 56.

- comprises vertically integrated companies with ownership interests in content providers.<sup>16</sup>"
- 60. Mobile TV is a service that generates revenues for Bell in competition with a growing range of private and public DMBU services delivered via the Internet. Moreover, the majority of programming offered by Mobile TV consists of channels owned by Canada's 4 largest vertically integrated communication companies. Bell has an ownership stake in the single largest proportion, with 15 of 44 channels, including the 4 channels that are "BCE-related." <sup>17</sup>
- 61. The evidence presented above demonstrates that Bell's comparison of its Mobile TV operation to those of jointly owned wireline broadcaster/carriers is seriously flawed. If, however, Bell has in fact dedicated network capacity to Mobile TV, then it has, at its sole discretion, assigned preferential use of Bell Mobility's shared telecommunications facility to its own broadcasting undertaking without having to demonstrate that this has not contributed to increased congestion or otherwise negatively affected the experience of users and providers of services that are delivered and accessed over the Internet or otherwise using that same shared facility. In effect, Bell is reallocating the use of a scarce, regulated public resource exclusively for its own license-exempt broadcasting service. As in the case of delivery via the Internet, this preferential treatment of network capacity is wholly unjustified by Bell's submission.
- 62. Bell's comparison of its Mobile TV service to wireline operations also falls short on the matter of regulatory status. In wireline operations, a carrier's jointly owned BDU and video-on-demand services not only have dedicated capacity and access arrangements; they are also subject to detailed regulatory requirements. Bell's argument, therefore, suggests that its exempt and unregulated DMBU service (which nonetheless benefits from its relation to Bell's licensed BDUs), should be allowed a level of preferential treatment by its jointly owned carrier that the CRTC has not granted to licensed or otherwise regulated broadcasting services. Again, Bell makes this argument with no justification other than its claim that the ITMP framework does not apply to DMBUs.

#### FAIR TREATMENT IS IN THE PUBLIC INTEREST

63. Bell has stated that in order to justify a claim of undue preference or unjust discrimination, a "substantial lessening of competition" would have to be demonstrated. According to my understanding of subsection 27(4) of the

<sup>&</sup>lt;sup>16</sup> ibid, paragraph 59.

<sup>&</sup>lt;sup>17</sup> Bell answer of January 9, 2014, Table 1.

Telecommunications Act, upon receipt of a credible complaint of prima facie preference and/or discrimination, the onus shifts to the respondent, who is required to demonstrate that the preference is not undue or the discrimination is not unjust. Rather than attempt to justify the preference Bell's comments in this proceeding have instead sought to avoid the issue by appeal to issues of legislative jurisdiction.

- 64. Bell does make the bald statement that "even if Bell Mobile TV was a telecommunications service and not a broadcasting service, it still would not constitute unjust discrimination." This assertion, however, is not supported by evidence. Bell points to Rogers' and Vidéotron's similar services, in support of the proposition that Mobile TV services are prevalent in the industry. Prevalence, in my view, is set by a low standard when only 3 carriers have been shown to give themselves a similar preference. It is interesting to note that, of the Canadian carriers who offer wireless services, only those who have financial interests in broadcast content have engaged in preferential practices related to Mobile TV services. In any case, Vidéotron and Rogers have subsequently been included as respondents in this proceeding as a result of several compelling applications brought forward by the Public Interest Advocacy Centre (PIAC).
- 65. Bell has provided some information regarding subscriber growth at Netflix and Youtube. No conclusions can be drawn, however, from that information. These services are not specific to mobile networks, and the information presented contains no data specific to the wireless market. In order to be informative, such information would have to consider the performance of competing OTT providers in the relevant market (mobile wireless data services) and in the absence of special treatment for Bell's service. In my view, were Bell (and Rogers and Vidéotron) to treat all data services on their network fairly by extending the benefits of capacious network enhancements to all users, it is likely that consumers would increase usage of not only competitive OTT services but also other activities available on the mobile Internet as well. As it stands, these companies have chosen instead to reap the benefits exclusively by preferring their own services.
- 66. Additionally, by limiting consideration to competitive effects, Bell ignores the Commission's longstanding approach to examining claims of undue preference in light of the public interest including the interest not just of incumbents and competitors, but of Canadians in their role as consumers, creators, and citizens as well.<sup>20</sup>

<sup>&</sup>lt;sup>18</sup> ibid, paragraph 37.

<sup>&</sup>lt;sup>19</sup> ibid, paragraph 38-40.

<sup>&</sup>lt;sup>20</sup> As noted in Klass application of November 20, 2013, paragraph 21.

- 67. The Commission has historically made determinations regarding claims of undue preference or unjust discrimination in consideration of the public interest.<sup>21</sup> In the case of the current proceeding, this approach is consistent with the policy objectives enumerated in section 7 of the *Telecommunications Act*, most notably:
  - 7(b) to render reliable and affordable telecommunications services of high quality in all regions of Canada;
  - 7(c) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications;
  - 7(f) to foster increased reliance on market forces for the provision of telecommunication services and to ensure that regulation, where required, is efficient and effective; and
  - 7(h) to respond to the economic and social requirements of users of telecommunications services;
- 68. Briefly, charging many times more for delivery of Internet-originated services than substantially similar delivery of jointly-owned broadcast services does not render telecommunications services affordable. The possibility of increased congestion threatens the reliability and quality of telecommunications services. By conferring advantages upon themselves that are not available to competitors, Bell, Rogers, and Vidéotron distort market forces, constrain Canadians' use of the Internet and thus threaten the competitiveness of Canadian telecommunications. Last, and of the utmost importance, these practices stultify the social and economic demands of users.
- 69. In the ITMP framework, the Commission noted that "the outcome of this proceeding must be the establishment of an appropriate balance between society's interest in innovation in computer communications and its equally legitimate concern regarding the rights of carriers to manage the traffic thus generated."<sup>22</sup> This sentiment is echoed in the *Broadcasting Act*, which states that

"The Canadian broadcasting system should be regulated and supervised in a flexible manner that [...] does not inhibit the development of information

<sup>&</sup>lt;sup>21</sup> PIAC comments to TNC CRTC 2013-685, "Wholesale mobile wireless roaming in Canada - unjust discrimination/undue preference," paragraph E7, 29 January, 2014. See also: Wind comments to the same, paragraph 40. See also: Klass, Benjamin, "Up for a Challenge," <a href="http://benklass.wordpress.com/2014/01/30/up-for-a-challenge/">http://benklass.wordpress.com/2014/01/30/up-for-a-challenge/</a>

<sup>&</sup>lt;sup>22</sup> TRP CRTC 2009-657, paragraph 9.

- technologies and their application or the delivery of resultant services to Canadians;"<sup>23</sup>
- 70. Exempting certain broadcast services from data caps causes discrimination between two classes of customers those who subscribe to the Mobile TV service, and those who do not (note that the former always also subscribe to Canadian carrier services, but never vice versa). The class of users who subscribe to the Mobile TV service are given an economic incentive to act as heavy users by virtue of the fact that they enjoy access to network facilities at significantly discounted rates compared to users who make use of the same facilities for different purposes. These discounts are applied to access which is specific to Mobile TV, and by extension a preference is conferred upon Bell vis-à-vis its broadcast competitors. In an ironic twist of fate, Bell is today encouraging its own customers to act like "bandwidth hogs" but only so long as they line up at Bell's own Mobile TV trough.
- 71. The foregoing is true regardless of whether the fee for Mobile TV is construed strictly as an ITMP or not. Further, an exemption from data caps that is reserved for Mobile TV flies in the face of the principle that data caps "match consumer usage with willingness to pay, thus putting users in control and allowing market forces to work."<sup>24</sup> How can market forces work when Bell gives its own service an advantage unavailable to any competitor? If network investment has obviated the need for an ITMP on one service, has it not done the same for other services which use the same network?
- 72. Consider the following comparison. A mobile subscriber currently has two options for watching 10 hours of CBC programming on their tablet using a mobile network during a given month: they can a.) use the Mobile TV service at Bell's price of either \$0 or \$5, or b.) use one of several CBC apps with their data plan at Bell's price of \$40. Bell states that in the former case it acts solely as a broadcaster, whereas in the latter it acts solely as a Canadian carrier. Regardless of classification, however, the services are delivered under substantially similar circumstances (i.e. a broadcasting service is delivered to the customer that makes use of shared capacity of the same telecommunications facilities). Both services incur similar network costs and contribute the possibility of network congestion in proportion to use.
- 73. In the latter case, delivery of CBC content is a telecommunications service provided by Bell Mobility subject to the ITMP framework.

<sup>23</sup> Broadcasting Act, Part II, section 5(2)(f)

<sup>&</sup>lt;sup>24</sup> ibid.

- 74. In the case of Mobile TV, Bell states that "the \$5 monthly charge for up to 10 hours of Bell Mobile TV is not an ITMP."25 The fact that pricing is sensitive to usage demonstrates that there is a data cap associated with the Mobile TV service, whether it is classified as an economic ITMP or not. Preferential pricing of the Mobile TV service encourages users to consume broadcasting content (and thus shared telecommunication facility resources), while the discriminatory pricing of economic ITMPs discourages users from consuming similar Internet-originated broadcasting content, including publicly funded content provided by the CBC, the National Film Board, and other independent Canadian creators, etc, delivered by Bell using the same wireless telecommunications facility and subject to the same or similar capacity constraints. Services that make use of shared network capacity must be treated equally with regard to the application of data caps; to do otherwise would be to unfairly privilege Bell's service at the expense of Internet users. Canadians should have the ability to choose the services they access; we should not have to depend on network owners' permission to use our devices as we see fit.
- 75. Indeed, in this context, Bell's Mobile TV, as delivered, is a "walled garden" in which Canadians can access the online services of the CBC and certain other broadcasters more cheaply than they can access those same services directly via the open Internet. Such price discrimination raises questions of preference and/or discrimination in light of the fact that customers' use of the Mobile TV service utilizes a shared telecommunications facility. Use of shared capacity by various services contributes to network costs and the potential for network congestion. Bell should be prohibited from giving itself this undue advantage.
- 76. Aside from passing mention, financial information regarding Mobile TV is absent from BCE's securities reporting. There is no publicly available information regarding the costs and revenues associated with content acquisition, network investment necessary for delivery, and administrative and incidental costs. That Bell charges only \$5 (some of which is used to pay for rights clearances), or in some instances \$0 (when bundled as a "bonus add-on") for a service which requires significant network resources raises the question of how the necessary costs are recovered. If the rates for Mobile TV appear to be non-compensatory, then it may be the case that the Mobile TV service is being cross-subsidized by either ad revenue from affiliated programmers or from revenue generated by other telecommunications services, or both. Any assessment of such information in this context must take into account not just the marginal cost of carrying data, but must factor in the fixed costs associated with providing sufficient network capacity for concurrent users of network capacity.

<sup>25</sup> Bell answer, para 37.

- 77. Any or all of the following would run counter to the public interest:
  - allowing affiliated programmers or users of Bell's other carrier services to subsidize Mobile TV;
  - allowing Mobile TV, via disproportionate data limits, to degrade other services by contributing to network congestion;
  - or imposing data caps (on Internet access services) that do not contribute to the management of congestion, remove control from users, and cause market forces to malfunction.

#### CONCLUSION

- 78. Under close examination, Bell's argument that the ITMP framework does not apply to the delivery of Mobile TV content is shown to be an attempt to take advantage of the New Media Exemption Order to give undue preference to itself, and discriminate unfairly against other DMBUs to commercial advantage. As a vertically integrated carrier/ISP/BDU/broadcaster, Bell has incentives to attempt to leverage its control of local wireless network infrastructure to gain commercial advantage for its own DMBU over other DMBUs and services delivered via the Internet. This echoes the concernps expressed by the Commission in its 2009 Review of Broadcasting in New Media (BRP 2009-329) referenced above.
- 79. Moreover, accepting this argument would run counter to the regulatory policy in section 5 of the Broadcasting Act that:
  - (2) The Canadian broadcasting system should be regulated and supervised in a flexible manner that
  - (f) does not inhibit the development of information technologies and their application or the delivery of resultant services to Canadians;".
- 80. Bell argues that "Mobile TV is the kind of innovative, consumer-oriented broadcast service that the Commission intended to encourage when it first created licence-exempt new media broadcasting undertakings in 1999." However, its own comparison shows that the service is a wireless digital extension of its existing BDU services. While there may be some innovation in this, it pales in comparison to the level of innovation demonstrated by many of the wide range of DMBU, OTT and other online services that Canadians can access via the Internet. The CBC's innovative Sochi 2014 app available to all Canadians, and the envy of international audiences<sup>26</sup> is a prime example of the type of innovative DBMU service that is being offered from providers at the edge of the network, without permission from network owners.

<sup>&</sup>lt;sup>26</sup> http://www.canada.com/olympics/news/cbc-changes-way-canadians-watch-olympics

- 81. As for "consumer friendly", to the extent that Mobile TV is delivered in a manner that diminishes consumers' ability to fully enjoy more innovative online services, by constraining access to those services and favouring access to Bell's own service, Mobile TV also falls short in that regard. The Commission should not allow Bell to take advantage of its control of network infrastructure to impede Canadians' access to the kinds of innovative, consumer-oriented services that the Commission intended to encourage.
- 82. Finally, Bell argues that: "In order to justify such a claim [ of undue preference and/or unjust discrimination ] one would have to demonstrate that Bell mobility's practice results in a substantial lessening of competition". This concept stems from competition law in relation to matters of market dominance and/or predatory pricing. The matter at hand, however, goes to core principles of common carriage and the public interest. In this instance, the facilities-based common carrier component of a vertically-integrated carrier/ISP/BDU/broadcaster is conferring a preference on its own downstream content service which competes with other such services that rely on the carrier's network to reach end users. In this context, any preference conferred on the carrier's own service must be considered "undue" by definition because it is a competitive advantage unavailable to any competitor. Accordingly, such a preference constitutes anti-competitive behaviour. Further, the current arrangement does not only discriminate against competitors, but against individual Canadians as well.
- 83. It has been said that "Bell's objective, our duty, is to ensure that we are able to balance the demand of all our customers in order to deliver the best possible Internet experience for everyone." Today, that balance has been tilted. WSPs have invested in network capacity, but are reserving those improvements for themselves, and are reaping the benefit to the exclusion of competitors and Canadians. All Canadians deserve to harness the social and economic advantages that come with mobile Internet access. In order to make this possible, our Canadian carriers must treat all services and users fairly. They have the means to do so. Will they fulfil their duty to the public? I earnestly hope so.

Thank you for considering my comments.

Sincerely,

Benjamin Klass

#### \*\*\*END OF DOCUMENT\*\*\*

<sup>&</sup>lt;sup>27</sup> Bibic, Mirko. "Internet usage debate, Part 2: \$8B to keep pace," FP Comment, Feb 7, 2011. <a href="http://opinion.financialpost.com/2011/02/07/internet-usage-debate-8b-to-keep-pace/">http://opinion.financialpost.com/2011/02/07/internet-usage-debate-8b-to-keep-pace/</a>

CC:

Rogers (rci.regulatory@rci.rogers.com)

Vaxination Informatique (jfmezei@vaxination.ca)

Consumers' Association of Canada, the Council of Senior Citizens'

Organization of British Columbia, and the Public Advocacy Centre

(gwhite@piac.ca and jfleger@piac.ca)

Bell (bell.regulatory@bell.ca)

Bell Aliant (regulatory@bell.aliant.ca)

TELUS (regulatory.affairs@telus.com)

SaskTel (document.control@sasktel.com)

MTS Allstream (iworkstation@mtsallstream.com)

Eastlink (regulatory.matters@corp.eastlink.ca)

Tbaytel (rob.olenick@tbaytel.com)

Independent Telephone Providers Association (jonathan.holmes@itpa.ca)

Videotron (dennis.beland@quebecor.com)

Globalive Wireless Management Corp. (eantecol@windmobile.ca)

Public Mobile Inc. (Jamie.greenberg@publicmobile.ca)

Data & Audio Visual Enterprises Wireless Inc. (gary.wong@mobilicity.ca)

Canadian Network Operators Consortium (regulatory@cnoc.ca)

Canadian Cable Systems Alliance (cedwards@ccsa.cable.ca)

Cogeco Cable (telecom.regulatory@cogeco.com)

Shaw Cable (Regulatory@sjrb.ca)

Fenwick McKelvey, Concordia University

(fenwick.mckelvey@concordia.ca)

Steven James May, Ryerson University (steven.may@ryerson.ca)

Samuelson-Glushko Canadian Internet Policy & Public Interest Clinic (tisrael@cippic.ca

and cippic@uottawa.ca)

Chris Seidl (chris.seidl@crtc.gc.ca)

Nora Froese, CRTC, nora.froese@crtc.gc.ca Julie Boisvert, CRTC, julie.boisvert@crtc.gc.ca