

CRTC 2010-803

Reply Comments

09-Dec-2010

8661-C12-201015975 - NC 2010-803

**Usage-based billing for Gateway Access Services
and third-party Internet access services**

Jean-Francois Mezei

Vaxination Informatique

jfmezei@vaxination.ca

Montréal, Québec

09-Dec-2010

Table of Contents

Introduction and general comments	3
Is there a <u>requirement</u> for regulatory symmetry ?.....	3
Response to comments.....	4
Flat rate pricing	4
Three pronged approach	4
Pricing choices.....	5
Big Picture Response	6
Behaviour Based Billing.....	6
Discriminatory Pricing	7
Asymmetrical costs	8
Cost of managing billing discrepancies	9
Marketing based pricing	10
Duopoly and service deterioration.....	11
Conclusion	13

Introduction and general comments

1. Vaxination Informatique submits its December 9th reply comments for the 2010-803 public consultation.
2. Vaxination is in receipt of initial comments from the following: The Cable Carriers, Bell Canada (the Companies), Distributel Communications, Canadian Network Operators Consortium (CNO), Canadian Association of Internet Providers (CAIP), and MTS Allstream.
3. Vaxination is also in receipt of The Companies' matching speeds tariffs: TN345 (Alliant) and TN7290 (Bell Canada). Although not part of this consultation, these tariffs provide insight of regulatory problems that will arise should retail symmetry become an acceptable precedent and/or requirement.
4. The 2010-803 consultation was launched specifically to debate whether regulatory symmetry in 2010-802 was taken too far. This consultation is about finding the right level of regulatory symmetry to support and foster the goals set in the Policy Direction and Section 7 of the Act.
5. Discussion on why the pricing philosophy approved by 2010-802 is impractical and supplying rationale for a different billing approach that better meets the Policy Direction goals is entirely within the bounds of this consultation.

Is there a requirement for regulatory symmetry ?

6. Bell Canada and the Cable companies bring up the issue of regulatory symmetry requirements. Paragraph 1 (b) (iii) of the 2006 Policy Direction document contains the only reference to symmetry. The Telecommunications Act makes no mention of any requirement for symmetry.

(iii) if they are not of an economic nature, to the greatest extent possible, are implemented in a symmetrical and competitively neutral manner, and
7. While there is rationale for supporting a certain degree of symmetry for fairness purposes, section 1(b) applies only to regulated services. Required symmetrical application of features from an unregulated to a regulated service will lead to Telecom Act compliance issues. Symmetrical imposition of retail features/pricing to a service which cannot be sold as retail does not make sense.
8. Regulatory symmetry must not come at the expense of competitiveness. It should stay at an sufficiently abstract level to allow for product differentiation. Matching speeds philosophy is a good example of sufficiently abstract principles where symmetry makes sense.
9. In decision 2010-632, the Commission acknowledged that without independent ISPs, the incumbents would form a duopoly. The Commission must remember that duopoly retail practices, must not be allowed to be imposed on competition because this kills competition driven market forces.
10. Fair treatment does not require identical treatment. Competitively neutral treatment must not require identical treatment.

Flat rate pricing

11. In paragraphs 3, 4, and 14 of its November 29th comments, Bell Canada argues that flat rate pricing is no longer desirable for this type of service. While Bell Canada has called TN7181 "Usage Based Billing", the nature of this tariff is NOT usage based. It was pitched as, discussed as, and approved as an ITMP designed to curb usage. A true usage based billing system would be linear in nature to adopt a "user pays" philosophy, and priced to encourage additional usage and promote investment to support more growth. Bell Canada's ITMP is designed to do the exact opposite.
12. It should be noted that Bell's Canada convoluted UBB rates don't even do a good job of controlling citizen's behaviour since the flat priced plateaus between 0-60 and 80-300 gigabytes encourage increased use once the user has entered that flat plateau.
13. The Commission must be reminded that while Bell Canada mentions only GAS, GAS cannot be purchased without AHSSPI which is capacity based. Therefore the claim that the GAS service is flat priced is false.
14. Had Bell Canada wished to modulate the service's pricing to be more usage sensitive, it could have made adjustments to AHSSPI to generate revenues that were better coupled with investment requirements to support growth in usage. This would have remained a neutral, bulk/wholesale structure and have required far less regulatory debate.

Three pronged approach

15. In paragraph 4 of its submission, Bell Canada once again presents its three pronged approach. While the Commission has ruled separately on each of Bell's 2 ITMPs, it has not had a process to evaluate how they integrate into a total "three pronged approach" solution, especially with respect to how they impact the 3rd prong: investment to grow capacity.
16. In the context of section 7 of the Act, the Commission should ask whether the combination of both ITMPs implemented by Bell Canada, promote investment and increased use of the internet. Both Bell Canada and Cable admit in their replies that the goal of an economic ITMP is to curb growth. This ends up reducing the need/pace of capacity upgrades and goes against any goal to increase reliance on the Internet to make this nation more globally competitive.
17. It should also be noted that Bell Canada's technical ITMP implemented with DPI equipment is also a behaviour shaping ITMP because it renders certain applications unusable for 10 hours every day whether there is congestion or not. It thus conditions Canadians to live after 02:00am because their internet is unusable between 16:30 and 02:00.

Response to comments

Pricing choices

18. The Cable and Telcos argue that the retail pricing level for their economic ITMP is set to provide a certain level of behaviour control and that it would be unfair if independents were allowed to charge less since their users would have less incentive to curb their usage.
19. It is exactly because the Cable and Telcos are right about this that the Commission must reject this pricing philosophy since it is intrinsically anti-competitive.
20. Competitors must be allowed to purchase different amounts of capacity per user (oversubscription ratio) to differentiate their offering, and different oversubscription ratios require different levels of ITMPs to match customer demand with purchased capacity. Imposition of identical ITMP levels onto all competitors defeats their ability to differentiate themselves by building better quality network (more bandwidth per customer) than incumbents.
21. The whole concept of regulatory symmetry at the retail level is blatantly anti competitive especially when it is a market controlling duopoly which sets and then imposes pricing and restrictions on smaller competitors.
22. The Commission must consider that it is the retail customers who bear the brunt of its decisions because they are the ones who lose choices, they are the ones who pay punitive fees , and they are the ones who read about all the new internet based applications everyone outside of Canada have started to use but fear trying them because of the low limits imposed by the Canadian duopoly.

Behaviour Based Billing

23. Both Cable and Bell Canada have confirmed that the goal of their economic ITMP is to affect behaviour of customers to prevent growth in demand. **TN7181 is not Usage Based Billing.** It should instead be considered Behaviour Based Billing. (as well as the TPIA counterparts). Since Bell Canada's implementation has a nonlinear nature and uses punitive pricing, it does not embody a "user pays" paradigm. To be neutral and allow competitive forces in the market place, the last mile access service should be purely cost based and not use punitive pricing. Behaviour Based Billing can only work when a service is sold to individuals. Neither GAS nor TPIA services can be sold to individuals. They are sold to service providers.
24. A true Usage Based Billing paradigm would implement a linear "user pays" pricing which translates increased usage into increased profits and thus provides incentive to invest to add capacity. The scheme presented by Bell Canada and TPIA work in the exact opposite way by curbing growth in order to allow incumbents to reduce/delay capacity upgrades.
25. Reworking the AHSSPI portion of GAS could have given Bell Canada the profit curve needed to give it the incentive to invest to welcome increased growth and thus increased profits. That would assume Bell Canada is interesting in seeing independents grow instead of trying to impose restrictions that prevent them from competing.
26. Translating this to TPIA could result in a bulk usage based system where usage is measured at each POI and the ISP billed for bulk usage instead of per-user usage. This would be far simpler and cheaper to implement and allow greater flexibility for ISPs to design their offering.
27. **Moving pricing back to bulk/wholesale level solves the "regulatory symmetry requirement" problems because there would be no retail component that needs to be matched to an incumbent's own retail operation.**
28. The Commission must consider which is best for Canada and which best fits the goals set by the Policy Directives:
 - Behavioural Based Billing designed to prevent increased use of Internet, and prevent adoption and deployment of new applications made possible by higher speeds. This distorts the market especially when both cable and telco form a duopoly with similar offerings that are imposed on the rest of the market.
 - Usage Based Billing which incorporates a user-pays paradigm would be bound to 27(1) and 27(2) of the Act, and pricing levels would be set to provide incentive for capacity investments to increase use and profits for the operator. This would be profitable to the incumbents while granting competitors full flexibility to shape their service the way they want without artificial restrictions imposed by the incumbents.

Discriminatory Pricing

29. TN7181 provided unified pricing across Québec and Ontario as well as a 25% discount to make it easier for the Commission to approve and also accept the regulatory symmetry arguments. But if allowed to set a precedent, this will come back to haunt the Commission.
30. The Commission must consider how it will handle future cases where a requirement to have regulated retail pricing tied to the incumbent's unregulated retail operations could result in rates and/or policies which, while valid for a forborne operation, would not be acceptable under federal regulation.
31. Such a case arose when Bell Canada's deposited of TN7290 which has different limits/pricing to affect the behaviour of Quebecers and Ontarians.
32. Whether there is a bulk/wholesale discount of 0% or 99% on Bell Canada's retail rates, the regulated rate would still unjustifiably discriminate between Québec and Ontario and not conform to section 27(2) of the Telecommunications Act.
33. Blind application of regulatory symmetry requirement could result in some terrible decisions. Some media outlets and political parties would have a field day with a federal government decision that concludes that Francophones need to be charged \$2.50 per gig to affect their behaviour while Anglophones only need be charged \$1.00 to affect their behaviour.
34. When the Commission starts to debate TN-7290, will it ask Bell Canada to produce sociological studies to support its decision to charge Quebecers 2.5 times the rate charged to Ontarians to achieve the same behavioural impact to curb internet use? Are there any acceptable metrics that an administrative tribunal could use to judge whether behaviour shaping techniques are fair and reasonable and non discriminatory?
35. The so called "regulatory symmetry requirement" (if such requirement really exists) will cause many conflicts when incumbents try to impose duopoly-inspired policies onto competitors. Instead of streamlining regulation to make it lighter and apply it solely to the bulk/wholesale aspects of GAS/TPIA services, the retail regulatory symmetry requirement will land the Commission in an endless tirade of tariff changes, Review and Vary, Stays etc. The TN7181 process is a very good example of what happens when an incumbent tries to impose retail restrictions to a non retail service.
36. Regulatory symmetry at the retail level must be avoided unless absolutely necessary, especially when it is applied in a one-way direction from an unregulated to a regulated service with the Commission having its hands tied because it is forced to accept simply because of the so called regulatory symmetry requirement. Regulatory symmetry cannot be allowed to trump more important aspects of the Telecommunication Act especially with regards to sections 7 and 27.
37. The only solution is to completely detach GAS and TPIA regulation from any retail pricing, especially since GAS/TPIA have no retail equivalent. It needs to be a cost based bulk data transport that is totally independent from the incumbent's retail packages. This is the only way to achieve a tariff that can pass all of the tests of the Telecom Act notably section 7 and 27(1) and 27(2).

Asymmetrical costs

38. As a behaviour modifier, the punitive UBB regime is a virtual charge by incumbents to retail customers without any direct input costs. An incumbent can afford to waive those fees. And Bell Canada has won the right to offer such promotions to its own retail customers.
39. To the independent ISP, the imposed UBB regime represents unavoidable direct costs which must be paid to the incumbent with real money. The cannot waive such fees without losing money.
40. This tariff structure confers undue preference upon the incumbent's retail operation due to a nearly 100% profit margin, whereas the independent would have a negative profit margin due to administrative costs and a requirement to charge the same amount to retail customers to ensure symmetrical behavioural impact.
41. Incumbents have argued that effectiveness of economic ITMPs varies greatly with pricing and that allowing independent ISPs to charge less would confer onto them an undue preference because their lower ITMP rates would be significantly less effective at curbing usage. By the same token, forcing independent ISPs to charge more for the ITMP to cover costs would result in disproportionate application of the behavioural modifier, granting the incumbent's retail operation an undue preference onto itself.
42. It also represents billing cycle challenges where an independent ISP needs to pay the incumbent right away but might only be able to collect from customers at the next retail billing cycle. And in the case of billing disputes or nonpaying customers, the ISP would still have to pay the incumbent despite not getting the retail revenues to cover those expenses.
43. The incumbent's administrative costs per customer are much lower, not only due to scale, but also because they have direct correlation between the WTN billing information and the customer profile. Independent ISPs tend to have far simpler billing systems and most are based on the PPPoE credentials for customer identification and I suspect many lack a direct correlation between WTN and customer profile. Despite many statements to this effect during the long TN7181, the Commission still agreed to let Bell Canada charge by WTN. It must be repeated that Bell Canada does NOT transmit WTN information to the ISP's routers during PPPoE establishment so ISPs cannot know where the call comes from.
44. In the case of the incumbents, as there are no direct costs to the UBB charges, they can easily pay for the administrative/billing costs from the UBB revenues. There are cases however where a large ISP has decided against a UBB scheme because the equation of development costs, UBB revenues and expected loss of customers due to this unpopular feature pointed to increased investment in capacity as the better solution.
45. **Symmetrical imposition of duopoly's UBB rates on independent ISPs is not a competitively neutral regulatory solution.**

Cost of managing billing discrepancies

46. In the 2010-255 decision, the Commission accepted the fact that Bell Canada's UBB scheme, combined with its throttling (technical ITMP) will produce inaccurate results. However, it underestimated the scale of such inaccuracies. The protocol targeted by Bell Canada's DPI equipment is commonly used to transfer large files. And since the 20 to 25% packet drop rate happens throughout the file transfer, the accounting errors will be significant.
47. In the case of Bell Canada's retail operation, the relationship is between the retail customer and Bell. In the case of a dispute, Bell Canada can waive the UBB charge since this is a virtual cost.
48. In the case of GAS, if the ISP waves a usage charges to one of its customers, it must still pay it to Bell Canada and hope that Bell Canada will later agree to credit it. There are administrative costs and human resource costs to managing this process which incumbent's retail operations do not have since they can just zap an entry from a customer's bill to adjust it.
49. Many ISPs may use their own router's usage information to generate the bills instead of writing software to parse Bell Canada's convoluted billing. Because of the usage count errors caused by DPI, these ISPs may end up under or over billing their end users, and in the former case, would end up losing money because they would not bill sufficiently.
50. It should also be noted that Bell Canada will count some of the overhead due to the PPPoE session passing through the BAS for GAS, while this overhead is not counted for Bell Canada's retail customers because the PPPoE session is terminated at the GAS before the usage is counted. This overhead includes PPPoE "keep alive" messages and many other control messages.
51. If GAS service were as tightly regulated as gas pumps are for delivery of gasoline, Bell Canada's TN7181 would have been rejected right off the bat due to the significant measurement inaccuracies.

Marketing based pricing

52. In February 2010, Bell Canada deposited TN7237-38-39. In the justification letter for 7239, it stated:

In recognition of the different market conditions in Ontario and Québec, no change is proposed at this time for GAS Access - Residence monthly rates in Québec.

53. "Market conditions" is an euphemism for "we can milk some customers more than others because we set our pricing according to what the local cable company charges". This is a sign of a duopoly in action. Regulated tariffs must remain untainted by duopoly effects and achieving this requires that the bulk/wholesale rates be cost based for raw data transfers and devoid of management, marketing or other policies that are affected by a duopoly context.

54. When incumbents exert dominant market power, they must not be allowed to use "market conditions" as justification for a retail rate. Market forces must work by giving consumers choices and this means refusing to let incumbents use "regulatory symmetry" as an excuse to set competitors' retail rates and service features.

55. The Commission must also understand that retail offerings are often very artificial in nature. Some companies spend money to prevent certain features in a lower cost service just to differentiate it from a more expensive version.

56. In the TN7181 and 7290 Bell Canada is using such marketing tactics when defining basic usage limits as well as per gig costs. Users with lower speeds have far lower odds of generating congestion and should thus have less punitive ITMP pricing. Users with higher speeds are more likely to generate congestion, so they would need more forceful ITMP pricing to control their behaviour.

57. However, marketing departments trump this logic and lower speeds end up with more restrictive ITMPs while higher speeds have less restrictive ITMPs.

58. While this is acceptable for an unregulated service which is marketing driven, this is not acceptable for regulated rates because it extends the incumbent's already excessive market power onto its competitors, preventing them from offering services that are shaped by different marketing philosophy.

59. **This is another example of why it is wrong to accept the concept of regulatory symmetry at the retail level, especially when an unregulated duopoly incumbent's retail service is involved.**

Duopoly and service deterioration

60. In a duopoly situation, one of the two incumbents can introduce an unpopular policy, knowing the other incumbent will follow. The other incumbent will introduce the same policy knowing it won't lose customers since they will not have anywhere to go to escape that policy. This is the very situation that section 7 of the Telecommunications Act as well as Policy Direction document seek to avoid.
61. In a competitive environment, freedom of competitors to set their own prices and policies keeps the duopoly honest because they know they stand to lose customers with bad policies or price increases.
62. Regulatory symmetry at retail level breaks this mechanism and allows the duopoly to introduce any unpopular policy or price hike and not lose customers because competitors are forced to introduce the very same policies or price increase.
63. **Therefore, to allow market mechanisms to function properly, a regulator must not allow duopoly retail practices to influence competitors's retail rates and policies.** The wholesale rates must be devoid of marketing shenanigans, be logical and cost based in order to remain devoid of duopoly artefacts that prevent market forces from working.

64. *Who should financially benefit from Behaviour Based Billing revenues ?*

65. The incumbents are pitching their economic ITMP as a method to modulate end user behaviour to curb usage. They also argue that a lower price would fail to provide sufficient punitive effect to obtain the desired behavioural results.
66. The pricing level is thus set according to intangible social behaviour metrics and not justified by costs. In fact, such rates not only increase incumbents' revenues, but also decrease costs by lowering/delaying capacity investment requirements. Charging more to reduce costs isn't exactly in the spirit of the Act's 27 (1)¹ and gives incumbents undue preference towards themselves as per 27 (2)².
67. Since the stated goal of such an ITMP is to curb usage, and since this goal is accomplished irrespective of what happens to the collected revenues, the Commission should use its power to ensure the revenues are used to foster Policy Direction objectives instead of rewarding incumbents for practices that reduce investment and reduce competitiveness of the nation.
- 68. Therefore, the Commission should shape its decision to ensure the incumbents do not financially benefit from those charges by ordering all GAS and TPIA UBB revenues be held in a broadband development fund which could be used to build competitive infrastructure.**
69. In decision 2010-632, the Commission ruled that a 10% premium over Phase II costs could be charged by Bell Canada as a reward for next generation investment. This policy should also apply in reverse. As implementation of UBB charges results in avoidance of investment by the incumbents, 10% of the value of avoided investments should be contributed by the incumbents to the broadband development fund.
70. The above would provide the incumbents with the immediate relief from the supposed congestion, but would provide financial incentive to start investing in capacity upgrades that will eliminate the need for such ITMP which must not be seen as a long term solution.
- 71. It is not in Canada's interest to have incumbents to use ITMPs to permanently compensate for under investment in infrastructure.**

1 27. (1) Every rate charged by a Canadian carrier for a telecommunications service shall be just and reasonable.

2 (2) No Canadian carrier shall, in relation to the provision of a telecommunications service or the charging of a rate for it, unjustly discriminate or give an undue or unreasonable preference toward any person, including itself, or subject any person to an undue or unreasonable disadvantage.

Conclusion

72. The Commission must accept that, as implemented by both cable and Bell Canada, the economic ITMP is not a Usage Based Billing but rather human behaviour control mechanism to reduce growth in internet usage.
73. The incumbents have made it very clear that symmetric retail pricing of their economic ITMP must be maintained. Their arguments are not about how much the ISPs should pay, but rather to ensure that ISPs charge the same retail rates to ensure equivalent impact on retail customer behaviour.
74. The Commission must accept that:
- neither GAS nor TPIA are internet services
 - neither can be sold as a retail service
 - that regulation of GAS or TPIA must be confined to the nature of those services.
 - Dictating retail ITMP rates to ISPs is outside the bounds of the GAS and TPIA services and would require the Commission formally extend its regulatory reach to include retail ISP pricing.
75. In the event the Commission decides to extend its regulatory reach to impose symmetric retail rates on ISPs, it must provide a sufficient discount in the wholesale rate to cover the independent ISP's costs of administering such an ITMP.
76. Because the goal of curbing usage is obtained no matter what happens to the collected UBB revenues, The Commission should decide what happens to the collected UBB revenues and ensure the money is used to foster the objectives set by Policy Direction instead of lining the incumbent's pockets.
77. Allowing 2010-802 to be implemented with or without a wholesale discount moves the independent ISPs much closer to the white label resale model, a move which goes against the 2010-632 decision which clearly stated that independent ISPs are needed to prevent duopoly situation. And ISPs cannot be considered independent if they are nothing more than white label resellers.
78. Allowing the 2010-802 to set such a precedent will allow incumbents to impose restrictions to nearly 100% of the ISP services, depriving Canadians from choice of internet service providers since incumbents will dictate that all ISPs be identical.
79. The Commission should let individual ISPs decide what ITMPs they need, and ensure GAS/TPIA are neutral bulk last mile access services that are cost based and devoid of retail restrictions imposed by incumbents.
80. **The Commission doesn't exist to render easy decisions. It's duty is to find fair solutions that enable ISPs to differentiate themselves to provide choice, competition and prevent incumbents from exerting control over nearly 100% of the market.**

***** END OF DOCUMENT *****