Petition
to the Governor In Council

to rescind:

Telecom Decision CRTC 2010-802
Usage-based billing
for Gateway Access Service

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Executive Summary

1. Vaxination Informatique files this Petition to the Governor in Council under section 12 (1) of the Telecommunications Act. Vaxination is a small business which has participated in a number of CRTC proceedings involving Gateway Access Service (GAS) since March 2008, including those leading to Telecom Decision 2010-802. It has participated because Bell Canada's proposed changes to GAS negatively affect Vaxination's ability to choose an ISP that can provide it with the services it requires and which differ from those offered by incumbent carriers.

2. Telecom Decisions 2010-802 and 2011-44 are the culmination of a long process resulting in the Commission effectively regulating retail ISPs by imposing Bell Canada's retail UBB scheme. Unless rescinded, this will set precedents which will taint many upcoming decisions.

3. Telecom Regulatory Policy 2010-632 confirmed that, at this time, the GAS service is still required to ensure there is competition in the retail ISP business and prevent formation of a duopoly. However, with the UBB tariffs, the Commission has moved in the opposite direction by granting incumbents full power to impose unified UBB rates on the market. The imposition of the same UBB scheme on all ISPs cannot be considered competitively neutral as it removes their freedom to innovate, differentiate and choose the billing paradigm best suited for their customers.

4. The Commission has also failed to ensure that its regulation was efficient and proportionate by allowing its regulatory reach to extend beyond the well defined nature of the GAS service. This will not only result in excessive regulation, but also a heavy regulatory burden because of the dynamic and complex retail rates used by incumbents.

5. Since GAS is neither an ISP nor a retail service, the imposition of one or more retail ITMPs such as UBB is well outside the regulatory scope of the service and must be rejected.

6. A regulator must ensure each retail ISP is free to design its own ITMPs and let competitive market forces reward the better ISPs. The Commission's repeated approval of the UBB tariff will result in a large interference of competitive market forces since the imposition of incumbent dictated UBB rates onto all retail ISPs will not only remove ISP's abilities to differentiate themselves and give the market choices, but also increase the incumbents market power which is already uncomfortably close to duopoly status.

7. The best way to achieve the goals set in the Policy Direction and section 7 of the Telecommunications Act is to ensure there is simple but strong and narrowly focused regulation that ensures that the GAS service remains a neutral last mile access and aggregation data communication service without any superfluous regulation, restriction or tampering of packets. The pricing structure of GAS was fine before 2008 and the various existing components can be modulated if necessary.

8. Furthermore, to ensure compliance with the Telecommunications Act, only cost based pricing should be tolerated for regulated tariffs. This provide for more stable and predictable pricing allowing service providers to design long term business plans, while guaranteeing acceptable profit levels and low risk to incumbents.

9. Therefore, The Commission must be told to rescind all decisions related to the TN7181 tariff an ensure that GAS and TPIA tariffs be reviewed to ensure they contain only aspects related to the nature of that service.

10. To ensure that regulation uses measures which are proportionate to their purpose and foster competition instead of stifling it, a proper definition of the GAS[1] service is needed to define the bounds that any regulation must respect.

11. GAS is **not** a while label resale service nor do ISPs "rent portions of Bell's network" as is often heard in the media. GAS is a simple commercial data communications service where customers (the retail ISPs) pay monthly fees for data communication service between their premises and those of their retail customers.

12. Here are some key points on the GAS service:

    a. **GAS has no retail equivalent**. The GAS service is but one of many inputs needed to build a retail ISP service. It can be used to build many other types of services as well (lan extensions, MLPPP, DECnet etc). Its roots as a Bell Nexxia service demonstrate it was not meant to be a retail offering. It is impossible for an individual to purchase GAS service.

    b. **GAS is not an ISP service**. It is similar in concept to what lottery companies purchase to link all lottery terminals to their data centre. GAS provides none of the services associated with a retail ISP such as IP connectivity, IP address, DNS, email, web, etc. Those are the sole responsibility of the retail ISP.

    c. **GAS provides no access to the Internet**. It carries data between retail customers and their ISP's facilities using a protocol called PPPoE[2]. Each ISP independently connects to the Internet from their own facilities without using Bell Canada networks.

    d. **GAS service is one of many inputs used by ISPs to create a retail ISP service**. Just as an engine manufacturer cannot dictate the colour of cars built using its engines, Bell Canada must not be allowed to dictate retail features of the service offered by ISPs

    e. **GAS is not a flat rate service.** The GAS service is built using three required components:
       - GAS per port/line fee. Covers the link between the end user's modem and the BAS router
       - AHSSPI[3] links to aggregate traffic from all BAS[4] routers to a Bell Facility near the ISP
       - EAS (Ethernet Access Service) to link the ISP's facilities to the Bell wire centre.

    f. While GAS has a fixed per access fee, both AHSSPI and EAS are capacity-based. The fact that Bell Canada provides it as "best effort" does not change the fact that it is capacity-based. Purchase of insufficient capacity results in congestion happening at the ISPs premises, not on the Bell infrastructure. Increased DSL speeds will generate higher loads and ISPs have already begun to plan for additional AHSSPI/EAS links to handle growth in traffic due to upcoming higher DSL speeds.

1 GAS: Gateway Access Service

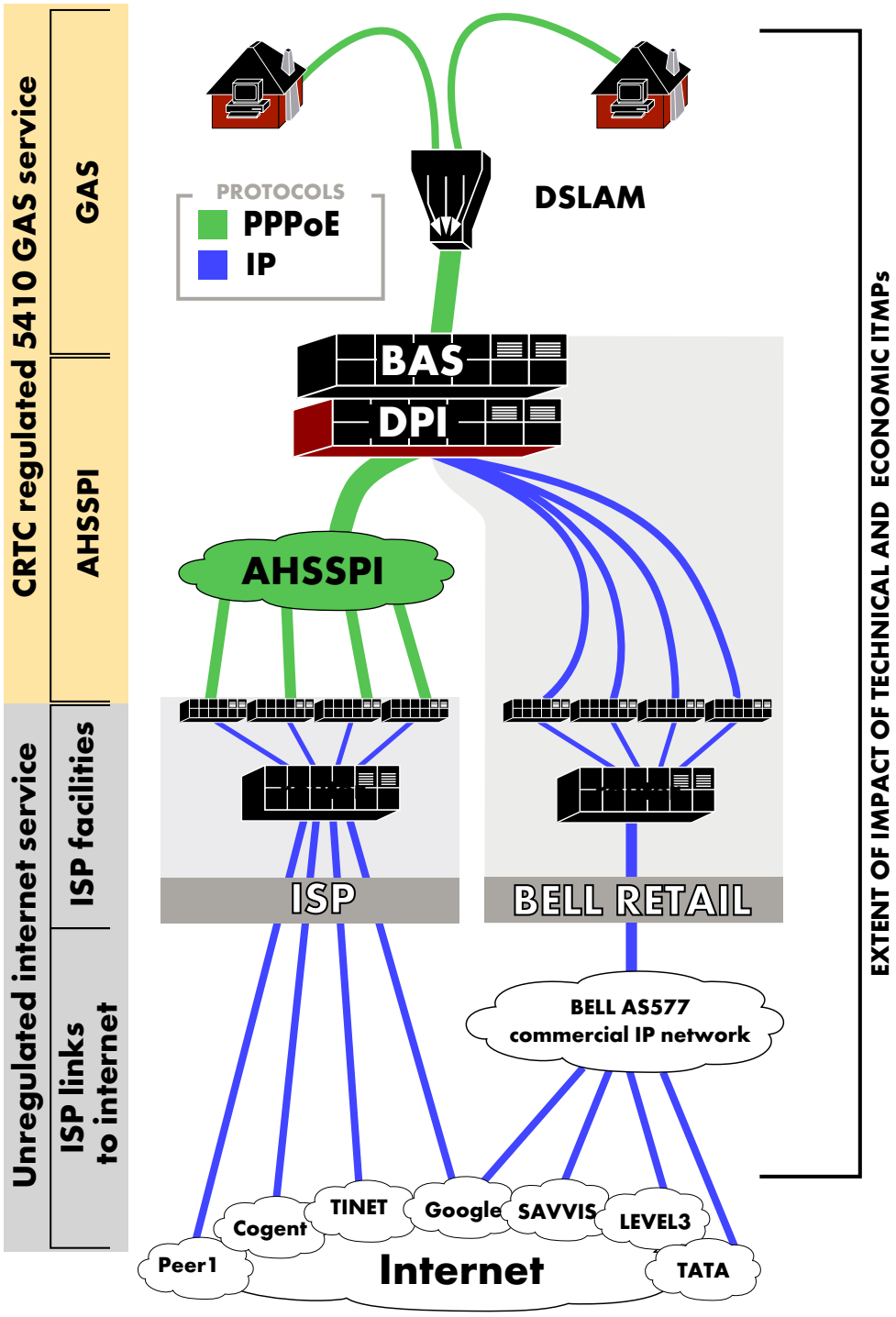
2 PPPoE: Point to Point Protocol over Ethernet. A layer 2 tunnelling protocol. The internet operates at layer 3.

3 AHSSPI: Aggregated High Speed Service Provider Interface (see next page for visual explanation)

4 BAS: Broadband Access Server, also known as BRAS (R: regional)

13. The graphic below illustrates the general architecture of an ISP's retail service. GAS provides only the PPPoE links (in green). The ITMP measures (Throttling and UBB) designed for the Bell Canada's retail ISP business have a reach that extends beyond the boundaries of GAS/AHSSPI service.

14. Bell Canada's retail internet service is asymmetrical compared to GAS because the retail ISP portion reaches all the way to the BAS. For Bell Canada retail customers, the BAS is the first visible Internet router.



15. For the GAS service, the BAS acts as a switch to deliver PPPoE packets to the ISP specified during PPPoE session establishment. It is transparent to end users who see their ISP's router as the first visible Internet router.

16. The BAS is the device which counts traffic used for Bell Canada's UBB scheme.

17. The DPI (Deep Packet Inspection) is what performs the throttling by purposefully dropping packets. Its placement has significant impacts in accuracy of usage information.

18. The AHSSPI provides aggregation from roughly 250 BAS routers in Bell's territory and delivers data to a Bell facility in the ISP's city. An EAS (Ethernet Access Service) link is used to link between the Bell and ISP facilities in that city. Both are capacity-based and thus not fixed rate.

Behavioural based billing

19. In the 2010-803 proceeding, the cable carriers and Bell Canada both agreed that the implementation of what they refer to as "UBB" was not cost-based, but rather an ITMP designed to curb the growth of usage, and that the punitive pricing levels proposed were meant to alter the behaviour of consumers.

20. Paragraph 13 of the November 29th submission[5] by the Cable carriers in the 2010-803 consultation sums up the incumbent's definition of UBB really well:

> *Given that the fundamental purpose of UBB charges is to influence the behaviour of end-users, then it goes without saying that the application of different UBB charges to different groups of end-users (wholesale versus retail) would result in different behaviours.*

21. UBB is more about limiting growth of internet usage than about getting users to pay for what they use. It should be called **Behaviour Based Billing.**

22. The incumbents are correct when they state that different UBB pricing will yield different behavioural impact on usage. They are however wrong when they insist that all ISPs must apply symmetrical level of ITMPs. The required ITMP levels is dependent on target contention ratios which ISPs control through the purchase of different amounts of capacity. Therefore, different ISPs need different ITMPs because they do not all purchase the same amount of capacity per customer. And different types of customers need different types of ITMPs. It is threrefore wrong to impose symmetrical ITMPs on all all ISPs.

23. The Commission states that it does regulate the incumbent's retail ISP operations, yet, it approves a tariff which regulates independent retail ISP pricing and features.

24. It should be noted that Bell Canada's throttling policy applies between 16:30 and 02:00 every day of the year across all of its network whether there is congestion or not and cripples certain applications down to speeds which makes those applications unusable 9.5 hours each day. Such throttling should be classified as a behavioural ITMP as it conditions users to not use certain applications for a greater part of the day. This is very different from a technical ITMP which handles sporadic and localised congestion by dropping just enough of the lower priority packets to deal with the temporary event.

25. Having 2 behavioural ITMPs causes some conflicts (double counting of traffic for instance) and should have prompted the regulator to ponder the real intents of the incumbent.

5 Nov 29th Cable submission: http://www.crtc.gc.ca/public/partvii/2010/8661/c12_201015975/1467242.PDF

Non-linear nature of UBB

26. Bell's Canada UBB is convoluted, complex and non linear in nature. It prevents independent ISPs from presenting simple rates to their customers. The per gigabyte of usage fee as approved by 2010-802 is as follows:

27.

DECISION:	2010-255	2010-802	2011-44
DISCOUNT:	25%	0%	15%
• 0 to 60gigs:	$0.00	$0.00	$0.00
• 60 to 80gigs:	$1.125	$1.50	$1.275
• cost at 80 gigs:	$22.50	$30.00	$25.50
• 80 to 300gigs:	$0.00	$0.00	$0.00
• 300 and above:	$0.75	$1.00[6]	$0.85

28. Based on 2010-802 numbers, a user who consumes 80 gigabytes pays $30.00 of UBB fees. A user who consumes 300 gigabytes pays $30.00. Since there is no additional cost between 80 gigs and 300gigs, there is no incentive for users to moderate their usage above 80 gigs. This defeats the stated purpose of moderating the heavy downloaders.

29. With the pre-paid blocks, it gets worse. A user who buys 3 blocks of 40 gigs ($15.00) ends up paying $45 in UBB fees if he consumes 300 gigabytes. So he is in fact punished for purchasing pre-paid blocks.

30. A proper "user pays" model would see a linear usage curve with constant rates, perhaps decreasing with higher levels due to a "volume discount". What Bell Canada has introduced is not consistent with such a model.

31. In the TN7293/TN7290 proposed tariffs, Bell Canada has used the precedent set by 2010-802 to impose its full retail rates onto GAS ISP's end users. This creates an even more complex tariff which has different UBB pricing and limits for Ontario and Québec.

6 The above 300 usage fees are approved, and Bell has provided notice they will begin March 1 2011.

The proper definition of incumbent's UBB (cont)

Network Management versus Market Management

32. Incumbents have repeatedly stressed that UBB is merely an ITMP: Internet Traffic Management Practice. They claim this is a network congestion management, not related to costs .

33. Logic dictates that the punitive level of a UBB scheme should be proportional to the odds of a user contributing to congestion problems.

34. The incumbent's UBB rates implement the exact opposite: more punitive pricing and limits on users with the slower speeds which are far less likely to create congestion. The 640kbs service is to have a microscopic 2gigabytes limit and very high $2.50/gig charge while the 5mbps service, far more likely to cause congestion due to higher speeds has a 60 gig limit with $1.50 per gig fee thereafter.

35. Paragraph 3 of Bell Canada's introduction letter to the TN7293[7] filed on December 14th 2010 explains well the philosophy behind the counter-intuitive congestion management pricing.

> *The UBB parameters that were approved in the aforementioned Decisions were based on the Companies' 13 March 2009 UBB proposal, filed in Bell Aliant Tariff Notice 242 and Bell Canada Tariff Notice 7181. However, since making that initial UBB proposal,* ***the Companies have adjusted and will be further adjusting the parameters of their retail UBB program in consideration of market conditions.***

36. Therefore, the pricing is not set according to network congestion parameters but rather by marketing parameters. The near duopoly situation results in each of cable/telco incumbents following each other like a dog trying to catch its tail.

37. Incumbents pitch their UBB as a network management practice to control congestion requiring exact pricing to ensure proportionate application of the ITMP. Then, they admit their pricing is set by market conditions and are clearly not related to any network management parameters. How can the Commission have the confidence of Canadians when it approves such schemes ?

38. Since incumbents exert almost total control over the market, their claim that they are using market pricing needs to be rejected since incumbents set the market prices. By accepting "market condition" pricing, the Commission is granting incumbents carte-blanche to set any rate they want without any justification.

39. The "further adjusting the parameters of their retail UBB program" aspect is worrisome because it allows Bell Canada to dynamically change its retail rates at a faster pace than the CRTC is able to approve, putting the regulated retail ISPs in a constant competitive disadvantage. Another example of why allowing retail aspects in GAS/TPIA regulation is not competitively neutral.

7 TN7293 to replace TN7181 approved by 2010-802: http://www.crtc.gc.ca/8740/eng/2010/b2_7293.htm

The proper definition of incumbent's UBB (cont)

Which billing paradigm to choose ?

40. During the 1980s, there were 2 competing packet based networks: X.25 and the nascent Internet. Despite being more widely deployed internationally, X.25 was eclipsed by the Internmet is part due to its capacity based pricing paradigm which fostered new uses while X.25 was set on usage based billing at rates that would not make the transmission of large files economical.

41. While the commercial nature of the internet has changed since its non-profit early days, the internet remains a capacity-based network at its core. Transit links purchased by ISPs to connect to the internet are priced by capacity not usage. The nature of capacity-based networks fosters increased use and makes it possible to develop new applications that are more data intensive with the knowledge that end users will not have problems adopting such new applications.

42. The conversion to a UBB System (even if it were a fairly priced one) will greatly reduce incentive to adopt new uses for the internet in Canada, while other nations will progress at a more rapid pace.

43. By curbing end user usage, a punitive UBB regime allows incumbents to reduce the pace of capacity investments. While the Commission cannot (and should not) regulate such policies, it must not condone them by making them part of regulation imposed on others.

44. An unregulated ISP can experiment with any type of retail billing paradigm. Market forces will dictate whether this is desirable or not. In the later case, the ISP will either disappear or change its billing paradigm.

45. **However, when the regulator dictates that all ISPs should adopt the same billing paradigm, this prevents market forces from choosing what type of paradigm is best suited for the market**. This is a clear violation of Telecom Act section 7(f) (As well as Policy Direction (i):

> *(f) to foster increased reliance on market forces for the provision of telecommunications services and to ensure that regulation, where required, is efficient and effective;*
>
> *(i) rely on market forces to the maximum extent feasible as the means of achieving the telecommunications policy objectives, and*

46. As the underlying infrastructure for GAS/AHSSPI is based on capacity metrics/equipment, it is more efficient for the regulator to correlate capacity based pricing to capacity based Phase II costing.

47. However, when the underlying infrastructure is capacity-based, but the incumbent wishes to charge usage-based rates, it becomes far more difficult for the regulator to ensure that the rates are fair and reasonable (27-1 of the Act). In the case of 2010-802, the Commission did not even attempt this exercise since the incumbents used the ITMP escape clause as well as "market based" excuse to avoid any logical evaluation of the UBB rates.

48. Unregulated retail operations need the freedom to design any pricing structure, allowing the market to choose which is best. However, when regulation is required (as is the case for the GAS service), it should be based on the best suited paradigm for the service being provided, and this means capacity based for GAS and TPIA.

Should a duopoly arbitrarily set competitor's retail rates?

49. In paragraph 55 of the 2010-632[8] Telecom Regulatory Policy " Wholesale high-speed access services proceeding", the Commission states:

> *The Commission concludes that, without a speed-matching requirement for wireline aggregated ADSL access and TPIA services, it is likely that competition in retail Internet service markets would be unduly impaired. In the Commission's view, an ILEC and cable carrier duopoly would likely occur in the retail residential Internet service market, and competition might be reduced substantially in small-to-medium-sized retail business Internet service markets. The Commission considers that, in such circumstances, retail Internet service competition would not continue to be sufficient to protect consumers' interests.*

50. In paragraph 68 of the 2010-255[9] decision on TN7181, the Commission states

> *the Commission considers that the Bell companies' proposed **market-based pricing approach is appropriate** for the UBB component of their proposal.*

51. In paragraph 55 of 2010-632, the Commission confirms that effective competition from GAS and TPIA ISPs is required to protect consumers' interests against a natural duopoly formed by cable/telco incumbents.

52. Yet, in the 2010-255 decision, the Commission failed to note that the pricing the incumbents claim is "market based" is, in reality "incumbent controlled". By allowing incumbents with near total control of the market to set regulated rates, the Commission has gone against the goals of enhancing the competitive nature of the telecommunications environment by increasing the pricing power of the incumbents.

53. In blindly accepting the incumbent's pricing just because it is "market based", and in allowing the use of the ITMP excuse to escape rate scrutiny and debate, the Commission has failed in its duty to ensure that "**every** rate charged by a Canadian carrier for a telecommunications service shall be just and reasonable". (clause 27(1) of the Telecommunications Act).

54. **Only one word can best describe the Commission's claim that the imposition of the same retail rate structure onto all ISPs is competitively neutral: ludicrous.**

55. The Commission's statement in paragraph 68 goes against the very spirit of the Policy Direction document by agreeing to impose an incumbent's rates on the market, which prevents the market forces from choosing what rate structure is best.

56. Furthermore, the 2010-802 decision grants Bell Canada the right to offer promotions and confirms that its retail ISP business is to remain unregulated, while effectively regulating competing retail ISPs. In doing so, the Commission also condemns competitive ISPs to an eternal regulatory battle to have tariffs updated, while Bell Canada has total freedom to change its own retail rates and UBB structure anytime it wants. How the Commission can find this to be competitively neutral is beyond reason.

8 Wholesale high-speed access proceeding: http://www.crtc.gc.ca/eng/archive/2010/2010-632.htm

9 TN7181 (UBB) Final decision http://www.crtc.gc.ca/eng/archive/2010/2010-255.htm

Competition versus white label resale model

57. GAS/AHSSPI started off as true commercial bulk service offered by Bell Nexxia in the late 1990s. It became regulated by the CRTC in 2005. Except for modem speeds, it was devoid of retail restrictions and ISPs were free to build whatever service they wanted. Bell Nexxia provided bulk data transfers between end points up to the purchased capacity. This provided a simple and stable regulatory environment which gave ISPs a tool with which to build dynamic and competitive services. Bell Nexxia did not have competing retail services. In fact, Nexxia did not have any retail services.

58. Since 2008 with the imposition of retail throttling, the GAS service has been in a constant regulatory overload. In 2008, Bell Canada was proclaiming to the media that GAS was nothing more than a white label resale of its Sympatico service (as it was then called).

59. Since then, the Commission's decisions on GAS have used "regulatory symmetry" arguments to justify the imposition of retail restrictions on competitors.

60. Instead of protecting the competitive model of the GAS service, the Commission has agreed to Bell Canada's requests to move to towards a while label resale model where Bell Canada has control over more and more of the retail features offered by competitors.

61. The government must prevent the Commission from using creative interpretation of the Policy Direction and Telecommunications Act to blatantly reduce the level of competition to please incumbents. A "light regulatory touch" philosophy is meant to foster competition instead of re-instating an incumbent's monopoly by saying "yes" to all its requests.

62. The 2010-632 decision on wholesale high speed access services made it quite clear that forbearance wasn't yet possible for the last mile access services. And while this may be an eventual goal, until this is achievable, the Commission must be told to put competition ahead of forbearance because without competition, forbearance isn't possible.

63. **In order to repair the damage caused to the competitive environment in the last few years, the government should order a review of the many decisions which have gone beyond the nature of the GAS service,** notably the imposition of throttling (2008-108) and the UBB decisions to ensure that any regulation of the GAS and TPIA services are efficient and proportionate to their purpose and that they foster competition instead of interfering with it.

64. Since the GAS service has no retail components, any regulation which attempts to regulate retail aspects of ISP services should be considered disproportionate and rejected.

65. If the Commission wants to regulate ISPs into white label resellers, then the "symmetry" argument should compel the Commission to include the incumbent's own retail ISP operations in the same regulations. If the incumbents do not want the Commission to regulate their own retail ISP business, then they have no right to demand that the Commission regulate the retail ISP business of their competitors.

66. Forcing competing ISPs to become white label resellers of the incumbent's service is an explicit declaration that retail ISP business is regulated by the CRTC.

Regulatory Symmetry

67. There exists only one reference to regulatory symmetry. It can be found in Policy Direction document:

> *b) the Commission, when relying on regulation, should use measures that satisfy the following criteria, namely, those that:*
> *...*
> *(iii) if they are not of an economic nature, to the greatest extent possible, are implemented in a symmetrical and competitively neutral manner, and*

68. In paragraph 39 of the 2010–802 decision, the Commission has interpreted the above as a blind requirement for regulatory symmetry and used it to justify symmetric application of retail features dictated by incumbents on all ISPs. However, the use of "and" in clause (iii) makes it clear that symmetry must not come at the expense of competition.

69. Symmetric imposition of retail features dictated by one incumbent cannot be considered to be competitively neutral. This restricts ISP's abilities to shape their service as they wish and most importantly removes the market's ability to choose between different services, avoiding those with undesirable restrictions.

70. An example of competitively neutral regulatory symmetry would be a requirement on all ISPs to disclose their retail Internet Traffic Management Practices. This does not prevent ISPs from defining their service the way they want and allows different ISPs to have different ITMPs (or none at all).

71. However, imposing identical ITMPs onto all ISPs cannot be considered competitively neutral as it prevents ISPs from differentiating their own services and choosing the type and level of ITMPs best suited for the type of service they wish to offer. This is another reason why any/all decisions which approve the imposition of retail ITMP onto unregulated retail services must be reversed/rejected.

72. Regulatory symmetry is also about costs. To incumbents, UBB charges are a licence to print money since they are not tied to any direct cash outlays. They have the flexibility to change them, offer promotions or waive them to certain customers. For ISPs, UBB represent an unavoidable direct cost requiring real money be sent to the incumbents every month. They have no flexibility in setting rates and are forced to rebill those amounts.

Ability to differentiate is critical

73. In the various proceedings since 2008, Bell Canada has consistently complained that end users of ISPs used "disproportionate" amounts of network capacity. In the 2010-803 proceeding, Bell stated that GAS end users represented 17% of total DSL users, yet generated 31% of the traffic.

74. This statement is best explained with chocolate chip cookies. Competing cookie makers would use different amounts of chocolate chips in their recipes, some use more chips and advertise their product as a premium quality, while others may wish to offer low cost cookies with just one chip per cookie. They can differentiate their products and target different consumers. As long as the bakers pay for the amount of chocolate chips they use, there is absolutely nothing wrong with one buying twice as many chocolate chips as another to make the same number of cookies. Forcing all bakers to use the same number of chocolate chips in their cookies would go against basic competitive principles.

75. In a network environment, the pre-2008 GAS service allowed ISPs the freedom to purchase the amount of capacity required to offer the service they wanted and attract customers with different needs. They could architect their network with different contention ratios to provide different network response times.

76. Because the tariffs were Phase II costed, Bell Canada was ensured a low risk source of profitable revenues.

77. To my knowledge, Bell Canada has only stated that GAS end users consume more data than Bell Canada's retail customers. It has not publicly provided evidence that GAS does not pay for the network resources used. Unless Bell Canada can show, in the public record, that GAS ISPs do not pay for the 31% of traffic they generate, then the regulator should refuse any measure which prevents ISPs from obtaining that 31% of capacity for which they pay.

78. Regulation must not prevent service differentiation and should ensure that customers get the amount of telecommunications capacity they choose purchase to cater to different types of customers. Nothing should prevent an ISP from purchasing more capacity per customer to offer a better service than Bell Canada's retail service.

79. The whole point of having regulated rates is to prevent the incumbent from limiting competitors' abilities to compete.

80. In fact, the 2009-657 and 2008-108 decisions should be varied to remove any reference to wholesale services which do not provide access to the internet. **ITMPs belong to retail ISP operations**. Neither GAS nor TPIA are retail ISP operations.

Choice is important

81. For the retail market to have choices, the service suppliers must also have choices.

82. In the past, ISPs did not widely adopt TPIA based services because of the restrictive UBB scheme and went with DSL services because of the greater flexibility they had to offer the service they wanted to offer. They had a choice and the market of ISPs spoke by moving to DSL.

83. Similarly, individuals had the choice and could choose between restrictive incumbent services or unrestricted independent ISP services. The recent "regulatory symmetry" trend has eliminated those choices by making all services the same. ISPs no longer have a real choice between TPIA and GAS, and individuals cannot escape the incumbents punitive UBB schemes or throttling because it is being imposed on everyone.

84. Such symmetry prevents market forces from working because customers have nowhere to go if they dislike restrictive features of their current ISP. Without choice, there is no competition, and incumbents can then raise prices and lower service limits knowing customer have nowhere to go. This puts Canada in the very duopoly situation which the Commission warned about in its 2010-632 regulatory policy.

85. The 2010-802 decision and the precedents being set by it give incumbents effective control over 100% of the market and allows them to cripple everyone's service without any real competition.

86. 2010-802 is an example of abusive regulatory powers being handed to incumbents who can now control their competitors.

Competition between ISPs fosters competition elsewhere

87. With every speed increase, the Internet's disruptive impact has widened its reach. Underground services such Napster sewed the seeds that would make iTunes the world's largest music store in just 9 years. Once internet speeds higher than 5mbps appeared, legacy television distribution became a target.

88. The internet is a bastion of free enterprise, innovation and competition. Entrepreneurs will find ways to use the internet's efficient distribution to challenge any/all legacy businesses.

89. Pure play Internet Service Providers have not complained about rising internet usage and welcome the challenge of serving customers with increased needs. And because internet transit is a competitive arena, costs are driven down, so ISPs have no problems purchasing extra capacity.

90. However, incumbents are quite different because they have monopoly in last mile and have vested interests in legacy television distribution (even more now that they also own broadcast networks) and know that the internet could do to their TV business what iTunes did to brick and mortar music stores.

91. An Incumbent retail ISP business is in a conflict of interest against its entertainment business. New competitors such as Netflix, Apple TV, Google TV and ZIP.CA in Canada are emerging. When a customer rents a movie from iTunes or Netflix, this is one less pay per view revenue for the BDU (cable/satellite company).

92. ITMPs such as UBB are a means to curb, delay or even prevent the adoption of these new services, protecting incumbent's legacy TV distribution revenues. Incumbents know that once an application has expanded beyond early adopters, it is unstoppable. YouTube is a good example. So the goal is to nip the TV competition in the bud before it is too late. To this end, the incumbents are using their market power to ensure that no ISP gives the market the choice between incumbent's walled garden legacy TV distribution and innovative Internet-based entertainment.

93. From a competition point of view, the solution which supports the Policy Direction is quite simple: give the market the choice. This means preventing one company from imposing retail restrictions such as UBB and behavioural throttling onto another (or worse: all others). This allows some ISPs to hinder certain new applications while other ISPs will welcome their adoption and the market will then decide which is best.

94. **The regulator's job is not to choose which billing paradigm is best and impose it on everyone, its job is to ensure that the market has choices so it can choose which is best.**

95. Competition in the retail ISP business also ensures there are open doors for new applications and Internet-based services and that incumbents cannot prevent the market from adopting services which compete against an incumbent's own. Any measure which hinders Canadians' adoption of new internet application will implicitly hinder the development of applications and services designed for Canadians by Canadians.

96. So while 2010-802 deals with specific features of the GAS data transmission service, it also affects the environment which could foster or hinder competition in many other areas because the internet has become an essential tool to many industries.

Does the government wish to curb the growth of the internet ?

97. The UBB issue is an important one for the long term competitiveness of Canada in an information age. If the government allows incumbents to prevent competitors from offering less restrictive services, Canada will be a nation where all ISP services will be designed to curb the use of the internet and provide dis-incentive to adopt new applications.

98. Furthermore, because UBB allows incumbents to delay/reduce capacity investments, this will allow Canada to further drop in world rankings for internet infrastructure. And UBB has a perverse side effect: it not only generates revenues from UBB fees, but saves money by reducing the need for investments. From a regulatory level, it means that the regulator accepts to impose fees on end-users which will result in reduced costs on incumbents.

99. A true usage based system would be non-punitive in nature. It would be more in a "user pays" paradigm but still have some curbing behavioural effect. One big difference is that being cost based, the incumbents should welcome increase usage because it would mean increased revenues and thus profits, and this would foster investment in additional capacity since the more capacity they have, the more usage they can support and thus the more profits they can generate.

100. However, the UBB rates as presented by incumbents, being punitive in nature, share very little with the true "user pays" paradigm.

Where should the money go ?

101. Why should a government reward incumbents who charge punitive rates in order to curb growth and delay/reduce its capacity investments ? Since they claim that the sole reason for UBB is to act as an ITMP, then the collected money does not need to go to the incumbent, especially since they refuse any cost justification for those rates. Therefore, all UBB revenues should go to a broadband fund that would help develop competitive facilities.

102. Perhaps incumbents would change their rethoric on UBB if they were faced with the prospect of getting the reduced usage from ITMPs but not their revenues.

103. How will the government explain the discriminatory rates it imposes ?

104. With the introduction of TN7293 and TN7290 (matching speeds), Bell Canada wishes the federal regulator to impose its province specific rates on ISPs. For instance, for the 25mbps service, the proposed arbitrary UBB rate would be $1.00/gig in Ontario while in Québec it would be $2.50/gig.

105. An unregulated retail operation can set the rates it wants. But when such rates become federally regulated, the government needs to be able justify/explain them.

106. Considering that UBB rates are not cost based , are purely arbitrary in nature and designed to affect behaviour, how can a regulator use logic to justify imposing different rates for Québec and Ontario, especially when Quebeckers would be asked to be 2.5 times more for per gig charges on a 25mbps services ? Such federally regulated rates could become a rather hot potato if the media starts to portray this as the federal government forcing francophones to pay 2.5 times more than anglophones.

107. Limiting regulated rates to logical cost based philosophy would prevent this problem.

Curbing of use will also curb internet development in Canada

108. Many Internet business models are being developed around advertising and large media files. With behavioural blocks imposed by UBB, many business models will fail in Canada because users will be conditioned to not subscribe to any media heavy services and/or disable advertising on their web browser. And this will make it much harder for Canadians to develop profitable services designed for Canadians.

Does rejecting UBB cause an undue advantage ?

109. Bell Canada has argued that rejecting UBB, or lowering the UBB rates would grant GAS ISPs an undue advantage. It should be noted that Bell Canada is free to remove UBB form its retail offering any day it wants. It can shape its service any way it wants.

110. Unless UBB is rescinded, GAS ISPs will be under an undue disadvantage because they will not have any freedom with regards to UBB while the incumbents will remain unregulated and retail full freedom.

111. Incumbents should be given a choice between no retail ISP regulation at all, or a retail ISP regulation that encompasses all retail ISPs, including the incumbent's own. If they refuse to have their retail ISP business regulated, then they should have no business asking the federal regulator to regulate their competitor's retail ISP business.

This section discusses some issues specific to the tariff. In and by themselves, may not be very important, but show that the Commission has allowed a tariff to be implemented without proper attention to details.

Acceptable Use Policy

112. In a little noticed area of the tariff, Bell Canada specified that retail users of GAS ISPs would be subjected to its retail Acceptable Use Policy . Appendix 2 contains a copy of the AUPs which Bell Canada submitted in response to a Commission interrogatory of August 20th 2009.

113. The Commission has never commented on this in its decisions, despite the issue having been raised in the public record.

114. Since GAS is not a retail service, nor a "white label resale" service, such AUPs have no business belonging to the regulated GAS tariff.

115. There is a greater issue with regards to the Internet. Because IP addresses are associated to each ISP, any investigation of abuse will point to the ISP. Investigators will not see any Bell Canada involvement. Each ISP is responsible for its users, therefore the Commission does not have the authority to grant Bell Canada any responsibility for the internet activities of GAS end-users.

116. Moreover, from a competition point or view, while an individual ISP may wish to impose various restrictions on permitted uses, they have no right to impose such restrictions upon other retail ISP businesses. Such retail micro management of retail ISP operations is well beyond the scope of the GAS service and another example of excessive regulation which is not proportionate to the nature of the GAS service.

117. If this is excessive regulation that is outside the scope of the GAS service, why was it not rejected by the Commission ?

Grandfathering

118. With the 2010-802 decision, the Commission agreed to a retroactive application of a grandfathering cut-off date (February 1 2007). The justification was that providing a current date would cause all current GAS end users to be grandfathered with unlimited plans and the ITMP would be ineffective. The Commission did not consider two main aspects:

- ITMPs would be applied to all users who upgrade to the higher speeds once they become available. So the regulated ITMP would not remain ineffective for very long.
- For Bell Canada's retail service, the UBB regime was introduced after the 5mbps service stopped being offered. There is no symmetry in imposing UBB on a service speed which never saw UBB at Bell Canada.

119. Whereas Bell Canada's retail customers were told from 2006 that any change to their account would end their unmetered service, the GAS retail users made decisions and changes to their accounts without knowledge that such changes would, years later, jeopardize their choice in services.

120. Therefore, the decision to retroactively apply this grandfathering is unjust.

121. **The Commission should not be allowed to retroactively change rules on regulated tariffs.**

122. If Bell Canada wanted a UBB regime to start in 2007, it should have filed tariffs in time for them to be approved and put into service in 2007.

Grandfathering (cont)

123. Secondly, there is an implementation problem with the 2010-802 decision. Paragraph 22 states:

> *GAS ISPs' retail customers who have been with the same ISP since a date prior to 1 February 2007 without initiating any service changes are to be grandfathered; and*

124. Bell Canada's tariff filed as a result of 2010-802 states:

(y) For Residence GAS end-users whose service has continued without any changes since 1 February 2007, Usage Charges do not apply. For such end-users, grandfathered monthly flat rates and charges apply.

(y) Les frais d'utilisation ne s'appliquent pas aux utilisateurs du service d'accès par passerelle résidentiel dont le service n'a pas été modifié depuis le 1er février 2007. Pour ces utilisateurs, les frais et les tarifs fixes mensuels pérennisés s'appliquent.

125. The Québec based ISP "Electronic Box" has been told by Bell Canada that none of their customers qualify for granfathering due to the ISP having made network level changes to its relationship with Bell Canada. Under the Commission's interpretation, the end users, not having initiated any changes, would be eligible for grandfathering. But under Bell Canada's interpretation, they are not.

126. This is what happens when one has overly complex regulatory environment where, after over 2 years of debate, there is still much uncertainty about how a tariff is to be implemented.

Accuracy of usage

127. The 2010-255 decision touches briefly on the accuracy of the usage counting. The Commission accepted Bell Canada's statement that while there would be doubly counted packets, this would represent a very small amount and the Commission judged this to be appropriate. (paragraphs 41 to 44).

128. Independent measurements done in 2008 when the throttling was introduced showed a sustained packet loss rate of between 20 and 25%, requiring that many packets to be retransmitted. For packets bound to the internet, this means that they are counted by the BAS before they are dropped by the DPI equipment.

129. In order to prevent speeds from rising, the DPI equipment must constantly drop packets. This means that packet drops happens throughout a data transfer using applications that Bell Canada has targeted for throttling. Since those applications are used to transfer large files, the inaccuracy becomes significant.

130. Furthermore, because of the throttling, there will be 3 different counters which cannot be reconciliated:

- the user's counter will match the BAS's counter in terms of retransmitted packets in both directions (they are both on the same side of the DPI equipment), but may not count the same data (the user's counter may include ethernet headers while the BAS doesn't).
- the ISP's counters will have a lower count for upload traffic since it will not see packets which the DPI will have dropped. However, it will be higher for downloads since the ISP's counter will count packets sent multiple times but received by the BAS and user only once (due to throttling).
- the BAS counters are under the control of Bell Canada and few details have been released to allow individual users to compare their own usage with what Bell Canada ends up counting.

131. This means that at the end of the month, any attempt to reconciliate usage will fail because usage counters from users, Bell Canada and the ISP will have counted different amounts of traffic. And in the case of errors with the Bell Canada invoicing, it becomes very difficult to prove an error has occurred.

132. In an email dated January 7th From: Luigi.Buffone@ic.gc.ca to to a Frank Moulton Jr, the Industrty Canada spokesperson for Weight and Measures indicated the following:

> *However, these Acts are silent with regards to bandwidth measuring devices for internet usage billing. Measurement Canada does not currently regulate devices that use bits and bytes to measure internet usage, as is also the case with national legal metrology laboratories in most industrialized countries.*

133. **Should the government agree to impose a billing paradigm based on usage that is known to be inaccurate by over 20% in some cases ?** Considering that its Weight and Measures Act provides no protection against inaccuracies in data counters, and considering that usage meters at the end-user, Bell Canada and ISP will have different totals, there will be no way to gauge whether the amounts charged by Bell Canada will be fair and reasonable.

134. On this basis, the regulator should refuse UBB to be incorporated in regulated tariffs.

Appendix 1 - Regulatory History of TN7181

The long and tedious process leading to this petition demonstrates that the principles embodied with this tariff are incompatible with the competitive needs of ISPs and the market.

13-Mar-2009 Bell Canada files TN7181 (TN242 for Aliant) introducing UBB.
http://www.crtc.gc.ca/8740/eng/2009/b2_7181.htm

- 60 gigabyte monthly limit applied per retail customer.
- 25% discount on retail rates for excess usage ($1.125/gig maximum $22.50)
- No usage charges between 80 and 300 gigabytes of use.
- Possible disconnection beyond 300 gigabytes.
- Possible excessive usage charge of $0.75/gig. (25% discount).
- Applies to 5mbps GAS service despite UBB having been introduced to Bell Canada's retail customers after they had been upgraded to higher speeds 5mbps.

06-Jul-2009 Public hearing begins for 2008-19: Review of the Internet traffic management practices of Internet service providers. (ITMPs include throttling and UBB).

12-Aug-2009 The Commission renders interim decision 2009-484 before decision on ITMPs
http://www.crtc.gc.ca/eng/archive/2009/2009-484.htm

- TN7181 approved in whole except for uncorrelated usage to be decided later.
- Implementation within 90 days (despite indecision on uncorrelated usage)
- Over 6000 comments received by the Commission against this tariff.

20-Aug-2009 Vaxination Informatique files a Stay of Execution request, citing, in part, an unrealistic implementation schedule and regulatory uncertainty (decision on matching speeds petition, Commission's decision on the ITMP hearings).

10-Sep-2009 MTS Allstream Inc. and Acanac Inc. appeal the 2009-484 decision at the Federal Court of Appeal
http://acanac.com/3333/Affidavit%20of%20Teresa%20Griffin-Muir.pdf
http://acanac.com/3333/Memorandum%20of%20Fact%20and%20Law.pdf
http://acanac.com/3333/Notice%20of%20Motion%20for%20Leave%20to%20Appeal.pdf

11-Sep-2009 Teksavvy Solutions Inc. files a combined Stay and Review&Vary application.
http://www.crtc.gc.ca/PartVII/eng/2009/8662/t117_200912635.htm

18-Sep-2009 MTS Allstream files a Review and Variance application.
http://www.crtc.gc.ca/PartVII/eng/2009/8662/m59_200912825.htm

05-Oct-2009 In a response to interrogatory, Bell Canada discloses the retail Acceptable Use Policy it wishes to impose onto the wholesale service. The link provided in that response is no longer valid at the time of writing of this petition. (see Appendix 2)
docs-1281762-TN 7181 - Responses to interrogatories - Bell Canada - The Companies(CRTC)20Aug09-3.DOC

(continued on next page)

Regulatory History of TN7181 (cont)

21-Oct-2009	Commission renders decision 2009-658 in response to the MTS-Allstream and Teksavvy Stay/R&V, maintaining the 484 decision, but varying its implementation date to be decided by the final decision.
21-Oct-2009	Commission renders Regulatory Policy CRTC 2009-657, the Review of the Internet traffic management practices of Internet service providers. (Covers Throttling and Economic ITMPs) http://www.crtc.gc.ca/eng/archive/2009/2009-657.htm
18-Dec-2009	Close of public record for TN7181 (and TN242).
06-May-2010	Commission renders final decision CRTC 2010-255. http://www.crtc.gc.ca/eng/archive/2010/2010-255.htm It approves TN7181 with the following caveats:

- Uncorrelated charges denied. No guidance on implementation.
- Implementation 6 months from decision, but not before Bell Canada has converted all its retail customers to a UBB regime.
- Bell Canada required to file "insurance plans[1]" to match its retail offering.
- Same UBB rates as approved in 2009-484, but Commission orders slight reduction of the GAS base price.
- Dissenting opinion from commissioner Candice Molnar

28-May-2010	Bell Canada files a Review and Variance, unhappy with the 2010-255 decision which was in its favour. Argues against 25% discount for wholesale pricing and against its need to move all its retail customers to a UBB regime before implementing UBB for GAS. http://www.crtc.gc.ca/PartVII/eng/2010/8662/b54_201009051.htm
21-Jun-2010	Bell Canada files TN7264 (Aliant: TN325) for "insurance plans". Same price as its retail offering with no wholesale discount ($5.00 for 40 gigabytes of usage).
30-Aug-2010	The Commission renders 2010-632, the long awaited "Wholesale high-speed access services proceeding" decision. There are two major conclusions: speed matching is necessary, and GAS is still needed to prevent formation of a duopoly. http://www.crtc.gc.ca/eng/archive/2010/2010-632.htm
02-Sep-2010	Commission renders decision 2010-657 approving "insurance plans" (TN7264 and 325) http://www.crtc.gc.ca/eng/archive/2010/2010-657.htm

(continued on next page)

1 proper terminology would be "pre-paid usage plan" since there is no "insurance" nor protection from high bills.

Regulatory History of TN7181 (cont)

28-Oct-2010	Commision renders decisions 2010-802, varying the 2010-255 decision as demanded by Bell Canada. http://www.crtc.gc.ca/eng/archive/2010/2010-802.htm

- -Bell Canada's retail internet remains unregulated, can maintain its grandfathered customers.
- 25% discount for the UBB rates as Bell had submitted in TN7181 removed.
- "Regulatory Symmetry" used to justify Bell Canada imposing retail rates on its competitors.
- GAS ISPs may grandfather customers who have not initiated service changes since 01-Feb-2007.
- Whenever Bell Canada changes its unregulated retail service, new tariffs will have to be filed to force independent ISPs to reflect those changes in their retail offering.

28-Oct-2010	The Commission initiates public consultation 2010-803 to inquire whether it is right for incumbents to charge full retail rate for the wholesale services (GAS/DSL and TPIA/cable) http://www.crtc.gc.ca/PartVII/eng/2010/8661/c12_201015975.htm
22-Nov-2010	CNOC files a combined Stay and Review&Vary of CRTC 2010-802 seeking to have determination on UBB retail pricing removed from the decision until the outcome of the 2010-803 consultation has been made public.
24-Nov-2010	Commission denies CNOC Stay+R&V but agrees to expedite the decision on the 2010-803 consultation. It re-affirms the TN7181 implementation date of January 26th 2011.
14-Dec-2010	Bell Canada files TN7293 with matching speeeds, but more importantly, uses the retail pricing precedent set by 2010-802 to impose its own complex retail pricing onto competitors retail offerings. A few days before, the cable companies filed similarly retail controlling tariffs.
25-Jan-2011	The Commission renders decision 2011-44 as a result of the 2010-803 consultation. It varies the 2010-802 decision by granting a 15% reduction on the regulated UBB costs for both GAS and TPIA. This barely covers administrative costs and does not give any freedom for ISPs to differentiate themselves in a meaningful manner. http://www.crtc.gc.ca/eng/archive/2011/2011-44.htm

Appendix 2: Imposed Acceptable Use Policy

The next pages include Bell Canada's "Acceptable Use Policy" for its retail internet access service which was included in its response to an August 20th 2009 interrogatory. The internet link provided at the time is no longer valid so this remains the only official record of the AUPs Bell Canada is imposing onto its competitors' customers with the approval of TN7181 by decisions 2010-255 , 2010-802 and 2011-44 .

Bell Internet Services - Acceptable Use Policy

Introduction

Bell Canada ("Your Service Provider") is committed to being a responsible network citizen. To assist Your Service Provider in protecting the usefulness and enjoyment of the Internet, you agree to abide by the terms of this Acceptable Use Policy (the "AUP"). Any violation of this AUP will constitute a violation of the terms of your Service Agreement and may result in the termination of such Service Agreement and/or suspension of your Service thereunder.

If you have any questions about this AUP, do not hesitate to contact Your Service Provider via email at abuse@sympatico.ca.

For the purposes of this AUP, "Internet host" means any computer or electronic device connected to the Internet. Terms not otherwise defined in this AUP will have the meanings set out elsewhere in the Service Agreement.

General

Your Service is solely for your personal and non-commercial use; without limitation, you may not use the Service or any equipment provided in connection with the Service for operation of an Internet service provider's business or for any other non-residential purpose.

Harassing or abusive language or actions, whether verbal, written or otherwise, of Your Service Provider's employees, suppliers, agents and representatives is strictly prohibited and will not be tolerated.

You are prohibited from using the Service for activities that include, but are not limited to:

- Transmitting unsolicited messages which, in the sole judgement of Your Service Provider, cause significant disruption or elicit complaints from other Internet users.
- Restricting or inhibiting any other user from using or enjoying the Internet, impairing the operations or efficiency of the Service or creating an unusually large burden on our networks, or otherwise generating levels of Internet traffic sufficient to impede other users' ability to transmit or receive information.
- Harassing users or groups in any way including but not limited to defaming, abusing, stalking, threatening or otherwise violating the legal rights of others.
- Impersonating other Bell Internet subscribers or other Internet service providers' subscribers in any way.
- Uploading or downloading, transmitting, posting, publishing, disseminating, receiving, retrieving, storing or otherwise reproducing, distributing or providing access to information, software, files or other material which (i) are confidential or protected by copyright or other intellectual property rights, without prior authorization from the rights holder(s); (ii) are defamatory, obscene, child pornography or hate literature; or (iii) constitute invasion of privacy, appropriation of personality, or unauthorized linking or framing.
- Falsifying or deleting any author attributions, legal or other proper notices or proprietary designations or labels of the origin or source of software or other material contained in a file or other data.
- Transmitting, posting, publishing, disseminating, receiving, retrieving, storing or otherwise reproducing, distributing or providing access to any files, program or

Appendix 2: Imposed Acceptable Use Policy (cont)

information designed to assist users in defeating copy-protection, registration and any other anti-theft mechanisms associated with commercial or shareware programs.
- Transmitting, posting, receiving, retrieving, storing or otherwise reproducing, distributing or providing access to any program or information designed to assist in the fraudulent use of telecommunications services.
- Using an Internet host's resources in a manner which is not authorized by its administrators. This includes mail relaying, transmitting chain letters, make-money-fast or pyramid style schemes of any sort.
- Posting or transmitting any information or software which contains a virus, "cancelbot", "trojan horse", "worm" or other harmful or disruptive component.
- Transmitting, posting, receiving, retrieving, storing or otherwise reproducing, distributing or providing access to any program or information constituting or encouraging conduct that would constitute a criminal offence or give rise to civil liability.
- Violating or breaching any applicable laws and/or regulations.

Electronic Mail

The Bell Internet Mail service, as further described in your Service Agreement, is for your personal and non-commercial use. You may not sublicense, distribute, transfer, or sell the Bell Internet Mail service or any portion thereof.

You agree to use the Bell Internet Mail service only to send and receive messages and material that are proper. In addition to the general terms set out above, and by way of example, and not as a limitation, you agree that when using the Bell Internet Mail service, you will not:

- Use such service in connection with pyramid schemes, spamming or any unsolicited messages (commercial or otherwise).
- Restrict or inhibit any other user from using or enjoying such service.
- Create a false identity for the purpose of misleading others or forge the headers of your email messages in any way.
- Use, download or otherwise copy, or provide (whether or not for a fee) to a person or entity any directory of users of such service or other user or usage information or any portion thereof.
- Promote or facilitate the transmission of unsolicited email messages.
- Attach an excessively long signature to your messages.
- Send messages to disrupt or cause difficulties in receiving other email.

In the event that you maintain one or more bulk "opt-in" email lists, you must have a method of confirmation of subscriptions and be able to provide such information when requested by Your Service Provider. At the discretion of Your Service Provider, if no such evidence is available, such bulk emailings may be considered as unsolicited.

Your Service Provider reserves the right, in its sole discretion, to set an upper limit on the number of recipients of customer initiated email, the number of subscribers on a customer's bulk "opt-in" email lists, and the number of messages a customer may send or receive through the Bell Internet Mail service.

Neither Your Service Provider nor any of its suppliers has any obligation to monitor the Bell Internet Mail service. However, Your Service Provider and its suppliers reserve the right to review materials sent through such service, and to remove any materials in their sole discretion. Your Service Provider, in its sole discretion, may terminate your access to the Bell Internet Mail service at any time, without notice.

Appendix 2: Imposed Acceptable Use Policy (cont)

Your Service Provider and its suppliers reserve the right at all times to disclose any information as they, in their sole discretion, deem necessary to satisfy any applicable law, regulation, legal process or governmental request. Your Service Provider and its suppliers further reserve the right at all times to edit, refuse to post or to remove any information or materials, in whole or in part, in their sole discretion.

Newsgroups/Discussion Forums

In addition to the general terms set out above, while posting to newsgroups or any other discussion forum, you are prohibited from conducting activities that include, but are not limited to:

- Posting advertisements, commercial or unsolicited messages of any kind, unless expressly permitted by the charter or FAQ of the applicable newsgroup or discussion forum.
- Posting binary or excessively large files of any kind, unless expressly permitted by the charter or FAQ of the applicable newsgroup or discussion forum.
- Posting substantially identical messages to more than 10 newsgroups.
- Attaching an excessively long signature to your messages.
- Forging the headers of your postings in any way.
- Newsgroup and forum postings must comply with each newsgroup's or discussion forum's respective charter or FAQ.

Internet Relay Chat ("IRC")/Chat

In addition to the general terms set out above, while using IRC or any other chat service, you are prohibited from conducting activities that include, but are not limited to:

- Sending messages that include advertisements or commercial content of any kind in an unsolicited matter.
- Attempting a Denial of Service attack either automated via a bot or manually conducted.

Additionally, while using an IRC Server or any other chat service, you must be in full compliance with the rules and regulations set out by the server administrator.

Appendix 2: Imposed Acceptable Use Policy (cont)

Network/Security

In addition to the general terms set out above, you are prohibited from using the Service for activities that include, but are not limited to:

- Sharing of your Account User ID and password for any purpose, including for the purpose of concurrent login sessions from the same Account.
- Causing an Internet host to become unable to effectively service requests from other hosts.
- Running and/or hosting server applications including but not limited to HTTP, FTP, POP, SMTP, Proxy/SOCKS, and NNTP.
- Analyzing or penetrating an Internet host's security mechanisms.
- Forging any part of the TCP/IP packet headers in any way.
- Committing any act which may compromise the security of your Internet host in any way.

As further set out in your Service Agreement, you are solely responsible for the security of your system and Account. Your Service Provider will offer full co-operation with law enforcement agencies in connection with any investigation arising from a breach of this AUP.

In the event that numerous complaints are received by our staff in regards to any breaches of this AUP, at the discretion of Your Service Provider, a processing fee per complaint received, in addition to an administration fee, may be applied to your Account.

Updated as of May 15, 2006.

*** end of document ***