



## Telecom Decision CRTC 2017-56

PDF version

Ottawa, 1 March 2017

*File numbers: Bell Mobility Tariff Notices 1, 1A, 1B, and 2; Rogers Communications Partnership Tariff Notice 42; and TELUS Communications Company Tariff Notice 501*

### **Wholesale mobile wireless roaming service tariffs – Final terms and conditions**

*The Commission **directs** changes to be made to the proposed final terms and conditions for the mandated wholesale mobile wireless roaming service (mandated wholesale roaming) offered by Bell Mobility, RCCI, and TCC (collectively, the incumbents). These changes, once implemented and approved by the Commission, will ensure that, among other things, the incumbents' tariffs (i) reflect the policy established in Telecom Regulatory Policy 2015-177; (ii) define the scope of mandated wholesale roaming to avoid potential anti-competitive behaviour by the incumbents; (iii) recognize the principle that the incumbents are not required to provide access to their networks to service providers and their customers that do not qualify for mandated wholesale roaming; and (iv) prevent customers that purchase mandated wholesale roaming, or their mobile virtual network operators, from making unauthorized use of the incumbents' networks.*

*The Commission will address the proposed wholesale roaming rates at a later date.*

*In addition, the Commission determines that it will forbear, on a final basis, from the approval of off-tariff agreements for mandated wholesale roaming. This determination will take effect on the date the rates, terms, and conditions for mandated wholesale roaming are approved on a final basis.*

*The Commission's determinations in this decision will, consistent with its determinations set out in Telecom Regulatory Policy 2015-177, facilitate sustainable competition that provides benefits to Canadians, such as reasonable prices and innovative services, as well as continued innovation and investment in high-quality mobile wireless networks.*

### **Background**

1. A mobile wireless carrier (wireless carrier) requires spectrum and a mobile wireless network to provide retail mobile wireless services to subscribers (also referred to as "end-users"). Wholesale mobile wireless roaming service (wholesale roaming) enables the end-users of a wireless carrier (i.e. the home network carrier) to automatically access voice, text, and data services using a visited wireless carrier's

network (also referred to as “the host network”), including its radio access network (RAN),<sup>1</sup> when they travel outside their home carrier’s network footprint.

2. In Telecom Regulatory Policy 2015-177 (the wholesale wireless framework), the Commission determined that it was necessary to mandate the provision of Global System for Mobile communications (GSM)-based wholesale roaming services by Bell Mobility Inc. (Bell Mobility), Rogers Communications Canada Inc. (RCCI),<sup>2</sup> and TELUS Communications Company (TCC) [collectively, the incumbents] to other Canadian wireless carriers and to regulate the rates, terms, and conditions for such services.
3. Previously, the provision of wholesale roaming was forborne from the requirement for the service provider to file a tariff, and the service was made available pursuant to negotiated agreements and Innovation, Science and Economic Development Canada’s (ISED) conditions of licence for mandatory roaming (ISED’s roaming conditions of licence).<sup>3</sup> The Commission’s determination to re-regulate the rates, terms, and conditions was made primarily in light of its finding that wholesale roaming was not subject to a sufficient level of competition to protect the interests of users. The Commission therefore directed the incumbents to provide GSM-based wholesale roaming (hereafter referred to as “mandated wholesale roaming”) to Canadian wireless carriers other than themselves in accordance with the interim rates, terms, and conditions established by the Commission in the wholesale wireless framework.
4. The Commission also determined in the wholesale wireless framework that it was not appropriate to mandate wireless carriers to provide mobile virtual network operators (MVNOs)<sup>4</sup> with wholesale access to their networks (wholesale MVNO access). MVNOs may obtain access to wireless carriers’ networks through negotiated agreements.
5. However, to further the development of a competitive market for wholesale network access, the Commission determined that the incumbents must provide domestic GSM-based roaming to all end-users served by their wholesale roaming customers, including any end-users of MVNOs operating on the wholesale roaming customers’ networks (the MVNO subscriber roaming condition).

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<sup>1</sup> The RAN includes equipment such as towers and antennas; a core network, which includes equipment such as switches and routers; backhaul, which connects the RAN and the core network; billing and operational support systems; interconnections to other networks; and an interconnection to the Internet.

<sup>2</sup> RCCI holds all the business activities, including assets and liabilities, of the former Rogers Communications Partnership, which ceased to exist on 1 January 2016. For ease of reference, “RCCI” will be used in this decision.

<sup>3</sup> These conditions are set out in *Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements* (CPC-2-0-17 Issue 2, March 2013).

<sup>4</sup> An MVNO is a wireless service provider that does not own spectrum or operate its own RAN; instead, it relies on the spectrum and RAN of a wireless carrier and, in some cases, other facilities and/or services, to provide mobile wireless services to end-users.

6. The Commission directed the incumbents to issue interim tariff pages reflecting the interim roaming rates and other determinations set out in that decision. However, several of their wholesale roaming customers objected to the terms and conditions included in the interim tariffs that were issued, arguing that they were more onerous than the terms and conditions in their existing roaming agreements.
7. In response to these concerns, certain uniform terms and conditions for the incumbents' wholesale roaming tariffs were established on an interim basis, and set out in a letter from the Secretary General of the Commission, dated 30 November 2015. These terms and conditions incorporated by reference the most recent existing agreements (other than the rates) between the incumbents and their wholesale roaming customers negotiated prior to 5 May 2015,<sup>5</sup> to the extent that those agreements were not inconsistent with the other interim terms and conditions.
8. On 18 December 2015, the incumbents filed tariff applications containing their respective proposed final tariff pages.
9. The Commission received interventions regarding the terms and conditions proposed in these applications from Bragg Communications Incorporated, operating as Eastlink (Eastlink); the Canadian Network Operators Consortium Inc. (CNOc); Ice Wireless Inc. (Ice Wireless), on behalf of itself and its MVNO affiliate, Sugar Mobile Inc. (Sugar Mobile); Quebecor Media Inc., on behalf of Videotron G.P. (Videotron); Vaxination Informatique (Vaxination); and WIND Mobile Corp. (WIND).<sup>6</sup> The public record with respect to these terms and conditions, which closed on 30 September 2016, is available on the Commission's website at [www.crtc.gc.ca](http://www.crtc.gc.ca) or by using the file numbers provided above. The record for the proposed rates set out in these applications remains open. The Commission will address these rates at a later date.
10. In Telecom Regulatory Policy 2016-313, the Commission forbore on an interim basis from the regulation of off-tariff negotiated agreements for mandated wholesale roaming until the associated rates, terms, and conditions, are approved on a final basis. The Commission indicated that it would address the question of whether off-tariff agreements should be permitted on a final basis once the tariffs are final.

## Issues

11. The Commission has identified the following issues to be addressed in this decision:
  - Should there be a general condition that clarifies what type of access to an incumbent's network wholesale roaming provides?

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<sup>5</sup> Telecom Regulatory Policy 2015-177 was issued on 5 May 2015.

<sup>6</sup> WIND is now known as Freedom Mobile Inc.

- Are further restrictions required to ensure that a wholesale roaming customer and its MVNOs have access to the incumbent's network only on an incidental basis?
- Should prohibitions on in-footprint roaming and traffic offloading be included in the final tariffs?
- What is the appropriate scope of available network provisions?
- What method of network interconnection is appropriate?
- How should network changes be dealt with?
- What quality of service provisions are appropriate?
- Should wholesale roaming customers be mandated to provide traffic forecasts and, if so, how often?
- Should automatic hand-off / seamless roaming provisions be included in the incumbents' tariffs?
- Should call hand-back provisions be included in the incumbents' tariffs?
- Should the Commission make changes to other sections of the tariffs?
- Should off-tariff agreements be allowed?

12. For clarity, the Commission's analysis and determinations in this decision are based on the following primary considerations:

- The tariff for a mandated service sets out the scope of the service that the Commission requires a company to provide in order to foster competition. Commercial terms from negotiated agreements that do not define the scope of the mandated service are not appropriate for the tariff.
- The terms and conditions in the tariff may incorporate by reference technical standards and complementary side-agreements (often referred to as annexes or technical agreements), as long as there is sufficient detail in the tariff for a customer to understand the service they are to receive and for the Commission to determine the appropriate cost elements.
- Consistent with the *Telecommunications Act* (the Act), a company must provide the mandated service only under the terms and conditions set out in the tariff. A Commission forbearance decision permitting companies to enter into off-tariff agreements is required for wireless carriers to enter into any agreement to offer the mandated wholesale service using rates, terms, or conditions different from those set out in the tariff.

- Any service that may be related to the mandated service but that does not fall within the scope set out in the tariff – for example, transport elements that are needed to interconnect but that are excluded from the tariffed service – must be provided in accordance with a separate tariff item, or by commercial agreement if the service is forborne.
- A carrier’s approved terms of service apply to all of its tariffed services, unless otherwise specified. Given that TCC’s General Tariff Terms of Service apply to all of its tariffs – including its Carrier Access Tariff – the company may reference those Terms of Service in this case as well. In addition, RCCI’s Access Services Tariff includes an introductory section called “Definitions and General Terms” that is based on the Commission’s Competitive Local Exchange Carrier (CLEC) Model Tariff and, like TCC’s Terms of Service, applies to all services in its Access Services Tariff unless otherwise specified. Because Bell Mobility is introducing its first tariff, it does not have approved terms of service.

**Should there be a general condition that clarifies what type of access to an incumbent’s network wholesale roaming provides?**

**Positions of parties**

13. The incumbents included in their proposed tariffs a general prohibition on the resale of their networks to ensure that wholesale roaming customers would not use mandated wholesale roaming as a substitute for reseller (including MVNO) arrangements to gain permanent access to the incumbents’ networks for themselves or their MVNOs.
14. The incumbents worded their prohibitions in such a way that an MVNO’s end-users would not be prevented from roaming on their networks. Bell Mobility and TCC each included a clause that explicitly permits roaming on their networks by end-users of MVNOs operating on their wholesale roaming customers’ networks. RCCI did not refer directly to MVNOs in its tariff but instead defined a roaming customer as including the end-user of a reseller.
15. The incumbents proposed that non-compliance with their prohibitions be grounds for suspension to end-users followed by termination of the service.
16. Eastlink, Videotron, and WIND supported the incumbents’ proposed prohibitions on the resale of their networks. WIND, supported by Videotron, submitted that the prohibitions are consistent with ISED’s roaming conditions of licence, which state, in part, the following:
  35. Roaming enables a subscriber (a Roamer) already served by one carrier’s network (the Home Network) to originate or terminate voice or data traffic on another carrier’s network (the Host Network). Accordingly, a subscriber cannot roam unless he or she is already served on another radio access

network. A carrier must therefore be offering service on its own network before its subscribers may benefit from roaming on another network, thus it does not include resale.

17. WIND also referred to the Commission's definition of roaming from the wholesale wireless framework, which is reproduced in paragraph 1 above. The company submitted that the Commission's definition clarifies that the wholesale roaming tariff is not to be used as a substitute for reseller arrangements. WIND argued that this definition, along with a general prohibition on resale, would ensure that all roaming is incidental, and that no other restrictions are required.
18. Similarly, Videotron referred to paragraph 45 of the wholesale wireless framework, submitting that it clarifies that wholesale roaming is not to be used as a substitute for reseller arrangements:

45. ...Wholesale roaming provides incidental access to the host network by the customers of a wireless carrier when these customers are outside their home network's footprint. In contrast, wholesale MVNO access provides an MVNO's customers with permanent access to the host network...
19. CNOC and Ice Wireless disagreed with the proposed prohibitions, submitting that they were in direct conflict with the MVNO subscriber roaming condition and would prevent the introduction of new and innovative business models in the provision of wireless services to Canadians.
20. To illustrate its point, Ice Wireless referred to the example of the mobile wireless service offered by its affiliate Sugar Mobile. This service, which works through an application installed on unlocked mobile devices, enables end-users to access unlimited voice, text, and data over public Wi-Fi networks, free of charge. When the end-users are not in an area with public Wi-Fi connectivity, they are able to access up to 200 megabytes of non-Wi-Fi data per month at a fixed rate. To provide this data, Sugar Mobile entered into an MVNO agreement to access (and resell) the wireless network of Ice Wireless, a carrier with spectrum and wireless facilities in the North. Ice Wireless has a roaming agreement with RCCI, and Ice Wireless and Sugar Mobile customers are able to access RCCI's network when they are outside Ice Wireless's network footprint.
21. Ice Wireless submitted that through services such as Sugar Mobile's, customers primarily rely on public Wi-Fi networks and are only incidentally using the incumbent's network. It argued that the proposed prohibitions would prevent the development of new business models because the use of the Wi-Fi connection would not be considered a "home network."
22. The incumbents, as well as Eastlink, Videotron, and WIND, submitted that Wi-Fi network use should not be considered use of the home network. RCCI submitted that the right to mandated wholesale roaming does not extend to Wi-Fi service providers and that under ISED's roaming conditions of licence, mandated wholesale roaming

is limited to licence holders for certain service bands that do not include Wi-Fi bands. It also submitted that, in the specific case of Sugar Mobile raised by Ice Wireless, the vast majority of Sugar Mobile's customers will never set foot in Ice Wireless's operating territory and that, therefore, 100% of these customers' mobile wireless data usage will be on RCCI's network. It argued that this is pure resale (permanent access) of an incumbent's network without its permission. Videotron submitted that the fact that end-users appreciate and use Wi-Fi offloading opportunities cannot become a vehicle for eliminating all incentives to invest in a carrier's network.

### **Commission's analysis and determinations**

23. Ice Wireless has argued the Commission's MVNO subscriber roaming condition would justify new service models such as Sugar Mobile's.
24. The Commission's primary goal when implementing this condition was to give new entrants the opportunity to resell their own networks and to maximize the use of their networks. The Commission determined that permitting this type of entry would further the development of a competitive wholesale network access market. The Commission was aware that it would be difficult for small carriers to attract MVNO customers if the MVNOs' end-users were able to use only a smaller wireless carrier's network, which would be the case if MVNOs had no way of gaining access to mandated wholesale roaming because they are not wireless carriers.
25. Wholesale roaming provides access to the incumbents' networks on an incidental basis, and the MVNO subscriber roaming condition permits wholesale roaming customers to provide their MVNOs with access to their roaming arrangements only on the same terms and conditions as they themselves would obtain access. It does not provide permanent access.
26. It would be inconsistent with the wholesale wireless framework to permit mandated wholesale roaming to be used as a means to obtain permanent access to the incumbents' networks. Such an approach would render meaningless the Commission's decision not to mandate MVNO access to these networks and would require the Commission to fundamentally redefine the meaning of wholesale roaming.
27. Wireless carriers are increasingly investing in Wi-Fi facilities as an additional way to provide wireless services to their customers. They may use a combination of licensed and unlicensed spectrum to provide service, but they do so by using cellular protocols. Currently, for example, unlicensed spectrum in the 2.4 and 5 gigahertz bands is used for offloading data traffic. When a Wi-Fi network is owned or operated by a wireless carrier, it is commonly referred to as "carrier Wi-Fi," which is an efficient and appropriate technical model by which to provide wireless services.
28. However, carrier Wi-Fi is not the same as public Wi-Fi facilities. Unlike carrier Wi-Fi, public Wi-Fi facilities are not owned or operated by wireless service

providers, nor are there necessarily any contractual or other arrangements between the Wi-Fi operators and the service providers that use them. Accordingly, wireless service providers cannot assure their end-users of the availability, quality, or reliability of such facilities in any meaningful or sustainable way. While the Commission has not yet had to address whether carrier Wi-Fi could be considered a home network for the purpose of roaming, it is clear that public Wi-Fi cannot be so considered for the reasons discussed.

29. For example, neither Ice Wireless nor Sugar Mobile own or operate a network on unlicensed spectrum, and Sugar Mobile customers access their service on Wi-Fi at home or on the type of Wi-Fi offered in coffee shops, for example. Such use of generally available public Wi-Fi requires no infrastructure investment by the wholesale roaming customer or its MVNOs, and neither company would have any control over public Wi-Fi provisioning or the availability and reliability of the service. As such, based on the definition of roaming set out in the wholesale wireless framework, public Wi-Fi cannot form part of the home network, since there would be no way to distinguish between a company's home network and every piece of network equipment in use by anyone in Canada. Moreover, including public Wi-Fi in the definition of "home network" would undermine the policy objectives of mandated wholesale roaming, since it would discourage wholesale roaming customers from investing in their facilities.
30. While it is appropriate for the incumbents' tariffs to clearly prohibit a wholesale roaming customer or its MVNOs from using mandated wholesale roaming to access the incumbent's network on a permanent basis, the wording of the proposed tariffs is unnecessarily complex on this point. Not all of the incumbents provided a clear definition of wholesale roaming as a separate provision, and their use of the phrase "resale of the Service" could cause confusion, since the wholesale roaming customer is effectively permitted to resell the service – that is, to provide incidental access to the incumbent's network – under the tariff.
31. Accordingly, the Commission
  - confirms that mandated wholesale roaming provides incidental, and not permanent, access to the incumbents' networks;
  - clarifies that public Wi-Fi does not form part of a wireless carrier's home network for the purpose of establishing what constitutes incidental use of the visited network pursuant to the relevant wholesale roaming tariff; and
  - clarifies that the MVNO subscriber roaming condition only permits wholesale roaming customers to provide their MVNO customers with access to their roaming arrangements on the same terms and conditions as they would obtain roaming services. The wholesale roaming customer must ensure that any access to the incumbent's network on behalf of its resellers, including MVNOs, occurs on the same basis, and with the same limitations, as set out in the relevant wholesale roaming tariff.



32. The Commission therefore **directs** the incumbents to reword the clauses in their tariffs to remove references to prohibiting the resale of roaming services, and instead to include the following:

- a definition of “roaming service,” which should also indicate that wholesale roaming service provides access to the incumbent’s network on an incidental basis and not on a permanent basis;
- definitions of “home network” and “visited network” that exclude public Wi-Fi; and
- the following text from paragraph 167 of the wholesale wireless framework: “[Incumbent] must provide roaming on their GSM-based mobile wireless networks to all subscribers served by their wholesale roaming partners, including the subscribers of any MVNOs operating on their wholesale roaming partners’ networks.” plus the following sentence: “The wholesale roaming customer must ensure that any access to [incumbent]’s network on behalf of its reseller or MVNO customers occurs on the same basis, and with the same limitations, as set out in this wholesale roaming tariff.”

**Are further restrictions required to ensure that a wholesale roaming customer and its MVNOs have access to the incumbent’s network only on an incidental basis?**

#### **Proposed mobile phone number restriction**

##### **Positions of parties**

33. Bell Mobility and RCCI included in their proposed tariffs a condition stating that, to be able to roam, end-users of a wholesale roaming customer and its resellers (including MVNOs) must have a mobile phone number associated with an exchange within the wholesale roaming customer’s footprint.
34. Videotron submitted that a mobile phone number restriction was reasonable in principle to protect the incumbents’ networks from the threat of resale. It submitted that this measure would be effective and easy to verify.
35. WIND expressed concern that this restriction would prevent it from assigning telephone numbers from non-geographic code blocks intended for use with Internet of Things<sup>7</sup> applications. The company submitted that if it were forced to obtain additional geographic code blocks in the many exchanges in which it operates in order to offer Internet of Things applications, there could be an unnecessary strain on numbering resources.

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<sup>7</sup> The Internet of Things is the network of physical objects that are connected to each other and to the Internet, and that are capable of communicating with humans but also between themselves through electronic identification systems.

36. CNOC and Ice Wireless expressed similar concerns about numbers from non-geographic code blocks.
37. More generally, they submitted that the restriction was inappropriate and should be removed. CNOC took the position that this restriction would prohibit subscribers from making use of roaming when they reside outside a wireless carrier's network footprint but choose to maintain service with the wireless carrier to have access to a telephone number that is local to the wireless carrier's network footprint.
38. Ice Wireless submitted that RCCI's proposed restriction could potentially harm the business model of emerging mobile wireless services such as Sugar Mobile's. It argued that in cases where a wholesale roaming customer's end-user does not use wireless service within the wholesale roaming customer's network footprint, they should not be arbitrarily prohibited from using an incumbent's network. Ice Wireless submitted that there are no valid regulatory or commercial reasons that require resellers' or MVNOs' operations to be restricted to the wholesale roaming customer's network footprint.
39. RCCI agreed with Videotron that the proposed condition would be effective and that mobile phone numbers would be easy to verify. It submitted that a wireless carrier bears responsibility for ensuring that its customers are using its own network.
40. With respect to the concern that the proposed condition would prevent carriers from offering Internet of Things or machine-to-machine services, RCCI submitted that it did not anticipate many situations in which a non-geographic number would be required under the tariff. It submitted that should a wireless carrier seeking to legitimately roam on its network require a non-geographic area code, it would accommodate the request. Bell Mobility also indicated that it is able to accommodate non-geographic numbers.
41. With respect to CNOC's position that requiring wholesale roaming customers to issue phone numbers from exchanges within their network footprint would prevent wireless carriers from offering data-only plans and other differentiated offerings, RCCI submitted that there was no reason why end-users could not be provisioned with a phone number from an exchange where the wholesale roaming customer offers service.

#### **Commission's analysis and determinations**

42. The definition of roaming service and the other changes set out in paragraph 32 of this decision are sufficient to address RCCI's concerns.
43. Furthermore, a mobile phone number may indicate that an end-user is generally located in a specific network footprint. However, there are situations in which there is a legitimate reason for an end-user to have a phone number associated with an exchange situated outside their home carrier's network footprint. This includes porting a mobile phone number from one exchange to another or issuing a non-

geographic number block to support Internet of Things or machine-to-machine services.

44. Bell Mobility and RCCI indicated that they do not oppose the use of such numbers by wholesale roaming customers. Given that these types of numbers are not tied to an exchange, they could not be used to determine whether the user is generally located in a specific network footprint.
45. Therefore, the proposed condition on its own would not reliably prevent wholesale roaming customers from deliberately misusing or abusing the service by reselling access to the incumbents' network outside the home network footprint, and it could result in otherwise legitimate uses of the service being prohibited. Accordingly, it would not be appropriate to include in the tariff rules related to numbering, such as those proposed by Bell Mobility and RCCI.
46. In light of the above, the Commission **directs** Bell Mobility and RCCI to remove from their proposed tariffs the clauses prohibiting customers from gaining access to roaming services if their mobile phone numbers are associated with exchanges situated outside their home carrier's network footprint.

### **Proposed sales, marketing, and device restrictions**

#### **Positions of parties**

47. RCCI proposed provisions designed to prevent resale that would prohibit the wholesale roaming customer from
  - marketing and selling its retail service outside the wholesale roaming customer's network footprint,
  - marketing or promoting its retail service in a manner that would be expected to result in permanent roaming on RCCI's network, and
  - providing a technological device that has as its sole or predominant purpose permitting end-users to engage in permanent roaming.
48. CNOC submitted that the incumbents should not be permitted to dictate how another party chooses to market and sell its services. It also submitted that the proposed device restriction is too broad and vague.
49. WIND submitted that it would be inappropriate for the Commission to approve conditions that limit where or how a company can market its services. It submitted that a prohibition on intentionally selling services that are designed to result in permanent roaming would be more than sufficient to accomplish the objective of encouraging facilities-based deployment by new entrants.
50. Ice Wireless submitted that RCCI's proposed restriction on sales and marketing could potentially harm the business model of new mobile wireless service models

such as Sugar Mobile's. It argued that there is no valid commercial or regulatory reason for prohibiting the sale of a wholesale roaming customer's services outside its network footprint if there are appropriately defined conditions that mandate incidental use of the incumbent's network, using a revised definition of permanent roaming that includes Wi-Fi usage.

51. RCCI cited CNOG's concerns with the proposed device restriction, submitting that the Sugar Mobile subscriber identity module (SIM) cards that Ice Wireless is distributing outside its territory are a good example of the type of device that would contravene the condition. RCCI submitted that it would not interpret the condition to apply to feature phones or smartphones that a roaming partner sells to its customers, assuming that they would use RCCI's network incidentally.

#### **Commission's analysis and determinations**

52. The definition of roaming service and the other changes set out in paragraph 32 of this decision are sufficient to address RCCI's concerns.
53. Furthermore, RCCI's proposed restrictions on sales and marketing would be very difficult to monitor and enforce, and would be onerous on wholesale roaming customers. They would, for instance, require a wholesale roaming customer to continuously monitor the actions of resellers outside its network footprint and to control how resellers market their services. In addition, a condition that effectively allows an incumbent to control the marketing practices of its competitors creates the potential for anti-competitive abuse.
54. The proposed condition restricting the provision of technological devices that have as their sole or predominant purpose permitting the user to engage in permanent roaming is also problematic. RCCI did not propose a definition for this type of device, and it would be very difficult for the wholesale roaming customer to determine if a device has as its sole or predominant purpose permitting the user to engage in permanent roaming. In addition, this condition would be very difficult to monitor and enforce.
55. In light of the above, the Commission **directs** RCCI to remove the following from its proposed tariff:
  - the condition that the wholesale roaming customer and its resellers are not to sell or market their services, other than prepaid top-up cards, at physical retail locations situated outside the home carrier's network footprint;
  - the condition prohibiting the wholesale roaming customer and resellers from marketing or promoting services in a manner that would result in their end-users permanently roaming; and
  - the condition that the wholesale roaming customer is not to provide, and ensure that its resellers do not provide, a technological device to their end-

users that has as its sole or predominant purpose permitting them to engage in excessive roaming.

## **Proposed permanent roaming restrictions**

### **Positions of parties**

56. The incumbents submitted that even with resale prohibitions in the tariffs, permanent roaming restrictions are also necessary. TCC submitted that the purpose of such restrictions is to further the policy that roaming is to be incidental and to set out the limits of wholesale roaming. Bell Mobility submitted that permanent roaming restrictions are needed to clarify when roaming becomes *de facto* resale of the underlying network. RCCI indicated that without resale and permanent roaming restrictions, the incumbents risk having their services abused by unscrupulous service providers, resellers, or MVNOs.
57. Eastlink and Videotron submitted that since the objective of preventing resale of the incumbents' networks would already be accomplished by resale prohibitions, permanent roaming restrictions are not necessary. However, they also submitted that if any permanent roaming restrictions are included, such restrictions should be designed to minimize as much as possible the effect on end-users who are legitimately roaming for an extended period, and should not impose onerous administrative burdens on wholesale roaming customers.
58. Eastlink submitted that three scenarios that could result in a wholesale roaming customer's end-users permanently roaming on an incumbent's network should be considered.
59. The first scenario involves wholesale roaming customers that may deliberately misuse or abuse wholesale roaming to resell the incumbents' service outside their home network footprint. Eastlink submitted that resale prohibitions are all that is required to prevent MVNOs or regional facilities-based wireless service providers from selling wireless services in these ways.
60. The second scenario involves end-users who purchase a lower-priced service not yet offered in their area by, for example, deliberately providing misleading information at the time of service registration. Eastlink submitted that this type of behaviour is rare and that wholesale roaming customers have sufficient incentive to address such behaviour by their own end-users without the proposed restrictions.
61. The third scenario involves end-users who select an appropriate wholesale roaming customer as a service provider but then roam outside the home network footprint for legitimate reasons (e.g. study, work, or a family emergency) on temporary, but protracted, bases. Eastlink submitted that Canadian consumers should not be precluded from taking advantage of the lower prices and faster networks that may be available from regional wireless service providers simply because they may need to travel outside their home network footprint on an extended basis from time to time.

62. CNOC, Ice Wireless, and WIND also submitted that permanent roaming restrictions are unnecessary. Ice Wireless and WIND indicated that wholesale roaming customers have a market-based incentive to reduce permanent roaming by their end-users as much as possible due to the high cost of domestic roaming. CNOC submitted that permanent roaming restrictions would harm small wireless carriers that have limited network coverage.
63. In response to interrogatories from Commission staff, parties proposed models under which permanent roaming could be defined and monitored. RCCI proposed an approach whereby it would monitor the roaming of individual end-users of the wholesale roaming customer. WIND proposed a high-level approach based on the wholesale roaming customer's total roaming usage on the visited network divided by the total customer usage on the home network plus the visited network.
64. Bell Mobility and TCC opposed WIND's proposal on the basis that it had nothing to do with the permanent roaming that it is meant to address.
65. Bell Mobility, Eastlink, TCC, and Videotron proposed that permanent roaming restrictions be applied based on the total traffic of a wholesale roaming customer, which would allow some end-users to access an incumbent's network on a non-incident basis over a temporary period of time. These proposals were based on defining a threshold whereby permanent roaming by a given wholesale roaming customer's individual end-users would be allowed, to the extent that the aggregated roaming amount by all the end-users in any given month does not exceed a certain threshold of overall roaming traffic for that wholesale roaming customer.
66. CNOC, Ice Wireless, RCCI, Vaxination, and WIND opposed the threshold proposals. Vaxination submitted the incumbents are requesting *ex ante* rules that are hard to regulate, and that *ex post* analysis on a case-by-case basis might be more appropriate. WIND submitted that the additional monitoring that would be required is unnecessary and would be extremely costly to implement. Similarly, Ice Wireless submitted that the proposals were inconsistent with the Policy Direction.<sup>8</sup>
67. RCCI submitted that a threshold approach is unnecessary since the purpose of permanent roaming restrictions is to stop widespread roaming abuse, not individual roamers while they deal with an out-of-town emergency, for example. Bell Mobility replied that the proposed restrictions are reasonable and mitigate the potential for abuse and needless back and forth between carriers.

#### **Commission's analysis and determinations**

68. With respect to Eastlink's first scenario described above, the Commission has directed the incumbents to make explicit in their tariffs that wholesale roaming

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<sup>8</sup> *Order Issuing a Direction to the CRTC on Implementing the Canadian Telecommunications Policy Objectives*, P.C. 2006-1534, 14 December 2006

provides incidental access to the incumbent's network. If a wholesale roaming customer provides its end-users with roaming service on the incumbent's networks in accordance with this definition, it is not deliberately reselling permanent access to the service outside its home network footprint.

69. The record of the proceeding does not support the conclusion that Eastlink's second scenario constitutes a serious concern to the integrity of the mandated wholesale roaming regime. Further, it would be in the wholesale roaming customer's best interest to verify that its end-users are using roaming service legitimately. Given that the wholesale roaming customer must pay the incumbent for roaming by its end-users, the wholesale roaming customer has incentive to monitor their roaming usage, and to detect and prevent this type of behaviour.
70. Some legitimate permanent roaming, as described in the third scenario, should be permitted as a consumer- and competition-friendly practice. The incumbents' tariffs should not target or prevent end-users from temporarily roaming outside their home carrier's network footprint for legitimate reasons.
71. RCCI's proposal that permanent roaming be defined on an end-user basis presents multiple problems. For example, it does not target the problem that permanent roaming restrictions are meant to address – that is, the misuse of wholesale roaming by the wholesale roaming customer (i.e. resale).
72. WIND's proposed formula based on total traffic generated by the wholesale roaming customer does not specifically address traffic generated by permanent roaming. In addition, WIND did not provide any evidence to support its proposed roaming traffic limit.
73. With regard to the threshold proposals that would allow for a certain amount of permanent roaming, certain problems could arise:
  - end-users who simply access the visited network even once a day could be identified as permanently roaming;
  - the wholesale roaming customer would need to incur costs to monitor and identify permanently roaming end-users and develop a tracking system to track individual end-user roaming;
  - there is a lack of solid quantitative evidence to justify choosing one specific enforcement threshold over another;
  - setting the threshold too low could have a negative effect on end-users since the wholesale roaming customer may need to limit the number of end-users who permanently roam for legitimate reasons to stay under the threshold; and
  - setting the threshold too high could inadvertently allow, to an inappropriate extent, the very abuse that incumbents should be permitted to protect against (i.e. the resale of permanent access to their networks).

74. In light of the above, implementing an *ex ante* approach that sets out a specific threshold in the tariffs could be counter-productive. Further, given the confirmation in this decision that mandated wholesale roaming provides incidental access, and not permanent access, to an incumbent's network, and the clarification of the MVNO subscriber roaming condition, the possibility of a wholesale roaming customer or an MVNO being able to resell permanent access to an incumbent's network should be greatly reduced.
75. Accordingly, the Commission determines that permanent roaming restrictions are not required in the incumbents' tariffs. The Commission therefore **directs**
- the incumbents to remove the proposed restrictions related to permanent roaming from their tariffs; and
  - Bell Mobility and TCC to remove from their tariffs the proposed clauses requesting that wholesale roaming customers provide a corporate certificate attesting that they have complied with permanent roaming conditions.

## **Conclusion**

76. As determined above, it would not be appropriate for the incumbents to include any of the proposed restrictions in their tariffs. However, the principles behind these restrictions could nonetheless be helpful as indicators of whether a wholesale roaming customer has allowed the incumbent's network to be accessed on a permanent basis.
77. If disputes arise between the incumbents and their wholesale roaming customers with respect to whether roaming is surpassing an acceptable level, these parties may request that the Commission determine whether a wholesale roaming customer is making improper use of the service, or has permitted an MVNO to do so.
78. The Commission may use some or all of the following indicators to help it determine whether the wholesale roaming customer has misused or allowed its MVNO to misuse the service, depending on the particular facts of the case:
- it has deliberately issued phone numbers from exchanges outside its home network footprint to its end-users;
  - it has sold or marketed its services outside its home network footprint;
  - it has sold or marketed its services in a manner that would result in its end-users gaining permanent access to the incumbent's network;
  - it has provided its end-users with a device that has for its sole or predominant purpose permitting them to gain permanent access to the incumbent's network; and



- it has otherwise failed to take commercially reasonable steps to limit roaming on the incumbent's network by its end-users to incidental levels that are within the scope of the service. In considering this factor, the Commission may take into account evidence of broad traffic patterns and network use trends concerning a significant proportion of wholesale roaming customer or MVNO end-users.

### **Should prohibitions on in-footprint roaming and traffic offloading be included in the final tariffs?**

79. In-footprint roaming occurs when a wireless carrier's retail customers roam on another carrier's network while they are within their home carrier's network footprint. Traffic offloading occurs when a wholesale roaming customer uses GSM-based roaming to move end-user traffic to the incumbent's network even when the wholesale roaming customer's network is in the geographic area.

### **Positions of parties**

80. The incumbents included prohibitions on in-footprint roaming and traffic offloading in their proposed tariffs.
81. Bell Mobility's definition of roaming service states that the company does not permit roaming on its network by a wholesale roaming customer's end-users in areas covered by the wholesale roaming customer's own network. It also proposed that the wholesale roaming customer not be permitted to offload traffic in areas where both it and Bell Mobility have operating public mobile networks.
82. TCC proposed that tariffed rates for roaming would apply in its network footprint (i) in areas where a wireless carrier does not have spectrum, or (ii) in areas where a wireless carrier has spectrum, but has not yet deployed the spectrum. The company proposed that commercially negotiated rates would apply in areas within its available footprint not covered by (i) or (ii). It proposed that the wholesale roaming customer should strive to avoid any capacity offloading in areas where the customer and TCC have networks. It also proposed consequences for ongoing offloading issues.
83. RCCI's proposed tariff specifies that roaming service is available to the wholesale roaming customer's end-users when they travel outside their carrier's footprint.
84. Several parties opposed the proposed prohibitions and argued that they should be removed from the final tariffs.
85. WIND submitted that Bell Mobility's proposed prohibition on in-footprint roaming does not fully account for the fact that there is no solid boundary that defines a wireless network. It also submitted that available technologies for blocking roaming are coarse at best and that in-footprint roaming cannot be prevented with absolute certainty.

86. In WIND's view, the wholesale roaming provider should be required to provide the appropriate data to WIND so that WIND can avoid in-footprint roaming by its end-users. It proposed that there be consequences to the host carrier for delayed or inaccurate information and a mandatory requirement that the host carrier implement any requested location area code (LAC) blocking on a timely basis.
87. WIND also proposed that wireless carriers seeking access to wholesale roaming be required to adopt measures to minimize in-footprint roaming through settings in the network priority list in end-users' mobile devices. It recommended that the proposed restrictions in Bell Mobility's and TCC's tariffs concerning traffic offloading be removed and that, instead, a network priority list be created in end-users' mobile devices to limit in-footprint roaming.
88. CNOC submitted that the proposed restrictions unreasonably limit access to roaming in areas where a wireless carrier has deployed spectrum or network facilities but where coverage gaps remain. In its view, the restrictions provide Bell Mobility and TCC with unilateral power to determine whether a wireless carrier has or has not deployed spectrum, or has covered an area.
89. Eastlink submitted that the proposed definitions of roaming and geographic limits contravene ISED's roaming conditions of licence, the intention of the wholesale wireless framework, and the operational realities of roaming.
90. Eastlink also submitted that RCCI's proposed provision would dictate that roaming end-users can only roam outside the wholesale roaming customer's network footprint, which is defined as areas where wholesale roaming customers have contiguous towers. It submitted there are many coverage gaps within areas where the wholesale roaming customer has built a contiguous set of telecommunications antennas and that wholesale roaming customers require access to wholesale roaming within these coverage gaps until they are able to fill them.
91. Eastlink further submitted that ISED's roaming conditions of licence do not differentiate between roaming within and outside a wholesale roaming customer's network footprint, and that TCC's proposal to charge a different rate inside the footprint would contravene the wholesale wireless framework.
92. Videotron submitted that the incumbents' proposed restrictions hold great potential to impose onerous and unreasonable operational constraints on new entrants.
93. In Videotron's view, there will inevitably be numerous localized situations in which a carrier's network signal is unavailable to its end-users, despite the availability of signals from one or more of its competitors. These situations include antenna placement and topography, the propagation characteristics of the network's frequency bands, and the presence of vegetation. The lack of signal may also result from local land use authorities refusing to authorize the placement of a new antenna by the network operator.

94. Videotron referred to the first version of ISED's roaming conditions of licence, published in 2008,<sup>9</sup> which restricted the availability of roaming to end-users out of range of their carrier's home network. In Videotron's view this restriction was prone to abuse by the incumbents and overly complicated to operationalize. Videotron suggested that it was these difficulties that led ISED to remove the restriction in its *Revised Frameworks for Mandatory Roaming and Antenna Tower and Site Sharing* (ISED's revised mandatory roaming framework).<sup>10</sup>
95. Videotron argued that the incumbents' proposals create an opportunity for mischief on their part in the present context as well, specifically by being able to continually threaten to withdraw essential roaming services from new entrants for lack of compliance with the proposed restriction.
96. RCCI replied that it offers roaming across its entire public mobile network, as required under ISED's revised mandatory roaming framework. RCCI added that Eastlink was incorrect when it submitted that RCCI's tariff contravenes ISED's roaming conditions of licence and the intention of the wholesale wireless framework because it did not believe that RCCI would provide roaming in these coverage gaps in the wholesale roaming customers' networks.
97. Regarding the geographic restrictions on roaming, TCC replied that its definition, based on the Commission's definition of roaming, serves to limit roaming only to those areas where the wholesale roaming customer does not have direct network coverage. It submitted that its proposed geographic restrictions are consistent with the Commission's statement that wholesale roaming enables wireless carriers to (i) provide coverage in areas where they do not have spectrum, and (ii) fill in coverage gaps in areas where they do have spectrum, but have not deployed network facilities.
98. TCC opposed Videotron's interpretation that under ISED's regime, "in-territory" is where a wholesale roaming customer holds spectrum licences and "out-of-territory" is where it does not. Further, TCC submitted that Videotron had confused the Commission's and ISED's regimes, and that ISED's removal of the in-territory/out-of-territory distinction has no bearing under the Commission's GSM-based wholesale roaming tariff framework.
99. TCC also submitted that its proposed geographic limitations are consistent with the Commission's determinations in the wholesale wireless framework, meaning that ISED's revised mandatory roaming framework has no effect.
100. Bell Mobility submitted that its roaming definition is fully consistent with the Commission's definition in the wholesale wireless framework and that there is no

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<sup>9</sup> See *Conditions of Licence for Mandatory Roaming and Antenna Tower and Site Sharing and to Prohibit Exclusive Site Arrangements* (CPC-2-0-17, November 2008).

<sup>10</sup> See paragraph 33 of the framework.

inconsistency between the Commission's definition of GSM-based wholesale roaming and ISED's definition. In its view, the Commission's definition means that the wholesale roaming that is mandated pursuant to Commission-approved rates, terms, and conditions excludes areas that fall within the requesting wireless carrier's network footprint.

101. Bell Mobility submitted that while it appreciates WIND's commitment to ensure that its end-users' devices would default to WIND's network, unforeseen circumstances could necessitate the prohibition of traffic offloading. Bell Mobility cited the example of an extreme situation in which the network of the wholesale roaming customer might become overloaded, disabled, or otherwise not available at all, and all of the roaming end-users' devices would default to the host network. It submitted that this would be an example of inappropriate traffic offloading.

### **Commission's analysis and determinations**

102. ISED's revised mandatory roaming framework states the following: "Roaming must enable a subscriber (a Roamer) already served by the Requesting Operator's network (Home Network) to originate or terminate communications on the Licensee's network (Host Network), wherever technically feasible."
103. In the previous version of this framework, ISED indicated that roaming applied when an end-user was out of range of the home network. However, it later excluded the geographic specifications (in-territory and out-of-territory) to reflect the expanded scope of mandatory roaming that would apply to wireless carriers across all their licensed service areas. ISED indicated that while this change increased the possible scope of the condition, it was in the licensees' best interest to minimize their customers' roaming traffic.
104. There is no solid and stable boundary to a wireless network, and coverage gaps are inherent to the nature of mobile wireless services. As the Commission found in the wholesale wireless framework, the incumbents already hold market power in the wholesale roaming market and the barriers to entry are high. Moreover, it takes significant time for smaller wireless carriers to expand their facilities and fill coverage gaps. Therefore, given the overlapping nature of public mobile networks, in-footprint roaming and occasional traffic offloading are important to the quality of roaming services.
105. In the wholesale wireless framework, the Commission stated that wholesale roaming enables wireless carriers to (i) provide coverage in areas where they do not have spectrum, and (ii) fill in coverage gaps in areas where they do have spectrum, but have not deployed network facilities. As such, the incumbents' proposed prohibitions on in-territory roaming and traffic offloading contradict the spirit of the framework, as well as its strategic objectives. They also seriously undermine the viability of the roaming service for end-users. However, the proposal for wholesale roaming customers to adopt measures for end-users' mobile devices to minimize

in-footprint roaming would be an appropriate way to reduce the impact on incumbents' networks.

106. In light of all the above, the Commission determines that in-footprint roaming and traffic offloading are appropriate. The Commission therefore **directs** the incumbents to

- remove from their tariffs the proposed restrictions on in-footprint roaming and traffic offloading; and
- add a clause that states that the wholesale roaming customer must take all reasonable steps to ensure that their end-users configure their devices to register on the wholesale roaming customer's network in priority over all other available networks where roaming is permitted, to minimize in-footprint roaming and traffic offloading.

### **What is the appropriate scope of available network provisions?**

#### **Positions of parties**

107. The incumbents proposed that private networks be excluded from their available public mobile network or available network footprint (available network) for wholesale roaming. Bell Mobility proposed that private networks and geographic areas served through satellite backhaul be excluded from its available network.

108. Ice Wireless requested that the incumbents clarify in their tariffs that only the parts of the incumbents' geographic areas that are *exclusively* served by a private network, and in Bell Mobility's case, satellite backhaul, are to be excluded from their available network. RCCI replied that it would revise its tariff to reflect Ice Wireless's concern.

109. Regarding Bell Mobility's proposed exclusion of geographic areas served by satellite backhaul, CNOc submitted that provided an area is served by a GSM network, the manner in which transport is established to the area should not be relevant. It further submitted that no such exclusion was set out in the wholesale wireless framework. CNOc submitted that this restriction is inappropriate and should be removed.

110. Bell Mobility referred to the limited capacity and high costs associated with its ability to provision wireless connectivity to these sparsely populated rural and remote communities. It submitted that providing roaming access to these areas would likely increase traffic volumes, which would almost certainly result in capacity overload, delays, and network outages, and would be highly prejudicial to the end-users living in these communities.

#### **Commission's analysis and determinations**

111. In remote areas where Bell Mobility relies on satellite backhaul, this method represents the most cost-effective mode of transportation. Further, roaming traffic

volume is likely to be limited given the small populations in these areas. Bell Mobility's proposed exclusion would mean that the wholesale roaming customer would not be able to provide service to its end-users visiting these areas. This would lessen the attractiveness of the wholesale roaming customer's service to its end-users who wish to visit these areas and the overall effectiveness of the wholesale roaming customer as a competitive option. Therefore, it would not be appropriate for Bell Mobility to exclude areas served by satellite backhaul from its available network.

112. However, it would be appropriate for the incumbents to exclude from their available networks geographic areas that are *exclusively* served by a private network because, by definition, their large customer bases do not have access to private networks.

113. In light of the above, the Commission **directs**

- the incumbents to revise their definitions of available network to clarify that geographic areas that are exclusively served by a private network are excluded from their available networks; and
- Bell Mobility to revise its definition of available network to remove its proposed exclusion of geographic areas served by satellite backhaul from its available network.

## **What method of network interconnection is appropriate?**

### **Positions of parties**

114. Bell Mobility proposed to implement interconnection with wholesale roaming customers in a mutually agreed-upon manner. RCCI proposed that there would be no direct interconnection for signalling, voice, or data unless both RCCI and the wholesale roaming customer agreed to it in writing. TCC proposed that the technical information relevant for roaming would be exchanged between the parties but did not specify whether the method of interconnection would be direct or indirect.

115. CNOC submitted that the interconnection method can have a significant effect on the wireless carrier's network operations and the cost to access and use wholesale roaming. Consequently, it submitted that interconnection requirements or any other item that has a material impact on the cost of accessing wholesale roaming should be included in the incumbents' tariffs.

116. CNOC submitted that to the extent the incumbents directly interconnect with each other or any other wireless carrier, requiring a wholesale roaming customer to interconnect in a different way – for example, through the use of “clearinghouses” such as Syniverse – that results in significant additional costs would represent an unreasonable disadvantage to the wholesale roaming customer, contrary to subsection 27(2) of the Act.

117. RCCI replied that it would be impossible to provide the required level of detail in a standard document given the unique nature of interconnections between carriers, and that interconnection details are best left to an accompanying off-tariff agreement.
118. Bell Mobility submitted that virtually every GSM-based wireless carrier in the world uses third-party providers for both network signalling interconnection and virtual private networks to route data traffic back to the home network. Further, Bell Mobility stated that CNOC had mischaracterized third-party providers, such as Syniverse, as clearinghouses, when in fact using such providers is the standard method of interconnection.
119. Bell Mobility also submitted that direct interconnection is generally not used by GSM-based wireless carriers because it is more cost-efficient to interconnect with only one third-party provider that then provides connections to all other GSM-based wireless carriers. As a result, it submitted that additional tariff wording specifying the method of interconnection is not required given the ubiquity of the current interconnection standard for roaming.

#### **Commission's analysis and determinations**

120. Cost and efficiency are two factors that are considered in the selection of network interconnection methods. For efficiency, multiple wholesale roaming customers interconnect indirectly to an incumbent via a third party with which the incumbent maintains a single interconnection channel, which also minimizes the incumbent's interconnection and maintenance costs. Direct interconnection with each wholesale roaming customer would multiply the incumbents' interconnection and maintenance costs by the number of wholesale customers, which is not justified by traffic volumes. If direct interconnection were mandated, the higher aggregate costs would have to be passed on to wholesale roaming customers and, ultimately, to end-users.
121. If the incumbents were directly interconnecting with each other but not providing a direct interconnection option to other wholesale roaming customers of similar scale, this may indicate preferential treatment. However, there is no evidence in this proceeding to conclude that this treatment would be discriminatory, undue, or unreasonable pursuant to subsection 27(2) of the Act.
122. Should off-tariff agreements continue to be acceptable, any wholesale roaming customer that generates a sufficiently high level of traffic to make direct interconnection economically viable would likely have more negotiating power with the incumbents, and would therefore be able to negotiate an appropriate off-tariff agreement with an incumbent. Accordingly, it would be reasonable to include indirect interconnection in the incumbents' tariffs as a backstop to ensure that wholesale roaming customers that do not have a high level of negotiating power will be able to access wholesale roaming at an appropriate rate – that is, one that is lower than they would otherwise be able to negotiate themselves.

123. The tariffed rate for wholesale roaming should include all the necessary costs for the wholesale roaming customer to interconnect with the incumbent on an indirect basis. No additional costs or fees should be required. Further, the tariffs must set out at a base level what functionality is included.

124. In light of the above, the Commission determines that mandated wholesale roaming is to be provided using indirect interconnection.

125. The Commission therefore **directs** the incumbents to

- modify their tariffs as necessary to implement this determination, and
- specify in their tariffs what is included in the interconnection portion of mandated wholesale roaming service.

### **How should network changes be dealt with?**

#### **Positions of parties**

126. The incumbents proposed wording in their respective tariffs to cover changes to their networks that are made to implement new, or amend existing, network functionalities. They also proposed various notification periods.

127. Bell Mobility and RCCI proposed to use commercially reasonable efforts to give wholesale roaming customers at least 30 days' written notice of any change. RCCI also proposed that it be permitted to "turn down" a level of service that it also turns down for its own customers, provided that it uses commercially reasonable efforts to give 30 days' notice of the change.

128. TCC proposed language indicating that it may make changes to wholesale roaming from time to time by, among other things, adding, removing, replacing, or modifying the service, provided that the same changes apply to equivalent services provided by TCC to its own customers. TCC proposed to use commercially reasonable efforts to provide wholesale roaming customers with 90 days' written notice prior to implementing a change.

129. Both Bell Mobility and TCC proposed a change process whereby the incumbent and wholesale roaming customers would discuss the effects of any changes on the wholesale roaming customers, and the necessary actions to be performed.

130. Videotron and WIND submitted that network changes should be subject to six months' notice, consistent with the determinations set out in Telecom Letter Decision 94-11. Videotron submitted that changes to wholesale roaming can have a substantial effect on wholesale roaming customers and their relationships with their end-users, while WIND argued that there is no public policy reason why the proposed shorter notice time frames would be acceptable for material changes that affect wholesale roaming.



131. Eastlink submitted that there is no reason why Bell Mobility and RCCI could not use commercially reasonable efforts to provide 90 days' notice of major changes to their networks. It also expressed concern about the lack of specific language ensuring that changes made by the incumbents do not prejudice wholesale roaming customers. Eastlink further submitted that the provisions in the incumbents' tariffs regarding network changes are inconsistent with ISED's roaming conditions of licence and their existing domestic roaming agreements and that, therefore, these provisions should be updated to include language clarifying that changes can be made only in specific situations.
132. Bell Mobility submitted that in the same way that 60 days is sufficient time to provide traffic forecasts, 60 days is sufficient time to respond to notice of network changes.
133. TCC submitted that Telecom Letter Decision 94-11 applied to wireline services and that in that decision, the Commission had acknowledged that some changes occur with less than six months' notice. TCC also submitted that WIND had acknowledged the current reality when it stated that LAC boundary changes only require 90 days' notice so that LAC blocking could be reassessed by the wholesale roaming customer. It also submitted that 90 days is a generally acceptable notification standard in many commercial contracts that have been agreed to since Telecom Letter Decision 94-11 was issued.
134. RCCI replied that the Commission's requirement for a minimum of six months' notice in the wireline context was based on finding a balance between providing a reasonable notification period that would avoid disputes and ensuring that the introduction of innovative services would not be delayed. It submitted that the pace of innovation in the modern mobile wireless domain is significantly faster than it was over 20 years ago in the wireline voice domain. It submitted, therefore, that a six-month notification period would be far too long.

### **Commission's analysis and determinations**

135. For technical reasons, changes to networks are inherent to the nature of network-based services. However, the associated terms and conditions should not allow the incumbents to use the necessity of those changes to the competitive disadvantage of their wholesale roaming customers and the general disadvantage of end-users.
136. The incumbents proposed wording that would appear to allow them to make, in addition to network changes, changes to mandated wholesale roaming. While it is acceptable, as a network management practice, for the incumbents to make changes to their networks that might have temporary and indiscriminate effects on roaming services provided to end-users using their networks, it should be clear in the tariffs that the incumbents should not make network changes that affect the roaming services set out in the terms and conditions of the tariff without Commission approval.

137. While there might be situations in which the need to make network changes can arise on short notice, many network changes are planned and are reasonably predictable. In these cases, sufficient notice should be given to wholesale roaming customers to enable them to make any required adjustments in a timely manner.

138. The industry has changed significantly since 1994, and a six-month notification period might be excessive in the context of today's dynamic industry. However, for many types of changes, 30 days' notice could also prove to be too short and provide insufficient time for wholesale roaming customers to react to the changes, to the detriment of end-users. Therefore, 90 days' notice, where possible using commercially reasonable efforts, would be appropriate.

139. Further, the opportunity to discuss and properly manage the effects of changes is important to the quality of roaming services provided to end-users. Accordingly, it would be appropriate for RCCI to include in its tariff a provision to this effect, similar to the ones proposed by Bell Mobility and TCC.

140. Network changes should not create competitive disadvantages for wholesale roaming customers, and language should be included in the tariffs to protect against such a result. Specifically, incumbents should be prohibited from implementing network changes that would result in unjust discrimination against wholesale roaming customers and their end-users, or that would confer an undue preference on the incumbents or their end-users.

141. In light of the above, the Commission **directs** the incumbents to

- reword their tariffs to limit the scope of acceptable potential changes to include network changes only, and not to include modifications to the Commission-mandated wholesale roaming service;
- add a provision to their tariffs stating that network changes that can be made unilaterally are limited to those that affect all end-users in a similar manner, irrespective of their wireless carrier, to prevent unjust discrimination; and
- modify the tariff clauses related to network changes to indicate that the incumbents must make all commercially reasonable efforts to provide wholesale roaming customers with 90 days' notice of the changes.

142. The Commission also **directs** RCCI to include a provision in its tariff stating that RCCI and the wholesale roaming customer shall discuss the effect of any network change on the customer's end-users and shall agree to the necessary actions to be performed.

## What quality of service provisions are appropriate?

### Positions of parties

143. In item 100.5(a) of its tariff, Bell Mobility proposed wording such that it would not be obligated to offer or provide a quality, functionality, technology, service, or level of service in excess of the lesser of that (a) generally offered by the wholesale roaming customer to its own end-users on its public mobile network, or (b) offered by Bell Mobility to its own end-users on its available public mobile network.
144. RCCI and TCC proposed that the wholesale roaming customer's end-users have access to voice and data services at a level of quality comparable to that which they offer their own end-users for similar services. TCC clarified that it would not be required to provide the wholesale roaming customer's end-users with a service that the customer does not itself provide.
145. Bell Mobility and RCCI proposed to include a disclaimer that services would be provided on an as is/as available basis, and that they would not guarantee or warrant the performance, availability, coverage, uninterrupted use, security, or operation of the services. They also proposed to indicate that the services could be temporarily refused, interrupted, or limited at any time due to certain limitations.
146. RCCI also proposed that it should not be obligated to offer data transmission speeds in excess of the lesser of those that it generally offers its own end-users or those that the wholesale roaming customer generally offers its own end-users (in both cases, RCCI excluded data transmission speeds offered separately at a premium rate or for a surcharge).
147. In Videotron's view, Bell Mobility's wording in item 100.5(a) would permit it to lessen the quality of service offered to a wholesale roaming customer based on its unilateral and subjective assessment of the quality of that customer's own retail services. Videotron also submitted that if Bell Mobility's proposed wording were to be approved, the quality of service limit should be defined only in terms of the different levels of GSM technology – for instance, an incumbent should not be obligated to provide a wholesale roaming customer with long-term evolution (LTE) services if the customer only provides third-generation (3G) service to its own end-users.
148. Similarly, WIND submitted that Bell Mobility's proposed wording in item 100.5(a) would potentially allow it to provide a lesser quality of service to roaming WIND end-users compared to Bell Mobility's end-users, assuming all other factors are the same – for example, that both companies' end-users are using the Bell Mobility network's 3G capabilities.
149. Eastlink and Ice Wireless submitted that Bell Mobility's tariff item 100.7 regarding limitations on roaming places unacceptable conditions on the quality of service offered, and that it should be modified. Ice Wireless submitted that the service limitations described in this item broadly exclude all warranties of performance,

availability, coverage, uninterrupted use, security, and operation of services, in direct conflict with the warranties Bell Mobility provides under item 100.5(a) regarding quality, functionality, and level of service.

150. Eastlink, Videotron, and WIND submitted that RCCI should not be permitted to exclude premium quality data transmission services from its obligations to provide roaming. Eastlink submitted that ISED's roaming conditions of licence do not allow the incumbents (or any roaming service provider) to make only certain priced services available to wholesale roaming customers and to either withhold other speeds or make them subject to other limitations.

151. Bell Mobility and RCCI replied that their proposed provisions reflect language used in ISED's roaming conditions of licence.

### **Commission's analysis and determinations**

152. As a general matter, it would be appropriate for each of the incumbents to include a single quality of service provision in their wholesale roaming tariffs, rather than the current multiple provisions,<sup>11</sup> for greater clarity and to avoid confusion. These provisions should not be included in the Definitions section of the tariffs.

153. Further, it is important that the quality of service provisions avoid wording that could allow for anti-competitive behaviour in that the incumbents could provide a lesser quality of service for their competitors' end-users.

154. The following specific revisions should be taken into account in the incumbents' revised provisions.

155. Bell Mobility's proposed wording in item 100.5(a) is reasonable. The incumbents should not be required to meet a standard for wholesale roaming customers beyond what the incumbents offer their own end-users or beyond what the wholesale roaming customers provide to their own end-users. Such a requirement would be inconsistent with one of the three objectives the Commission set out in the wholesale wireless framework: to implement efficient regulatory measures with respect to wholesale mobile wireless services, along with continued reliance on market forces where appropriate.

156. For example, if a wholesale roaming customer offers only 3G service on its network and its end-users have only 3G service when roaming on Bell Mobility's LTE network, this should not be not considered anti-competitive because the end-user is getting the level of service to which they have subscribed and that they receive on their home network. This approach is consistent with relying on market forces and encouraging the development of facilities-based competition.

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<sup>11</sup> That is, in current items 100.5(a) and 100.7 for Bell Mobility, items 1.27, 4.1.3, and 5.4.1 for RCCI, and items 233.2 and 233.3.2 for TCC.

157. Bell Mobility's proposed wording is also consistent with the wording in ISED's roaming conditions of licence.

158. It is also reasonable for the incumbents to specify any potential service limitations on their roaming services due to issues such as congestion, atmospheric or topographical conditions, or equipment modifications, as Bell Mobility and RCCI have proposed. However, if such issues should arise, the incumbent in question should provide the service to its wholesale roaming customers to the same extent that it provides roaming service to its own end-users. As a result, it would be appropriate for Bell Mobility to add language reflecting this, similar to the wording that RCCI has proposed.

159. With regard to RCCI's proposal to exclude data transmission speeds from the level of service provided, while wholesale roaming services are not currently distinguished by data transmission speeds, the exclusion could create an opportunity for anti-competitive behaviour if the incumbents differentiate speed in the future – that is, RCCI could have the flexibility to provide a lower quality of service to wholesale roaming customers than it provides to its own end-users if certain data transmission speeds are excluded. As a result, RCCI should delete this exclusion from its proposed provision.

160. In light of the above, the Commission **directs**

- the incumbents to include a single quality of service provision in their tariffs located outside the Definitions section;
- the incumbents to ensure that this provision includes language consistent with the following: “provided that the Services shall provide a Roaming Customer with the ability to access voice and data services at a level of quality comparable to that offered for similar services to the Company's own customers”; and
- RCCI to delete from its proposed tariff the clause regarding the exclusion of data transmission speeds.

161. In addition, the Commission **directs** Bell Mobility and TCC to add the word “generally” before “offered” in current items 100.5(a)(1)b. and 233.3.2.a of their respective tariffs.

### **Should wholesale roaming customers be mandated to provide traffic forecasts and, if so, how often?**

#### **Positions of parties**

162. Traffic forecasts provide estimated volumes of roaming services that a wholesale roaming customer is likely to need to serve its end-users for a defined period of time. The incumbents submitted that they require traffic forecasts for network planning purposes.

163. Bell Mobility proposed that its wholesale roaming customers provide it with non-binding forecasts of their expected volume of roaming traffic on Bell Mobility's available public mobile network, by province and territory, for the following 12-month period. It indicated that the forecasts should be submitted at least 60 days prior to the beginning of an annual calendar period. Bell Mobility also proposed that whenever a wholesale roaming customer expected a substantial increase in the number of roaming end-users and/or roaming traffic in any calendar quarter, it provide Bell Mobility with a revised forecast for that quarter, at least 30 days before the expected increase.
164. RCCI proposed that wholesale roaming customers provide once a year, at least 30 days prior to the customer's service commencement and at least 30 days prior to the beginning of each subsequent year, a good faith estimate of the aggregate volume of services to be used by roaming end-users during each three-month period of the year. Further, it proposed that if the wholesale roaming customer expected a substantial increase in the number of roaming end-users or use of RCCI's services in any calendar quarter, the customer would provide RCCI with a revised forecast for that quarter at least 30 days in advance.
165. TCC proposed that wholesale roaming customers be required to provide best-effort forecasts for three years two weeks after the request for wholesale roaming and at the beginning of each calendar year.
166. Videotron submitted that TCC's proposed three-year forecast is unlikely to be useful in practice and that it should be reduced to one year.
167. Ice Wireless requested that, to reduce administrative burden, the proposed traffic forecast conditions be modified so that the wholesale roaming customer is required to provide roaming traffic forecasts upon 60 days' written notice and no more than once per 12-month period.
168. Bell Mobility replied that its proposed provisions would provide for reasonable notice regarding any roaming changes.
169. RCCI replied that it relies on traffic forecasts to provide sufficient bandwidth and other resources to the appropriate parts of its network. In its view, doubling the notification period, as requested by Ice Wireless, would not improve RCCI's or its wholesale roaming customers' end-users' experience since forecasts made closer to the applicable period would be more accurate.
170. TCC replied that its three-year forecast is required for long-term network planning and to ensure that there is sufficient capacity to handle the on-boarding of numerous wholesale roaming customers. It also submitted that Videotron had not provided any justification for its claim that the three-year period for traffic forecasts is too long to be useful.

## **Commission's analysis and determinations**

171. While complying with the various proposed requirements for traffic forecasts may create extra administrative burden for wholesale roaming customers, forecasts are necessary for planning purposes.
172. The incumbents described the forecasts using terms such as “non-binding,” “in good faith,” and “best effort.” These terms may be interpreted to mean that wholesale roaming customers are not prohibited from exceeding the forecasted traffic amount.
173. Given the dynamic nature of the industry, a three-year forecast, as proposed by TCC, is unlikely to be accurate enough to provide useful information. As a result, a shorter forecast period would be more appropriate. A one-year period would balance the administrative burden on wholesale roaming customers with the incumbents' network-planning needs.
174. In light of the above, the Commission finds Bell Mobility's and RCCI's proposed traffic forecast provisions to be reasonable. The Commission **directs** TCC to modify its proposed tariff provision to require a one-year forecast.

## **Should automatic hand-off / seamless roaming provisions be included in the incumbents' tariffs?**

175. When an end-user is roaming and moves across the network footprints of different wireless carriers, a call or a data session may be dropped. Automatic hand-off, also known as seamless roaming, across networks prevents such interruptions.
176. In the wholesale wireless framework, the Commission determined that the incumbents would not be required to provide wholesale roaming on a seamless basis.

## **Positions of parties**

177. Each of the incumbents proposed tariff provisions that indicate that automatic hand-off is not available to wholesale roaming customers.
178. Videotron submitted that there is no rationale for excluding the possibility of negotiating automatic hand-off, which provides benefits to consumers, and that the proposed tariffs should allow for this possibility.
179. Eastlink submitted that since the tariffs are intended to state the terms, conditions, and rates associated with services to be provided, there is no need to specify in the tariff all the services that are not provided. It submitted, therefore, that all provisions related to automatic hand-off should be removed from the tariffs.
180. Eastlink also submitted that, since all three incumbents provide automatic hand-off within Canada to their own end-users, it is entirely inappropriate that they do not make it available, even on a limited basis, to their wholesale roaming customers.

## **Commission's analysis and determinations**

181. The proposed tariff provisions appropriately reflect the Commission's policy determination but are not required in the tariff. Accordingly, the Commission **directs** the incumbents to remove the provisions at issue from their tariffs.
182. The Commission confirms that while the incumbents are not mandated to provide automatic hand-off, wholesale roaming customers may obtain this forborne service on a negotiated basis as an add-on or a separate service.

## **Should call hand-back provisions be included in the incumbents' tariffs?**

183. When an end-user is roaming on an incumbent's network, long distance calls are made/received on the incumbent's network. There are two options for handling a roaming end-user's long distance calls: (i) the incumbent can directly route the call and charge the wholesale roaming customer, at forborne rates, for calls made by the roaming end-user; or (ii) a technical solution known as call hand-back can be used to automatically route the call from the incumbent's network to the home network.
184. In the wholesale wireless framework, the Commission determined that the incumbents would not be required to provide call hand-back as part of mandated wholesale roaming.

## **Positions of parties**

185. Bell Mobility's proposed terms and conditions state that the company will route and handle originating long distance calls made by the wholesale roaming customer's end-users while they are roaming on Bell Mobility's network. In addition, Bell Mobility proposed that the wholesale roaming customer may, at its discretion, implement alternative routing of long distance calls, as long as this does not require the involvement of Bell Mobility.
186. Similarly, RCCI proposed that it would route, handle, and charge wholesale roaming customers for long distance calls made by their end-users while they are roaming on RCCI's network.
187. TCC proposed that its wholesale roaming customers would pay all charges incurred for services provided through any connections furnished to them, including long distance calls, and that call hand-back is not available under its tariff.
188. Videotron referred to the constructive nature of Bell Mobility's proposal to allow wholesale roaming customers to implement alternative solutions for the routing of long distance calls that do not involve cost implications for Bell Mobility. Consequently, Videotron requested that the Commission direct the other two incumbents to include such language in their tariffs to ensure that wholesale roaming customers have the flexibility to implement alternative routing for long distance calls at their discretion.



## **Commission's analysis and determinations**

189. Since it is not part of mandated wholesale roaming, long distance call routing to the incumbents' networks is a separate service, and nothing prevents the incumbents from providing a call hand-back service on a forborne basis as an add-on to the mandated service, with rates, terms, and conditions agreed to by the parties involved.
190. Accordingly, it is not necessary for the incumbents to include provisions related to call hand-back in their tariffs. The Commission therefore **directs** the incumbents to remove these provisions.

## **Should the Commission make changes to other sections of the tariffs?**

### **Should wholesale roaming customers be required to pay a deposit and, if so, what should the amount be?**

#### **Positions of parties**

191. Bell Mobility's proposed terms and TCC's Terms of Service state, among other things, that deposits may be required under three conditions related to the customer's lack of credit history, poor credit rating, or abnormal risk of loss. They also specify interest rates and details about how interest would be calculated and paid. Bell Mobility proposed that the total amount of the deposits not exceed three months' worth of charges for all services provided under the tariff item based on its reasonable estimates, while TCC's Terms of Service state that TCC must not require a customer to pay a deposit or provide a deposit alternative in an amount greater than all anticipated charges, including long distance charges, for three months of service.
192. RCCI proposed a security deposit provision that would require wholesale roaming customers to provide it with an irrevocable letter of credit for \$250,000 from one of the top five Schedule I Canadian Banks, at least 30 days before the provision of wholesale roaming begins. Upon RCCI's request, the wholesale roaming customer would be obligated to increase the amount of the security deposit or replace the letter of credit so that the amount is equal to the previous three months' worth of charges it has incurred.
193. Eastlink, Ice Wireless, and WIND submitted that RCCI's requirement for a letter of credit or deposit of \$250,000 was unacceptable.
194. Ice Wireless submitted that RCCI's requirement could represent a daunting barrier for smaller providers and requested that RCCI modify its proposed form of security to three months' worth of charges for all services provided under the wholesale roaming tariff.
195. Eastlink submitted that because wholesale roaming is available only to established facilities-based providers with significant investments in their wireless business, deposit requirements are unnecessary. It submitted that if the Commission were to

allow the incumbents to require a deposit, Bell Mobility's proposed wording would be more reasonable than RCCI's.

196. WIND submitted that there is no reasonable basis for the Commission to approve a roaming-specific security deposit requirement that differs from the standard security deposit requirements in other mandated wholesale service tariffs. In its view, the wholesale roaming tariff should include standard deposit language comparable to that in the Commission's competitive local exchange carrier (CLEC) Model Tariff.
197. RCCI replied that there is much greater risk for a new entrant carrier with a regional network footprint to quickly accumulate large debts with wireless roaming services than in the wireline CLEC domain. RCCI submitted that while it may be true that a current or potential wholesale roaming customer would own valuable assets, there was no guarantee that RCCI would receive the funds necessary to settle an outstanding account in the event of a bankruptcy, and that the security deposit terms and conditions were therefore necessary.

#### **Commission's analysis and determinations**

198. RCCI's Access Services Tariff includes provisions for deposits and alternatives that are based on wording in the CLEC Model Tariff and generally align with those proposed by Bell Mobility and those included in TCC's Terms of Service. RCCI's circumstances as an incumbent are not sufficiently different from those of Bell Mobility or TCC, or wireline CLECs in general, to require an approach for wholesale roaming deposit terms that is different from what is already included in its Access Services Tariff. In addition, Bell Mobility's proposed provision, TCC's Terms of Service, and RCCI's existing Access Services Tariff provision would allow greater flexibility than RCCI's proposed wholesale roaming provision, especially in the case of new or smaller providers.
199. As a result, RCCI's proposed security provision should be deleted. It would be appropriate for the company to reflect in its wholesale roaming tariff the language from the deposit provision in its Access Services Tariff.
200. Bell Mobility's proposed wording includes many elements of the CLEC Model Tariff deposit provision. In both cases, a deposit is required only under certain circumstances and is limited to three months' worth of charges for all services provided under the tariff.
201. However, Bell Mobility's text is missing certain elements that the Commission has previously approved and that are contained in RCCI's Access Services Tariff, the CLEC Model Tariff, and TCC's Terms of Service – such as a commitment to informing the customer of the reason for the deposit and providing an option for an alternative to the deposit; that the principal and interest will be reflected on billing statements; and that the service provider must regularly review the continued appropriateness of the deposits and refund or credit the deposit, with interest, or return the guarantee or undertaking, when service is terminated or the conditions

justifying the arrangement are no longer required. It would be appropriate for Bell Mobility to revise its proposed provision to include the missing elements.

202. TCC's Terms of Service provisions are appropriate.

203. In light of the above, the Commission **directs**

- RCCI to delete its proposed security provision and reproduce its Access Services Tariff deposit provision in its wholesale roaming tariff, replacing "interconnection services" with "wholesale roaming services"; and
- Bell Mobility to revise its proposed deposit provision to include missing elements previously approved by the Commission, based on the wording in the CLEC Model Tariff.

### **Should wholesale roaming customers be required to maintain insurance?**

#### **Positions of parties**

204. RCCI proposed that wholesale roaming customers be required to maintain, among other things, a comprehensive general liability insurance policy or policies with a combined single limit of not less than \$10 million for bodily injury or death and for property damage.

205. Eastlink and Ice Wireless submitted that RCCI's proposed requirement was excessive. They noted that neither Bell Mobility nor TCC had proposed a requirement for insurance, and submitted that the provision should be removed from RCCI's tariff.

206. Eastlink submitted that it has insurance provisions in its tower sharing agreements in cases where there is risk of direct damage to the incumbents' equipment and infrastructure (or vice versa, when the incumbents co-locate on Eastlink's towers) but that there is no theoretical possibility that roaming services could cause injury, death, or direct damage to property.

207. Ice Wireless submitted that RCCI's insurance requirement imposed a considerable burden on wholesale roaming customers, constituting a barrier to obtaining wholesale roaming services for small operators. It also submitted that RCCI is already protected by its own insurance coverage for such perils.

208. RCCI submitted that a requirement for a comprehensive general liability insurance policy is standard for a commercial agreement with the scope and complexity of a nationwide roaming agreement. It also submitted that the limit of not less than \$10 million was reasonable.

### **Commission's analysis and determinations**

209. Neither Bell Mobility nor TCC included an insurance provision in their proposed tariffs, and the Commission has not approved an insurance provision for the CLEC Model Tariff. RCCI did not provide evidence that one is required in its specific circumstances as an incumbent. As noted above, RCCI may require a deposit in cases where it has concerns about the credit history, credit rating, or abnormal risk of loss associated with a wholesale roaming customer.
210. In light of the above, the Commission **directs** RCCI to delete the proposed insurance provision from its tariff.

### **What should the limitations of liability be?**

#### **Positions of parties**

211. Among other things, Bell Mobility's and RCCI's proposed limitation of liability provisions state, with certain exceptions, that these companies will not be liable for any indirect, special, incidental, consequential, punitive, or exemplary damages; loss of revenue; or loss of profits. Their proposed provisions also specify that they will not be liable to the wholesale roaming customer, any roaming end-user, or any other person for damages resulting from errors, omissions, interruptions, delays, transmission errors, transmission defects, breakdown, or defects in the company's network, or the services, or any other cause; and for any act or omission by a third party whose network installations or services are used to provide wholesale roaming or connectivity to the service.
212. Bell Mobility proposed to limit its liability to \$100,000, while RCCI proposed a limit of the greater of \$1 million or the aggregate of all amounts payable to RCCI during the 12-month period immediately preceding the date of the incident that leads to the initiation of the claim.
213. TCC's Terms of Service specify that the company's liability is not limited in cases of deliberate fault, gross negligence, or anti-competitive conduct by TCC, or in cases of breach of contract where the breach results from TCC's gross negligence. Except in cases where the company's negligence results in physical injury, death, or damage to the customer's property or premises, TCC's wording limits the company's liability to the greater of \$20 or three times the amount refunded or cancelled as a result of telephone directory errors and omissions, or as a result of specific service problems.
214. Ice Wireless submitted that RCCI's proposed tariff sets out a mutual limitation of liability that provides greater certainty to both parties than TCC's term. In its view, TCC's limitation of liability would be extremely prejudicial if it were applied to the damages available to TCC's wholesale roaming customers.
215. Eastlink submitted that a limitation of liability of \$1 million is unnecessarily high for wholesale roaming, and that Bell Mobility's proposed \$100,000 threshold is more reasonable. Eastlink also expressed concern about the one-sided nature of Bell

Mobility's limitation of liability provision, in particular, and submitted that it should be reciprocal, as it is in RCCI's proposed tariff.

216. WIND submitted that the incumbents' other wholesale tariffs were generally fair and balanced in comparison to the limitations of liability and indemnification provisions in the proposed wholesale roaming tariffs. Like Eastlink, WIND was of the view that the proposed limitation of liability provisions were one-sided. It submitted that they do not properly deal with deliberate fault, gross negligence, anti-competitive conduct, breach of contract where the breach results from the gross negligence of the wholesale roaming provider, or disclosure of confidential information. It also submitted that the proposed term is inappropriate in cases of physical injuries or death.
217. RCCI replied that its tariff includes clauses that limit the liability of RCCI and the wholesale roaming customer, which it submitted was standard in commercial agreements. It acknowledged that its language is one-sided to the extent that it outlines how only one party, RCCI, provides wholesale roaming, but that the key language that limits liability is reciprocal and fully addresses the sources of damage that WIND believes are not dealt with sufficiently.
218. TCC replied that when the terms and conditions in its proposed roaming tariff are reviewed in conjunction with those in its Terms of Service, concerns about its limitation of liability wording become irrelevant. It noted that the Commission has accepted the limitation of liability set out in its Terms of Service for the provision of all regulated wholesale and retail services.
219. In reply to WIND's comment that TCC's limitations of liability are one-sided and do not properly deal with certain matters, TCC submitted that the Terms of Service do deal specifically with these items. It noted, further, that its Terms of Service contain specific confidentiality provisions and, in particular, state the inapplicability of the limitation of liability provisions in the case of unauthorized disclosure of confidential customer information.

#### **Commission's analysis and determinations**

220. Both TCC's Terms of Service and the CLEC Model Tariff specify that the company's liability is not limited in cases of deliberate fault, gross negligence, anti-competitive conduct, or breach of contract where the breach results from the company's gross negligence. The CLEC Model Tariff also includes disclosure of confidential information in this list. In both TCC's Terms of Service and the CLEC Model Tariff, the company's liability for negligence is limited to three times the amounts refunded or cancelled in relation to specific service problems – unless, in the case of TCC, the total is less than \$20. The specified limits do not apply in cases where the company's negligence results in physical injury, death, or damage to the customer's property or premises.
221. Neither Bell Mobility nor RCCI included any of the above items in their proposed limitation of liability provisions. They did, however, specify that they would not be

liable for damages resulting from errors, omissions, interruptions, delays, transmission errors, transmission defects, breakdown, or defects in the company's network, or the services, or any other cause.

222. While their proposed tariff items include what appear to be high, but very different, maximum liability amounts, they are also imposing limits on matters that are excluded from limitation of liability provisions in other approved tariffs.
223. Given the seriousness of the potential issues in question, and for consistency, Bell Mobility and RCCI should exclude from their limitation of liability provisions the same items that have been excluded in other approved tariffs. In addition, it is not appropriate for Bell Mobility and RCCI to specify that they will not be liable for damages resulting from "any other cause," which is a very broad statement.
224. RCCI's Access Services Tariff includes limitation of liability provisions that are based on wording in the CLEC Model Tariff. RCCI's circumstances as an incumbent should not require an approach for limitation of liability terms for wholesale roaming that is different from what is already included in its Access Services Tariff. Reliance on the existing provision in the Access Services Tariff would address the issues noted above.
225. Similarly, the CLEC Model Tariff limitation of liability provision would be an appropriate template for Bell Mobility's provision, and it would be appropriate for the company to replace its existing proposed items with the CLEC Model Tariff provision. The latter references "Refunds in Cases of Service Problems" that include omissions, interruptions, delays, errors or defects in transmission, or failures and defects in the company's facilities, and form the basis of the calculation of the liability limit.
226. As confirmed above, TCC may reference its general Terms of Service, which have been approved by the Commission and which apply to services provided under its retail and wholesale tariffs. However, should a provision in the Terms of Service not be appropriate for the purpose of the wholesale roaming tariff, the Commission could require TCC to include a different provision in its wholesale roaming tariff.
227. While \$20 may seem insignificant in the context of wholesale roaming, TCC's tariff alternatively provides for liability up to three times the amount refunded or cancelled by TCC as a result of a service issue in cases where this amount is greater; accordingly, taken as a whole, the term does not appear unreasonable. The key point is that the limit of three times the amount refunded or cancelled by TCC as a result of a service issue is the same as what the other two incumbents will be subject to. However, certain references in TCC's Terms of Service would not apply in the case of wholesale roaming services – for example, the reference to Telephone Directory Errors and Omissions.
228. In light of the above, the Commission **directs**

- Bell Mobility to delete its proposed limitation of liability provision and replace it with wording based on the provision in the CLEC Model Tariff; and
- RCCI to delete its proposed limitation of liability provision and replace it with wording based on the limitation of liability provision in its Access Services Tariff.

### **Are the proposed termination and suspension of service provisions appropriate?**

#### **Positions of parties**

229. The incumbents proposed a wide variety of suspension and termination provisions to deal with issues related to roaming, technical problems, and non-payment. The proposed provisions included various timelines and notification periods.

230. Videotron submitted that for a matter as important as the termination or suspension of services, which could dramatically and adversely affect the wholesale roaming customer's entire subscriber base, a minimum 30-day written notification period is required.

231. Eastlink submitted that some roaming that Bell Mobility and TCC might consider inappropriate is actually appropriate or unavoidable. It submitted that the incumbents do not have a relationship with its end-users and that, therefore, they could not know why the end-user's usage appears as it does on the roaming network. In Eastlink's view, it would be entirely inappropriate to suspend all roaming access for all end-users of a wholesale roaming customer based solely on the incumbent's incomplete analysis of the traffic on its network.

232. Eastlink also submitted that terminating wholesale roaming could have catastrophic effects on legitimate facilities-based wireless carriers that have invested hundreds of millions of dollars in their networks and core network infrastructure, and rely on wholesale roaming to supplement their own wireless networks. In its view, therefore, the test for termination of service should be specific and reasonable.

233. Finally, Eastlink submitted that it would be inappropriate for all of a wholesale roaming customer's end-users to lose access to domestic roaming service simply because of a billing dispute between two established, properly operating facilities-based service providers.

#### **Commission's analysis and determinations**

234. The incumbents' proposed suspension and termination provisions include differing, complex, and onerous conditions, many of which are not appropriate in a tariff for a mandated service. The proposals include the ability for incumbents to block roaming services to the wholesale roaming customer's individual end-users or to all of the customer's end-users, with varying degrees of notification. The incumbents proposed that they should be able to effect suspension or termination of service because of

technical issues caused by individual end-users, and in cases of any kind of breach of the terms of the tariff – including the prohibitions related to resale and permanent roaming that they had proposed.

235. While the suspension or termination of roaming service to an individual end-user may be necessary for technical reasons in certain circumstances, the proposed provisions are too broad and have the potential to be abused in an anti-competitive manner by allowing the incumbents to interfere with the ability of their wholesale roaming customers' end-users to use the service. Suspension and termination clauses are meant to address the relationship between the incumbent and its wholesale roaming customer, not the incumbent and the wholesale roaming customer's individual end-users.

236. Provisions that permit termination or suspension of service to individual end-users for technical reasons that are the same as those under which the incumbents would terminate or suspend access to the network by their own end-users would be appropriate. However, all other elements of the suspension and termination provisions should be substantively the same across all three incumbents' tariffs to allow for consistent interpretation and rights of wholesale roaming customers, based on the following principles:

- the incumbents may only suspend or terminate the service being provided to a wholesale roaming customer under the tariff because of a failure to pay or a breach of the deposit provisions, or because the customer is using the service in a manner inconsistent with the service definition set out in the tariff; and
- the incumbents must follow an incremental approach to suspending and terminating the service provided to the wholesale roaming customer, with appropriate notice.

237. In terms of what the appropriate amount of notice would be, the Commission has previously approved suspension and termination provisions that apply to wholesale services – for example, in the incumbents' General Terms of Service, the CLEC Model Tariff, and RCCI's Access Services Tariff. In particular, the CLEC Model Tariff provides for a process whereby notice of suspension or termination must be provided at least 30 days before the event takes place, and a separate provision states that the service cannot be suspended or terminated in cases where the reason for the suspension or termination is the subject of a dispute, as long as the service is being paid for.

238. Given the above-noted issues with what the incumbents have proposed, it would be both appropriate and efficient for the incumbents to model their suspension and termination provisions on the CLEC Model Tariff. This process will both incent the incumbent and the wholesale roaming customer to work together to resolve any suspension or termination issues that are identified, and ensure that a wholesale roaming customer has sufficient time to bring a dispute to the Commission before



service is suspended or terminated if it feels the reasons for the suspension or termination are invalid.

239. In light of the above, the Commission **directs** the incumbents to revise their proposed suspension and termination provisions to

- allow the incumbent to block roaming service to individual end-users of a wholesale roaming customer only in cases where it would block access to its network to its own end-users, and only for technical reasons;
- permit suspension and termination of wholesale roaming to the wholesale roaming customer for failure to pay, for failure to comply with the deposit provisions, or for use of the network access provided under the tariff in a manner other than that permitted by the definition of the service; and
- set out the process and timelines for notification and suspension or termination based on the wording in the CLEC Model Tariff.

#### **What trademark and trade name provisions are appropriate?**

##### **Positions of parties**

240. Bell Mobility and RCCI proposed conditions that would prohibit a wholesale roaming customer from using the incumbent's trademarks and trade names. These conditions would allow the wholesale roaming customer to inform its end-users of which incumbent's network they use for roaming, but the customer would be restricted in its ability to do anything beyond simply revealing the legal name of the incumbent in question.

241. Ice Wireless submitted that the proposed conditions are unreasonable. In its view, the wholesale roaming customer must be permitted to communicate the geographic coverage of its network to its end-users, and end-users have a right to information about the basic coverage and performance of roaming services while outside their home network. It also submitted that there are no valid commercial reasons for preventing wholesale roaming customers from sharing this information with end-users.

242. As a result, Ice Wireless proposed that these conditions be revised so that the only obligations on wholesale roaming customers would be a restriction from using anything other than Bell Mobility's and RCCI's full legal names, and a prohibition on using their logos, service marks, trademarks, and/or trade names without the express prior consent of the company in question.

##### **Commission's analysis and determinations**

243. In the proceeding leading to the wholesale wireless framework, Eastlink submitted that provisions that prevent wireless carriers from disclosing the identity of their wholesale roaming providers should be prohibited. It argued that these were onerous

provisions that prevented Eastlink from providing simple information to its end-users about the services they were buying, such as where they could expect mobile coverage.

244. In the wholesale wireless framework, the Commission imposed a condition on wholesale roaming providers, pursuant to section 24 of the Act, that prohibits them from preventing wireless carriers from disclosing the identities of their wholesale roaming providers to their current or potential customers (the section 24 condition). This condition applies to all wireless carriers that provide wholesale roaming, regardless of the network technology being used. The intention of the section 24 condition was to ensure that Canadians have the information they need to make informed choices about their wireless services.
245. In attempting to reflect this condition in their proposed tariffs, Bell Mobility and RCCI have included complex language and numerous restrictions on the use of their trademarks and trade names, and on the ability of the wholesale roaming customer to market its services based on the roaming partnership.
246. The original intention of the section 24 condition is clear: the wholesale roaming customer should be able to disclose to its end-users which incumbent's network they use for roaming. If end-users are aware of the wholesale roaming provider's identity, they will be able to easily access publicly available information about the incumbents' coverage areas. In the Commission's view, there is very little potential for harm to the incumbents if wholesale roaming customers are permitted to point to this publicly available information when providing information to their own end-users.
247. The provisions proposed by Bell Mobility and RCCI are overly broad, insofar as they target behaviours that are generally outside the scope of the Act and subject to other legal remedies that would remain available irrespective of the section 24 condition. It is therefore not necessary to include in a tariff provisions such as those related to the unauthorized use of the incumbents' trademarks or trade names, or the making of false, misleading, or deceptive representations in advertising or marketing material.
248. The Commission therefore **directs**
- Bell Mobility and RCCI to remove from their tariffs their proposed provisions regarding the use of trademarks and trade names; and
  - the incumbents to include a new tariff provision that replicates the section 24 condition set out in paragraph 148 of the wholesale wireless framework.

#### **Other terms and conditions**

249. In addition to the issues discussed above, the Commission has identified a number of issues to be addressed, such as wording changes to implement the general approach set out in paragraph 12 above, to clarify concepts, and to correct typographical

errors. Directed wording changes and brief analyses are set out in the Appendix to this decision.

### **Should off-tariff agreements be allowed?**

250. The incumbents are currently offering wholesale roaming pursuant to interim tariffs that incorporate their existing roaming agreements by reference. They may also offer wholesale roaming on rates, terms, and conditions different from those set out in their interim tariffs through the use of off-tariff agreements.
251. In Telecom Regulatory Policy 2016-313, the Commission forbore from the regulation of off-tariff agreements for the period beginning on the date that decision was issued until the rates, terms, and conditions are approved on a final basis. The Commission indicated its intention to launch a follow-up proceeding to determine whether such agreements would continue to be appropriate following final approval of the tariffs.
252. However, in setting out its determinations about what should and should not be included in the final terms and conditions as a result of the current proceeding, the Commission has created certainty as to what the final tariffs will encompass. The Commission is of the view that it would now be reasonable to make a final determination – without a further follow-up process – that off-tariff agreements should continue to be forborne once the interim tariffs are finalized.
253. As a result, and for greater efficiency, the Commission determines that it will forbear, on a final basis, from the approval of off-tariff agreements for wholesale roaming, on the same basis and for the same reasons as those set out in Telecom Decision 2016-313.
254. This determination will take effect on the date that the rates, terms, and conditions in the wholesale roaming tariffs are approved on a final basis, so as to leave in place the condition found in the interim decision that incumbents not bind their customers to an off-tariff agreement beyond the date when the rates, terms, and conditions are made final.
255. The incumbents will continue to be required to file copies of any off-tariff negotiated agreements entered into, in confidence if they wish, as well as general summaries of these agreements for the public record, within 15 days of the agreements being entered into.

### **Final tariff approval process**

256. The Commission **directs** the incumbents to file as new tariff notices, by **31 March 2017**, revised proposed tariff pages for wholesale roaming that reflect the determinations in this decision.
257. Parties may review the revised tariff pages and submit interventions by **1 May 2017**. Replies may be submitted by **11 May 2017**.

258. Submissions are to be limited to whether the revised tariffs reflect the determinations in this decision.

### **Policy Direction**

259. The determinations made in this decision are consistent with the Policy Direction for the reasons set out below.

260. The Policy Direction states that the Commission, in exercising its powers and performing its duties under the Act, shall implement the policy objectives set out in section 7 of the Act, in accordance with paragraphs 1(a), (b), and (c) of the Policy Direction.

261. In Telecom Regulatory Policy 2015-177, the Commission determined that it was necessary to regulate the rates, terms, and conditions pursuant to which the incumbents provide other Canadian wireless carriers with wholesale roaming, and addressed how its determinations are consistent with the Policy Direction.

262. The key issues under consideration in this decision relate to ensuring that terms and conditions of the incumbents' tariffs (i) reflect the policy established in Telecom Regulatory Policy 2015-177, (ii) define the scope of mandated wholesale roaming to avoid potential anti-competitive behaviour by the incumbents, (iii) recognize the principle that the incumbents are not required to provide access to their networks to service providers and their customers who do not qualify for mandated wholesale roaming, and (iv) prevent customers who purchase mandated wholesale roaming, or their mobile virtual network operators, from making unauthorized use of the incumbents' networks.

263. Therefore, subparagraphs 1(a)(ii)<sup>12</sup> and subparagraphs 1(b)(i) and (iv)<sup>13</sup> of the Policy Direction apply to the Commission's determinations in this decision.

264. Consistent with subparagraph 1(a)(ii), the Commission has used measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent possible. In this regard, the Commission has reviewed the terms and conditions to ensure that only those elements necessary to safeguard the interests of users and the integrity of the incumbents' networks have been included.

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<sup>12</sup> Paragraph 1(a)(ii) states that the Commission should "when relying on regulation, use measures that are efficient and proportionate to their purpose and that interfere with the operation of competitive market forces to the minimum extent necessary to meet the policy objectives."

<sup>13</sup> Paragraph 1(b) states, among other things, that "the Commission, when relying on regulation, should use measures that satisfy the following criteria, namely, those that (i) specify the telecommunications policy objective that is advanced by those measures and demonstrate their compliance with this Order, [...] and (iv) if they relate to network interconnection arrangements or regimes for access to networks, buildings, in-building wiring or support structures, ensure the technological and competitive neutrality of those arrangements or regimes, to the greatest extent possible, to enable competition from new technologies and not to artificially favour either Canadian carriers or resellers."

265. Consistent with subparagraph 1(b)(i) of the Policy Direction, the Commission considers that the policy objectives set out in paragraphs 7(a), (b), (c), (f), (g), and (h) of the Act<sup>14</sup> are advanced by the regulatory measures established in this decision.

266. Consistent with subparagraph 1(b)(iv) of the Policy Direction, the Commission considers that its determinations, as they relate to network interconnection arrangements or regimes for access to networks, are technologically and competitively neutral and do not artificially favour either Canadian carriers or resellers.

Secretary General

### **Related documents**

- *Consideration of whether the Commission should forbear with respect to off-tariff negotiated agreements for GSM-based wholesale mobile wireless roaming services*, Telecom Regulatory Policy CRTC 2016-313, 5 August 2016
- *Regulatory framework for wholesale mobile wireless services*, Telecom Regulatory Policy CRTC 2015-177, 5 May 2015
- *Notification of Network Changes, Terminal-to-Network Interface Disclosure Requirements and Procedures for the Negotiation and Filing of Service Arrangements*, Telecom Letter Decision CRTC 94-11, 4 November 1994

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<sup>14</sup> The cited policy objectives of the Act are 7(a) to facilitate the orderly development throughout Canada of a telecommunications system that serves to safeguard, enrich, and strengthen the social and economic fabric of Canada and its regions; (b) to render reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada; (c) to enhance the efficiency and competitiveness, at the national and international levels, of Canadian telecommunications; (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; (g) to stimulate research and development in Canada in the field of telecommunications and to encourage innovation in the provision of telecommunications services; and (h) to respond to the economic and social requirements of users of telecommunications services.

## Appendix to Telecom Decision CRTC 2017-56

### Additional tariff changes and rationale

#### Bell Mobility

- 1.(a): Delete “unless a different meaning is called for in the context of another provision in this tariff item.” It is unnecessary and adds confusion.
- 1.(a)(1): Delete the definition of “affiliate.” It is unnecessary. If this is removed, the definition set out in the Act will apply by default.
- 1.(a)(18): Clearly separate the definition of “Operator” (which should be replaced with the term “wholesale roaming customer” throughout the tariff for consistency with the decision) from the description of the service.
- 1.(a)(21): Delete this clause because clause 1.(a)(23) is to be removed based on the Commission’s determinations in the decision.
- 1.(a)(22): Delete or amend the typographical or grammatical error – i.e. the sentence fragment at the end of the definition.
- 1.(a)(24): To avoid confusion, replace the term “roaming customer” with “end-user.” Reflect this change throughout the tariff.
- 3.(a)(1): Delete “Subject to their licenses, the Circular and the Framework, the Company and Operator hereby agree, subject to this tariff item, to the establishment of Roaming in accordance with:

a. the Annexes;”

and replace with “The Services shall be offered in accordance with:

a. this tariff;

b. the annexes;

c. ...”

Add wording that describes the order of precedence of the documents in accordance with which the tariffed service is provided in case of conflict, indicating that the tariff is always first.

- 3.(b)(1): Delete this clause. It is not necessary.
- 3.(b)(2): Delete or amend the final sentence. The section cannot be subject to itself.

- 8.(c)(1): Add “a reasonable” before “exchange of information.” This change is intended to mitigate the potential for abuse regarding information requirements.
- 9.(a)(3): Revise as follows: “Late payment charges are forborne from regulation, pursuant to Telecom Regulatory Policy CRTC 2009-424 and will be calculated...”
- 12.(a): Replace with wording based on TCC’s proposed clause 233.3.11.
- 15.(a): Delete the second sentence. The third (i.e. final) sentence is sufficient to address this matter.
- 18.: Delete the entire “Roaming Customer Indemnification” clause. It is inappropriate in the circumstances and inconsistent with the approach to limitation of liability set out in the decision.
- 20.(a): Delete the last sentence. It is inconsistent with the approach to termination set out in the decision.
- 23.(a) and (c): Delete these clauses. They are not appropriate for a tariff.
- 23.(d): Delete this clause. Any provision of service not consistent with the tariff occurs as a separate forborne service or through an off-tariff service.

## **RCCI**

- 1.: Delete “unless a different meaning is called for in the context of another provision in this Tariff.” It introduces uncertainty.

Include a statement to indicate that the Definitions and General Terms in Part A of RCCI’s Access Services Tariff apply to its wholesale roaming tariff, insofar as they are not inconsistent with the wholesale roaming tariff.

- 1.2: Revise the definition to refer to statutory holidays as set out in the federal *Interpretation Act*, on which the Commission relies for interpretation.
- 1.11: Delete the end of the sentence, beginning with “responsible for the regulation...” It is unnecessary and potentially confusing.
- 1.16: Clearly separate the definition of “Operator” (which should be replaced with the term “wholesale roaming customer” throughout the tariff for consistency with the decision) from the description of the tariffed service.
- 1.23: Replace “Resellers” with “MVNOs.” For clarity and consistency with the decision, use “MVNO” throughout the tariff instead of “Reseller.”
- 1.26: Merge with the definition of “end-user” in clause 1.7.
- 2.2: Delete.

- 3.1: Add wording that describes the order of precedence of the documents in accordance with which the tariffed service is provided in case of conflict, indicating that the tariff is always first.

Indicate which of these documents are “as amended from time to time.”

- 3.3: Delete all wording after the first sentence. It is unnecessary.
- 4.5: Delete. This is unnecessary and inappropriate for a tariff.
- 4.6: Revise the first sentence by deleting everything after “...equipment identification register (“EIR”) program.”

Revise the second (i.e. last) sentence by adding the bold and italicized text, as follows: “In the event Rogers notifies the ***Wholesale Roaming Customer*** of any Devices that have been used for Roaming which Rogers believes have been stolen ***or are unauthorized***, then the ***Wholesale Roaming Customer*** shall use commercially reasonable efforts ***to investigate the registration of the Devices and, where appropriate***, suspend such Devices,” which aligns with wording in Bell Mobility’s tariff (at clause 15, as discussed above).

- 6.1.2: Delete. This is not appropriate for a tariff.
- 6.4 and 6.5: In both cases, delete everything after “GSM Association Permanent Reference Documents.” This has already been dealt with by adding “as amended from time to time” in clause 3.1.
- 6.6: Replace with the deposit provision found in RCCI’s Access Services Tariff under clause 102.6, replacing “interconnection services” with “wholesale roaming services” and “Telecommunications Provider” with “wholesale roaming customer”.
- 7: Replace with wording based on TCC’s proposed clause 233.3.11.
- 8.1 Correct “wholeor” typographical error.
- 8.2: Delete “or as may be necessary or appropriate pursuant to other legal process.” It is not sufficiently clear.

Delete the sentence that refers to information being transmitted and disclosed to Industry Canada. It is not appropriate for a tariff.

- 8.3: Delete “and the contents of this Tariff.” The tariff is a public document.
- 10: Delete “and other documents agreed to by Rogers and the Operator.” This is not appropriate for a tariff.
- 11.4: Delete this clause. It is inappropriate in the circumstances and inconsistent with the approach to limitation of liability set out in the decision.
- 11.6: Delete this clause. It is inappropriate in the circumstances and inconsistent with the approach to limitation of liability set out in the decision.



- 13: Add “unforeseeable” before the word “obstacles” in the following phrase of the first sentence: “...or any other obstacles beyond Rogers’ control...”

Correct grammar/typographical error in the second sentence.

Delete the third (i.e. final) sentence. It is inconsistent with the approach to termination set out in the decision.

- 14.2: Delete this clause. It is unnecessary and inappropriate for a tariff.

## TCC

- 233.1 – paragraph 1: Fix typographical errors in the third sentence as indicated in bold italics: “This GSM-based Roaming Service ***allows*** retail customers of Canadian mobile wireless carriers to originate or terminate communications when they are outside of their wireless carrier’s footprint...”
- 233.1 – paragraphs 2 and 3: Delete these paragraphs. They are unnecessary and inappropriate for a tariff.
- 233.2 – Definition of “Contract”: Delete. It is not appropriate or necessary for a tariff.
- 233.2 – Definition of “HPMN Operator”: Replace with the term “wholesale roaming customer” throughout the tariff for consistency with the decision.
- 233.2 – Definition of “Wholesale Roaming”: Delete the second sentence. It is inappropriate for a tariff.
- 233.3.1.: Delete “In respect and subject to other national binding regulations to provide roaming services,” and “mutual.”

Add wording that describes the order of precedence of the documents in accordance with which the tariffed service is provided in case of conflict and reorder the list, indicating that the tariff is always first.

- 233.3.2.c: Delete this clause. It is unnecessary and inappropriate for a tariff.
- 233.3.3.: The second sentence should be changed to read as follows, with text to be added shown in bold italics and text to be deleted struck out:

The provision of this Tariff Item is subject to the Company’s General Terms of Service (as referenced in Item 100), ***insofar as they are reasonably applicable and not inconsistent with this Tariff***, ~~and all applicable service conditions, rates and charges, as amended from time to time and approved by the CRTC.~~

The portion to be deleted is unnecessary in the circumstances.

- 233.3.8.: Delete this clause. It is covered by the service description in clause 233.1.

- 233.3.10.a.: Delete “All other roaming services are subject to commercial negotiation between the HPMN and the VPMN.” It is unnecessary and inappropriate for a tariff.
- 233.3.10.c.: Delete “as same may be amended upon the mutual written agreement of the Parties in order to conform with any modifications adopted by the GSM Association” and replace with “as amended from time to time.”
- 233.3.17.: Delete the final sentence.
- 233.3.25.h.: Delete this clause. It is inappropriate for a tariff.
- 233.3.26.: Delete this clause. It is inappropriate for the final tariff.