

INFORMATION REQUESTED BY
CANADIAN RADIO-TELEVISION AND TELECOMMUNICATIONS COMMISSION

Q. In their 1 September 2006 submission setting out their broadband expansion proposal, the Bell companies stated that services offered to potential customers will be comparable to those provided by Bell Canada and Bell Aliant via their respective commercial broadband programs in Ontario and Quebec. These services would include the full suite of services then available to retail and wholesale broadband service customers.

- a) Explain why the Bell companies are no longer prepared to offer customers in these rural communities the full suite of services available to the Bell companies' retail customers in urban areas.**
- b) Explain why the Bell companies' proposed Retail Wireless Broadband Service outlined in its 15 January 2010 submission is limited only to one service option.**
- c) Explain how the Bell companies proposed Retail Wireless Broadband Service will satisfy the service requirements of small, medium, and large users in the rural communities in question, such that they will receive service comparable to services provided to similar users in urban areas.**

A. Certain information in this response is being filed in confidence with the Commission pursuant to section 39 of the *Telecommunications Act*. Release of this information on the public record would allow existing and potential competitors to formulate more effective business plans and marketing strategies, thereby prejudicing the Companies' competitive position and causing specific direct harm to the Companies. An abridged version of this interrogatory response is being provided for the public record.

a) and b)

In September 2006, the Companies provided broadband services using Digital Subscriber Line (DSL) and fixed wireless broadband technologies, and proposed to use the same technologies to deliver broadband services to the areas that were contained in their deferral account-funded broadband program. As a result, the Companies also proposed to make available the full suite of DSL- and fixed wireless-based services that were offered as part of their commercial program at

that time, with the exception of Sympatico Optimax Internet service, in the areas included in their deferral account program.

In order to use the latest technology, which deliver the many benefits described in part b) of their response to The Companies(CRTC)28Jan10-2 Decision 2008-1, the Companies proposed to deploy High-Speed Packet Access (HSPA) wireless broadband technology to deliver broadband services in the communities approved for the broadband expansion program. As the Companies do not offer a wireless broadband service provisioned using HSPA technology at a price point that is nearly identical to their existing DSL services, a new retail wireless broadband service is being proposed that is lower priced than the mobile broadband services currently offered.¹ All Bell Mobility plans will be available in these areas but the Companies, in addition, will also offer the proposed lower priced service in these areas. The proposed retail wireless broadband service meets the service requirements established by the Commission in Telecom Decision CRTC 2008-1, *Use of deferral account funds to improve access to telecommunications services for persons with disabilities and to expand broadband services to rural and remote communities* (Decision 2008-1), and in fact, for a portion of the customers, provides a download speed of up to 2 Megabits per second (Mbps) which exceeds the Commission-mandated download speed of at least 1 Mbps².

The Companies propose to offer only one retail (in addition to standard Mobility plans) and one wholesale broadband service option in the approved areas for the following reasons:

- First, the proposed service is consistent with, and for a portion of the customers exceeds, the Commission's download speed requirement of at

¹ The Companies' Mobile Internet plans provide only Internet connectivity, require the non-contracted customer to purchase the hardware (Turbo Stick or MiFi equipment), and do not include an e-mail service or any security services.

² Decision 2008-1, paragraph 74.

least 1 Mbps

- Second, the characteristics of the service are comparable to those of a DSL service offered by the Companies in urban areas, namely Internet Essential Plus service in Ontario (Essential Plus-Ontario).
- Third, the Companies expect usage to grow over time. Therefore it is expected that the proposed retail wireless broadband service will include more monthly usage allowance over time.
- Fourth, it is likely that additional wireless broadband services will be introduced that take into account the evolving capability of the HSPA technology.

Unfortunately, with respect to the monthly usage allowance included in the proposed retail wireless broadband service, for the reasons described in part b) of their response to The Companies(CRTC)28Jan10-2 Decision 2008-1, the Companies are not able to include a higher monthly usage allowance similar to that offered in some of their broadband services delivered using DSL technology. The HSPA technology that will deliver broadband to the approved communities has been designed to ensure that, at minimum, 95% of the residents and businesses are able to receive at minimum 1 Mbps of download speed, consistent with the Commission's directive pertaining to minimum download speed to be made available in the approved communities. Further, many residents and businesses in the community will be able to receive a download speed of up to 2 Mbps. The service's download speed will be capped at 2 Mbps so that no customers will be able to download faster than 2 Mbps. Higher download speeds can technically be provisioned for those customers located closer to the HSPA broadband equipment. However, in order to provide a higher download speed to 95% of the residents and businesses in a community, such as up to 5 Mbps offered with DSL technology, the cost of the program would

have to increase to reflect the additional equipment that would have to be deployed. However, any increase in the download speed will not be matched by an increase in the monthly usage allowance for the reasons outlined in the Companies' response to The Companies(CRTC)28Jan10-2 Decision 2008-1.

Alternatively, it is technically possible for the Companies to offer higher download speeds to customers that, similar to DSL, are located close enough to the tower to receive those services, but this speed cannot be guaranteed to reach 95% of the residents and businesses in the community. The Companies are not proposing to create such an option, but can do so (without increasing the cost of the program) if the Commission decides that it is appropriate to direct the Companies to do so.

- c) The Companies' proposed new retail wireless broadband service provides a monthly usage allowance of 2 GB, with additional usage priced at \$2.50 per GB, which is comparable to that offered with their existing DSL-based Internet Essential Plus-Ontario. The Companies assessed the usage of their Essential Plus-Ontario subscribers in 2009 who, as a result of the distance limitations of their DSL-based service³ can only realize a maximum download speed of up to 2 Mbps, and are provided with 2 Gigabytes (GB) of monthly usage allowance, and found that these subscribers' average monthly usage in total ranged from # GB to # GB. The Companies' findings show that the average extra usage was not as a result of a large proportion of subscribers being heavy users, but rather because, on average, the majority (#) of subscribers used less than 2 GB per month. The Companies anticipate that the usage patterns of subscribers to the proposed retail wireless broadband service in the approved communities will be similar to Essential Plus-Ontario subscribers who can only realize a maximum download speed of up to 2 Mbps. Based on these

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³ Current technology limits DSL coverage, in most cases, to lines located within 4.7 kilometres (kms) from the serving interface, based on the length of the access loop to the individual customer's premise.

assessments, the Companies expect that the initial monthly usage allowance of 2 GB provided with the proposed retail wireless broadband service as well as the anticipated increases in the monthly usage allowance over time will satisfy the performance requirements of the large majority of subscribers in these communities.

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Q. Provide the Bell companies' position with supporting rationale with respect to the following adjustments to the proposed Retail Wireless Broadband Service:

- a) The provision of bundled rates that match those offered in the Bell companies' urban areas; and**
- b) the provision of:**
 - i) a usage insurance plan related to the monthly transfer limit equivalent to the one currently offered by the Bell companies in urban areas (i.e. up to 40 GB per month at a rate of \$5 per month); and**
 - ii) caps on the maximum charge for additional usage above the usage allowance.**

A. Certain information in this response is being filed in confidence with the Commission pursuant to section 39 of the *Telecommunications Act*. Release of this information on the public record would allow existing and potential competitors to formulate more effective business plans and marketing strategies, thereby prejudicing the Companies' competitive position and causing specific direct harm to the Companies. An abridged version of this interrogatory response is being provided for the public record.

- a) The Companies will make the \$5 monthly discount available for the proposed service as part of the Bell Bundle. A Bell Bundle customer subscribes to at least two of the Companies' eligible services from the following service categories: Bell Home Phone¹, Bell Internet, Bell TV and Bell Mobility, and receives a consolidated bill (or One Bill) from the Companies for these services.

¹ Home Phone includes the following eligible services: Residential Primary Exchange Service (General Tariff (GT) Item 70.1), Home Phone Basic (GT Item 2226), Home Phone Choice (GT Item 2227), Home Phone Lite Package (GT Item 2231), Home Phone Basic Package (GT Item 2232), Home Phone Choice Package (GT Item 2223), and Home Phone Complete Package (GT Item 2234). If a customer subscribes to any of these services, and the retail wireless broadband service, then that customer will be eligible for a \$5 monthly discount on the retail wireless broadband service. However, as in the case with DSL, only the latter four Home Phone Packages will be eligible for the \$5.00 monthly discount off of the Home Phone service.

- b) In their 15 January 2010 submission, the Companies indicated that the deployment of High-Speed Packet Access (HSPA) technology in the approved communities will not only deliver broadband services but also provide residents and businesses in these communities with significant telecommunications benefits both in the short term and in the future. First, while HSPA wireless broadband technology will enable the Companies to offer all the benefits of Digital Subscriber Line (DSL) technology in terms of providing the approved communities with broadband capability, it notably provides them with a state-of-the-art wireless network that will prepare them to take advantage of future service offerings that will be made available on a wireless platform over the next few years. Second, the deployment of HSPA technology will provide the communities with the added benefits of mobile voice services, which is especially significant in those communities where such services are not yet available. Finally, the deployment of HSPA technology will provide customers with mobile broadband capability which is not available with DSL technology.

While the benefits of HSPA technology are significant, unfortunately the Companies cannot offer a high level of usage or unlimited usage in the form of a cap on the maximum charge for additional usage above the usage allowance or a usage insurance plan with services provisioned using this technology.

Before providing the rationale as to why the Companies cannot offer a cap on the usage charge or a usage insurance plan with broadband services delivered using HSPA broadband technology, it is important to note that very few customers are expected to require or benefit from such a cap or plan. In designing their proposed retail wireless broadband service, the Companies modeled this service to be similar to their DSL-based Internet Essential Plus broadband service in Ontario (Essential Plus-Ontario) which provides up to 2 Megabits per second (Mbps) of download speed and includes a monthly usage allowance of 2 Gigabytes (GB). As alluded to by the Commission, two usage plans are

available with the Companies' DSL services. First, DSL service customers are charged \$2.50 per GB for additional usage above the monthly usage allowance, with a maximum monthly usage charge of \$30.00. Second, DSL service customers can subscribe to a usage insurance plan that provides 40 GB of additional usage for \$5.00 per month.

Upon assessing the usage levels of their Essential Plus-Ontario customers who can only realize a maximum of 2 Mbps of download speed, the Companies found that the majority of customers (#) do not, on average, exceed the 2 GB monthly usage allowance. As noted above, customers of the Companies' DSL broadband services are charged \$2.50 per GB for additional usage with a maximum charge of \$30.00 per month. At \$2.50 per GB for any usage over 2 GB per month, a customer would have to use 12 GB or more per month² for this maximum usage charge to make economic sense. In fact, less than # of the Companies' Essential Plus-Ontario customers exceed 12 GB of additional usage per month. Anticipating that the usage patterns of customers of the Companies' proposed retail wireless broadband service would be similar to those of Essential Plus-Ontario customers, it is estimated that a similar proportion of customers (namely #) would benefit from a maximum usage charge. However, it is likely that if a maximum usage charge was offered then that same group of customers would significantly drive up the usage and, therefore, the costs of the entire broadband expansion program.

Further, of the # of Essential Plus-Ontario customers that exceed the 2 GB monthly usage allowance, about one third (i.e. only # of customers) only used one extra GB per month, which would result in a \$2.50 charge per month. This indicates that a small proportion of customers would benefit from the \$5.00 charge for 40 GB of extra usage. Unfortunately, for the reasons set out below,

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² Derived as follows: $\$30.00 \div \$2.50 \text{ per GB} = 12 \text{ GB}$.

the Companies cannot offer 40 GB of usage for \$5.00 per month with broadband services provisioned using HSPA technology as such pricing is expected to increase usage which in turn would significantly increase the cost of building a network capable of providing such a service.

As with all wireless technologies, HSPA technology employs radio channels that are shared among many customers. Offering larger usage plans per customer would require the Companies to install additional equipment to increase the number of available radio channels to any community. Depending on the type and availability of spectrum required for these additional radio channels, the resulting equipment would be additional base station equipment and/or towers and associated backhaul transport. For this reason, large or unlimited usage is commercially not viable for providers of mobile voice and data services. Given the amount of deferral account funds available for broadband expansion to the approved communities, the proposed retail wireless broadband service takes into account the Companies' need to balance the impact of the associated network costs with service plans in order to achieve an overall affordability to the program. Requiring the Companies to include high usage allowance or unlimited usage with the proposed retail wireless broadband service would render the broadband expansion program too expensive resulting in an uneconomic cost that would likely exceed the total amount available in Bell Canada's deferral account for this purpose.

The Companies note that the cost study deriving the uneconomic cost of the proposed broadband expansion program anticipates that the proposed retail wireless broadband service will be enhanced to gradually increase the monthly usage allowance over time at no extra charge. These assumptions about service enhancements take into account the current capacity limits of HSPA broadband technology as well as capacity improvements that will be achieved through technology evolution.

The Companies are not in a position to offer a maximum usage charge or a usage insurance plan with services provisioned using HSPA technology. Given the requirement to deploy additional network equipment to handle increasing usage levels, preliminary analysis suggest that offering such plans would drive costs in excess of the available deferral account funds. It is important to note that the Companies expect that the vast majority (i.e. #) of customers of the proposed retail wireless broadband service will not be impacted by the absence of a maximum usage charge or usage insurance plan. The Companies submit that if an HSPA-based broadband service is offered in the approved communities then it is very likely that customers will experience the many benefits provided by HSPA technology, as described earlier, and that the number of customers that would realize these benefits will be significantly higher than the limited number of customers that would benefit from a high usage allowance.

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- Q. With respect to the proposed Wholesale Wireless Broadband Service, Commission staff notes that the usage allowance cap of 2 GB is considerably lower than the current usage allowance cap of 20 GB for the Bell companies' Gateway Access Service (GAS) available in urban areas. In light of the Canadian average usage of 12.3 GB in 2008, as reported in the 2009 Communications Monitoring Report, it is apparent that few customers of this service would fall under a cap of 2 GB. Provide the Bell companies' position and rationale with respect to adjusting the cap of the proposed Wholesale Wireless Broadband Service to match GAS service at 20 GB per month.**
- A. Certain information in this response is being filed in confidence with the Commission pursuant to section 39 of the *Telecommunications Act*. Release of this information on the public record would allow existing and potential competitors to formulate more effective business plans and marketing strategies, thereby prejudicing the Companies' competitive position and causing specific direct harm to the Companies. An abridged version of this interrogatory response is being provided for the public record.

Under the Commission's speed matching rule (pursuant to Telecom Decision CRTC 2008-117, *Cybersurf Corp.'s application related to matching service speed requirements for wholesale Internet services*, 11 December 2008)¹, the Companies are required to offer a wholesale service with speeds that match the speeds offered with retail broadband services in the same area. In the communities approved for the Companies' deferral account-funded broadband expansion program the Companies do not have a retail service offer that provides a monthly usage allowance of 20 Gigabytes (GB). As such the Companies' proposed wholesale wireless broadband service is designed to match the retail wireless broadband service proposed for those communities.

¹ The Companies are challenging the applicability of this ruling to its Fibre to the Node services, but not to legacy services. The Companies have already complied with this ruling for their wholesale legacy broadband services – Gateway Access Service (GAS) – in Bell Canada Tariff Notice 7181 and Bell Aliant Tariff Notice 242, filed with the Commission on 13 March 2009.

As noted in response to The Companies(CRTC)28Jan10-1 Decision 2008-1, the Companies' proposed retail wireless broadband service has been specifically designed to meet the directives established by the Commission with respect to the services to be offered in the approved communities. The proposed service offers a download speed of up to 2 Megabits per second (Mbps), which exceeds the minimum 1 Mbps download speed mandated by the Commission, provides a monthly usage allowance of 2 GB, and is directly comparable to an existing DSL service, namely the Companies' Internet Essential Plus service in Ontario. Therefore, the same performance and monthly usage allowance is being offered with the proposed wholesale wireless broadband service. The Companies submit that to require otherwise would give wholesale customers' end-users an advantage over the Companies' retail customers and would further result in the technical challenges related to usage described in response to part b) of The Companies(CRTC)28Jan10-2 Decision 2008-1.

With respect to the Commission's statement in this question that "it is apparent that few customers of this service would fall under the cap of 2 GB", the Companies note that as described in response to part b) of The Companies(CRTC)28Jan10-2 Decision 2008-1,

of subscribers to the Companies' Internet Essential Plus service in Ontario who cannot receive a download speed greater than 2 Mbps and have a monthly usage allowance of 2 GB do not exceed 2 GB of usage per month. Furthermore, # of these subscribers do not exceed 3 GB of usage per month. As such, the Commission's assumption about the usage level of subscribers to the Companies' proposed retail wireless broadband service in the approved communities is incorrect.

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