

Intervention

to

**Canadian Radio-television and Telecommunications
Commission**

by

Vaxination Informatique

regarding

Telecom Notice of Consultation

CRTC 2016-192

**Examination of differential pricing practices
related to Internet data plans**

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Introduction

1. Pursuant to the Commission 2016-192 and 2016-192-1 notices, Vaxination Informatique submits its intervention, and wishes to be considered an **intervenor** and participate in the October public hearing. As the evidence submitted by Vaxination in the **Vidéotron Musique Illimitée** file are supposed to be included in this process, many are not being raised again.

Background....

2. *A long time ago, in a CRTC far, far away...*
3. *It is a period of civil uprising. Rebels, striking from a hidden bases across the country, had fought bravely in the throttling wars, resulting in the **2009-657 ITMP policy** against the evil Incumbent Empire. During the battle, rebels managed to get plans to the Empire's ultimate weapon: the **UBB Death Star** (code named **TN7181**), an armoured regulatory weapon with enough power to prevent competition from ISPs and control the market.*

Fast forward over epic UBB battle which culminated with
the spectacular explosion of TN7181 in 2011;
cue the next episode... The Incumbents Strike Back...

4. *It is a dark time for the Rebellion. Although the UBB Death Star has been destroyed, Imperial marketing troops have found new ways to control the market by introducing zero rating schemes. Obsessed with finding ways to increase **ARPU**, the Emperor and his young apprentice Darth **Bibic** have dispatched thousands of zero rating schemes into the far reaches of the ISP industry.....¹*

1 Any resemblance between the characters in this paragraph and any persons, living or dead, is purely coincidental.

Executive summary

5. The telecommunications services are designed as and must remain utilities that are content agnostic. The "ISP Reference" decisions by the Federal and Supreme Courts were based on telecommunications carriers not having any control over the content they deliver.
6. In a working market, competition should drive usage limits up towards cost. When the limits are high enough, consumers need not worry about the limits for their normal usage patterns and there is no point in the carriers imposing differential pricing schemes.
7. The development of differential pricing is a by-product of a failed market which does not correct artificial scarcity. In fact, differential pricing schemes are designed to protect and prolong artificial scarcity by putting lipstick on a pig in the hopes the regulator and public will be hoodwinked into thinking this is good.
8. UBB limits may be necessary in cases where the cost of providing bandwidth is too high and usage needs to be moderated (ex: Arctic services). There is also a case to be made for UBB limits that are sufficiently high to encourage normal use while protecting an ISP's network from abuse.
9. In the case of wireless voice services, the slow migration to IP voice causes some problems due to the legacy voice being charged in minutes and newer technologies just passing bits in data packets. Differential pricing should be permitted during a transition period of a few years for voice only calls.
10. And because of the rise in access speeds, it should be permitted for an ISP to use differential pricing for IP flows that average less than a certain speed (such as 128kbps), irrespective of its origin or content. This acknowledges the fact that slower traffic requires less capacity in the network and less likely to cause any congestion. Such a policy remains totally agnostic to the provider or content of packets and does not require a content provider sign anything with the end user's ISP.

Underlying principle

11. At the core, there must be a strictly enforced principle which prevents ISPs from treating one content provider differently than another.
12. **Carriers must not control the digital economy, they must enable it.**
13. A strong sense of **functional separation** must be injected into incumbents to prevent their legacy **BDU** instincts (where leveraging content is important) from infecting their telecommunications services.
14. For the economy to prosper, telecommunication must remain a neutral utility.
15. Just as it would be unacceptable for an electric utility to allow brand X refrigerators to run for free but charge for every kilowatt/hour used by other brands, networks must not be allowed to charge differently based on content or origin of packets.

The need for Utilities

The Internet and Digital Economy require utilities.

16. There are very good reasons why the Telecommunications Act implements "utility" (or "common carrier") provisions such as Sections 36 and 27(2). The past, dating back to the railway vs new telephone companies is filled with examples of carriers abusing their powers and interfering with economic development.
17. The Internet makes matters much worse. It is a collection of over 47,000 connected networks² where a content provider needs a relationship with only one Internet provider to reach anyone on the Internet irrespective of which network they are on.
18. Differential pricing schemes are akin to expecting a new innovative service started in a Saint-Narcisse-de-Beaurivage QC garage to sign contracts with every large ISP in Canada (and fit their arbitrary legal requirements/standards) in order to have fair access to potential readers/customers.
19. This goes against the very essence of the Internet where every ends node pays for its traffic and nobody asks for negotiated permission to access content.
20. A company which negotiates for and bundles content is more akin to a BDU. Yet, as was seen in the MobileTV ruling, even "broadcasting" content loses its broadcasting religion during transport over a telecommunications link to the end user as it is mixed with all other traffic.
21. With the transformation from industrial to information age, the economy needs neutral carriers more than ever. Nobody should have to ask permission and sign contracts with distant ISPs that you buy no services from.

2 Autonomous System Numbers or AS Numbers which identify individual networks within the Internet.

Market strength or failure?

22. The wording of the Public Notice appears as an examination of whether "differential pricing" is a means to strengthen market forces by allowing differentiation between providers. The Commission needs to consider the exact opposite.
23. The generic phrase "healthy competition drives retail prices down towards costs" can also be extended to "healthy competition drives usage limits up towards costs", at which point zero rating schemes make no sense.
24. As a result of the great galactic UBB war, wireline ISPs provided sufficient competition to not only stop incumbents from lowering their usage limits further, but reverse the trend and even start to re-introduce unmetered options in 2013. While the failure of CBB rates to follow industry pricing has put a dent on this, the effect is still very visible.
25. For the wireless industry however, artificial scarcity persists due to insufficient market forces which fail to push usage limits up. Tricks such as zero rating exist to give the illusion of a usable and affordable service when its true goal is to maintain the artificial scarcity and grant incumbents the power to raise prices in unison.
26. The fact that a so called "new-entrant" such as Vidéotron would resort to such tactics instead of simply raising usage limits shows how much the incumbent mentality is pervasive in the industry whose goal is to drive ARPU upwards.
27. Fido (Rogers) for instance not only raised prices but also lowered the entry level usage limit from 300MB to 100MB last year.
28. Because incumbent wireless carriers refuse to compete on price, they can only compete on advertising gimmicks, of which zero rating is an important component to hide the fact the lack of competition is continuing to drive prices up. And as is the case for Vidéotron, the gimmick applies only to higher ARPU plans as a means to incent customers to upgrade to a higher ARPU plans. This does not benefit those who need affordable access that they can actually use.
29. There is very good reason that over 80% of "mobile" use is done through wireline service (via home/office Wi-Fi): cellular usage limits have conditioned Canadians to not use their phones outside of WiFi.

Market strength or failure? (cont)

30. If carriers would like to see customers listen to music all day, why don't they increase the usage limits to make this possible ?
31. As such, the Commission needs to consider that **zero rating schemes are the result of market failure**
32. In a healthy market, usage limits exist to allow worry free normal use while preventing abuse.

Cost based UBB

33. During the TN 7181 debate, Bell Canada insisted that UBB limits could not be cost based as they were set at levels designed to **emotionally condition customers to limit their use.**
34. And while it is true that UBB provides a philosophy of "user pays", this only really applies when UBB rates are cost based. And if UBB were cost based, the price difference between a wireline 100GB and 200GB package would so minimal that ISPs might not bother with the 100GB package. This is all about **market segmentation through artificial scarcity.**
35. Non-cost-based UBB at retail level raises it ugly head when one looks at the concept of "sponsored content" or the 800 number equivalent on the Internet. If Google is to negotiate with Bell Canada to pay for end users accessing Google content, it surely will negotiate a cost based approach at pennies per GB of data, whereas the same data charged to end users will be charged at "emotional" rates of tens of dollars per GB.
36. Therefore, sponsored content raises the **27(1) "just and reasonable" rates** as someone buying through the back door pays cost based rates while customers buying retail have to pay rates that have nothing to do with costs as well as the 27(2) clause. (and this is in a situation where the retail customer is already paying for the access to the Internet so that Google data has already been paid for by the retail customer).

Innovation and differentiation in the ISP industry

37. There are suggestions that differential pricing is a form of innovation by ISPs and allows for competition via service differentiation.
38. Telecommunications innovation is deploying a new technology that has greater speeds and greater capacity at lower price. It is not about marketing someone else's innovation (such as a music service) as part of your service.

to stimulate research and development in Canada in the field of telecommunications and to encourage innovation in the provision of telecommunications services;

39. The Act objectives clearly state that the innovation is in the provision of telecommunications services, which is really the transmission of packets. This is not about marketing music services or giving free access to someone else's data (which implies people accessing "unblessed" services pay higher rate to subsidize those services blessed with lower price by carriers).
40. Are 2 carriers who both offer 2GB plans at the same price, but one offers zero rated Spotify while the other offers zero rated Google Music differentiated? Their telecommunication service is identical, only their marketing is different. As a result, there is no competition nor market forces for the telecommunications service.

to respond to the economic and social requirements of users of telecommunications services; and

41. The development of a the economy as a whole, or the "digital economy" in particular, Canada needs a competitive state-of-the-art telecommunication infrastructure. The competition needs to be about who can Having marketing people in a Bay street office conjure up deal with non telecommunications companies to use their logos in exercises does nothing to foster the goals of the Act, and does nothing to help the Canadian economy develop, especially since incumbents tend to go after large established content providers for these zero rated deals.
42. It isn't as it incumbents had started venture capital funds to help the next garage company grow into the next Google in Canada. They are riding on the coat-tails of established well known and foreign companies to try to unblemish their own brand, soiled by bad image of being way too expensive. So not only is this lipstick on a pig, it si

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Voice on wireless

44. Since the introduction of GPRS (packet switched data), data and voice have been separate for wireless services despite both being digital and using same spectrum. For 3G, a separate protocol stack (UMTS) was approved for voice and one for data (HSPA). But for 4G, the LTE specs provide only for a data link.
45. As a result, with 4G, some voice calls may use VoLTE technology (essentially VoIP on the handset's LTE internet link) instead of switching to 3G to use UMTS. At this point, it is impossible for a user to predict whether a telephone number will be handled via VoLTE or UMTS when the caller presses "SEND". But eventually, it is expected all voice calls will be data only and converted to POTS only when the destination is not reachable via IP telephony.
46. One could argue that allowing zero rating of VoLTE calls would be acceptable as it is grand fathering the old POTS functionality to make voice calls, at which point calls would be billed as part of the wireless plan's voice minutes. However, in no case should video calling be zero rated as this is not riding on any grand fathering of old telephone service and the calling and called parties are fully aware that the call is a video call over VoLTE.
47. However, VoLTE is a laggard, late to the game as many competing voice and video calling applications have emerged such as Skype, Facetime, Google Hangouts etc. As such, having lost their leadership role, wireless carriers should not be granted any undue preference towards their own service against more innovative competing services.
48. And the plot thickens... Apple recently announced that its primary telephone app would provide APIs for 3rd party VoIP services. The integration of 3rd party applications on the main telephone app means that a consumer will have even less predictability of how a call will be processed prior to pressing "send".
49. Do to the transitional nature of voice services, Vaxination proposes that carriers be granted 3 or 5 years ability to zero rate VoLTE *voice only* calls to grandfather functionality formerly provided by GSM/UMTS voice only protocols. After that, the zero rating would no longer be allowed to put competitors on equal footing and remove the undue advantage granted to incumbents.
50. In a working market, the usage limits would be high enough that consumers would not have to worry about needing a bankruptcy lawyer whenever they make a voice call.

Conclusion

51. Canada needs a competitive and innovative telecommunications industry where market forces drive speeds up, usage limits up, and prices down. While some progress has been made for wireline, it has not happened in wireless. And as a result, Canada has seen the emergence of many marketing gimmicks such as zero-rating which, contrary to incumbents' spin, are meant to hide the blatant oligopoly where everyone works to keep usage limits artificially low and prices high. It is a sign of market failure, not market forces.
52. So not only are zero rating and sponsored content wrong for the Internet, they are a sign of market failure and ending such practices will make it harder for incumbents to hide their anti-competitive practices.
53. Vaxination looks forwards to reading and reacting to other submissions.

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