



Telecom Decision CRTC 2019-56

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TNW Wireless Inc. – Application for final relief regarding agreements for wholesale mobile wireless roaming services from Bell Mobility Inc. and TELUS Communications Inc.

The Commission finds that TNW Wireless Inc. (TNW) is eligible to operate as a wireless carrier, subject to compliance with the relevant Commission regulatory requirements. TNW may begin offering mobile wireless services once it demonstrates that it has complied with all applicable 9-1-1 service obligations.

Further, consistent with Telecom Decision 2017-56, the company may access tariffs for wholesale mobile wireless roaming services (wholesale roaming) in accordance with the terms of the tariffs, subject to the provision of a security deposit. However, the Commission finds that the company's proposed iPCS (Internet personal communications system) service does not comply with the Commission's framework for mandated wholesale roaming; therefore, the company is not eligible to access wholesale roaming tariffs in relation to the provision of this service.

Background

1. Wholesale mobile wireless roaming service (wholesale roaming) enables the retail customers of a wireless carrier¹ to automatically access the voice, text, and data services of a visited wireless carrier's network (also referred to as the "host network"), including the radio access network (RAN), when they travel outside their home carrier's network footprint. Mobile virtual network operators (MVNOs) also rely on some or all components of a wireless carrier's network, including the RAN, to provide retail services.²
2. While wholesale roaming provides a wireless carrier's customers with incidental access to a host network, wholesale MVNO access service provides an MVNO's customers with permanent access to the host network.
3. In Telecom Regulatory Policy 2015-177 (the wholesale wireless framework), the Commission directed Bell Mobility Inc., (Bell Mobility), Rogers Communications

¹ A wireless carrier requires spectrum and a mobile wireless network to provide mobile wireless services to its customers. A mobile wireless network consists of several elements, including a radio access network.

² 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 customers.

Canada Inc. (RCCI),³ and TELUS Communications Inc. (TCI)⁴ (collectively, the national wireless carriers) to provide Global System for Mobile communications (GSM)-based⁵ wholesale roaming (mandated wholesale roaming) to other Canadian wireless carriers. It determined that the national wireless carriers' offering and provision of mandated wholesale roaming must be done in accordance with Commission-approved rates, terms, and conditions. The Commission also determined that it would not be appropriate to mandate the national wireless carriers to offer a wholesale MVNO access service at that time.

4. In Telecom Decision 2017-56, the Commission approved the rates, terms, and conditions associated with the national wireless carriers' mandated wholesale roaming on a final basis. In addition, the Commission confirmed that mandated wholesale roaming provides incidental, and not permanent, access to the national wireless carriers' networks. The Commission also clarified 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 host network pursuant to the relevant wholesale roaming tariffs.
5. In Telecom Decision 2017-57, the Commission applied its determinations from Telecom Decision 2017-56 to a dispute before it between Ice Wireless Inc. (Ice Wireless) and RCCI. The two companies have a roaming agreement that incorporates by reference RCCI's wholesale roaming tariff, under which Ice Wireless's end-users can roam on RCCI's network when travelling outside the operating territory of their home network carrier. Sugar Mobile, an MVNO affiliate of Ice Wireless and a Wi-Fi-first service provider,⁶ was allowing its end-users to access RCCI's network on a permanent basis, in violation of the roaming agreement. Accordingly, the Commission determined that Sugar Mobile was no longer allowed to access RCCI's network on a permanent basis using Ice Wireless's wholesale roaming agreement with RCCI.

Application

6. The Commission received an application from TNW Wireless Inc. (TNW), dated 3 July 2017, in which the company requested that the Commission require Bell Mobility and TCI to provide TNW with wholesale roaming agreements under the

³ In the proceeding that led to that decision, submissions were received from Rogers Communications Partnership (RCP). RCP ceased to exist on 1 January 2016. All of RCP's business activities, including its assets and liabilities, are now held by RCCI. For ease of reference, "RCCI" is used in this decision.

⁴ In the proceeding that led to that decision, as well as for this Part 1 application, submissions were received from TELUS Communications Company (TCC). However, effective 1 October 2017, TCC's assets were legally transferred to TCI and TCC ceased to exist. For ease of reference, "TCI" is used in this decision.

⁵ Wireless networks in Canada are based primarily on GSM technology and have evolved to a single standard known as long-term evolution (LTE).

⁶ Wi-Fi-first service providers offer mobile applications that use a combination of Wi-Fi and cellular networks to offer wireless services, including voice and text messaging services. The applications consume mobile data only when the end-users do not have Wi-Fi access.

relevant tariffs, pursuant to the Commission's framework for mandated wholesale roaming.⁷

7. TNW indicated that it was planning to offer two types of services as a wireless carrier: (i) a traditional mobile wireless service, and (ii) an iPCS (Internet personal communications system) service, which is a Wi-Fi-based, smartphone over Internet Protocol (IP) service. The company submitted that without wholesale roaming agreements, it would be unable to launch any services.
8. TNW also requested that the Commission review its proposed iPCS service for compliance with the final terms and conditions for mandated wholesale roaming set out in Telecom Decision 2017-56.
9. The Commission received interventions regarding TNW's application from Bell Mobility; Bragg Communications Incorporated, carrying on business as Eastlink; Ice Wireless; the Public Interest Advocacy Centre; Quebecor Media Inc., on behalf of Videotron Ltd. (Videotron); RCCI; Shaw Communications Inc. (Shaw); and TCI.

Issues

10. The Commission has identified the following issues to be addressed in this decision:

- Is TNW eligible to operate as a wireless carrier?
- Does TNW's iPCS service comply with the Commission's wholesale roaming framework?
- Does TNW's 9-1-1 service comply with the Commission's regulatory rules and requirements?
- Do Bell Mobility and TCI have the right to refuse to provide access to wholesale roaming agreements under the wholesale roaming tariffs when there is a credit risk?

Is TNW eligible to operate as a wireless carrier?

Positions of parties

11. TNW stated that it is a facilities-based operator with its own network and spectrum licences. TNW stated that "TNW Wireless Inc." is the new name of the company previously known as "RuralCom Corporation" (RuralCom), which was acquired by Investel Capital Corporation in December 2016. TNW submitted that RuralCom had been issued the spectrum licences from Innovation, Science and Economic Development Canada (ISED); accordingly, in TNW's view, it now holds the spectrum rights.

⁷ In its application, TNW requested both interim and final relief. The Commission denied the request for interim relief in a [letter](#) dated 23 October 2017.

12. Some interveners, including Bell Mobility, TCI, and Videotron, raised concerns as to whether TNW could operate as a wireless carrier given that it was not clear whether the company has deployed network coverage and whether it in fact holds spectrum licences.

Commission's analysis and determinations

13. The Commission considers that spectrum, licensed by ISED under the *Radiocommunication Act*, and a mobile wireless network comprise a wireless carrier's home network, to which end-users are provided access when they are within the carrier's network footprint.
14. On 5 December 2018, TNW provided the Commission with a letter from ISED confirming that ISED had approved the transfer of the licences from RuralCom to TNW. In addition, based on the record of this proceeding, the Commission finds that TNW has demonstrated that it owns a core network and a RAN in British Columbia and Yukon. As a result, the Commission considers that TNW has a mobile wireless network and is eligible to operate as a wireless carrier.
15. In light of the above, the Commission finds that TNW is eligible to operate as a wireless carrier, subject to compliance with all relevant Commission regulatory requirements.

Does TNW's iPCS service comply with the Commission's wholesale roaming framework?

Positions of parties

16. TNW submitted that iPCS is an IP-only, cloud-based mobile technology that works seamlessly between Wi-Fi and fourth-generation (4G) / long-term evolution (LTE) networks. The company submitted that the iPCS service uses TNW proprietary equipment as well as a smartphone with a special TNW subscriber identity module (SIM) card and an application. When a customer uses the service, data use is tied to the active iPCS user profile and not the device or SIM card.
17. TNW submitted that it has invested heavily in its infrastructure and in alternative technologies that have been designed to fully comply with both the letter and spirit of all current Commission regulations and decisions. TNW also submitted that the iPCS service, while being used over Wi-Fi, is disconnected from any host network and is connected to its home network remotely. As such, an iPCS service customer would make only incidental use of host networks when not on Wi-Fi. Therefore, permanent roaming could not occur, and TNW would be in compliance with all current Commission rules and decisions regarding wholesale roaming.
18. TNW submitted that it operates its own network and is not a Wi-Fi-first service provider, as defined through the Commission's determinations set out in Telecom Decisions 2017-56, 2017-57, and 2018-97. TNW noted that Sugar Mobile, in the delivery of its services, was connected to the RCCI network at all times, even

when delivering services over Wi-Fi. Therefore, it was a true Wi-Fi-first service provider. TNW added that Sugar Mobile's customers were deemed to be in a permanent roaming situation, and that Wi-Fi was used to extend Ice Wireless's home network via a voice over IP (VoIP) application. TNW submitted that notwithstanding this situation, the Commission's wording in Telecom Decision 2017-57, "at least some of the time," indicates that the use of RCCI's network resources on a permanent basis, rather than the use of Wi-Fi, is the issue.

19. The national wireless carriers disputed TNW's claims that it respects the Commission's decisions concerning access to wholesale roaming agreements. They likened TNW's iPCS service to the service offered by Sugar Mobile. They argued that a service provider's use of public Wi-Fi facilities is not considered to be use of its home network, so TNW's end-users using iPCS technology would be permanently roaming, and TNW would effectively be operating as an MVNO. Accordingly, the national wireless carriers are not mandated to provide TNW with the requested service, since TNW is seeking permanent access to Bell Mobility's and TCI's networks.
20. In addition, TCI submitted that TNW is seeking to serve customers who reside outside TNW's wireless network footprint, through Wi-Fi connectivity and roaming on other carriers' networks. Given that the customers would reside in other carriers' network footprints, and not within the footprint of TNW, TCI argued that TNW is seeking to resell the network footprint of other carriers. TCI was of the view that TNW is not entitled to demand mandated wholesale roaming to gain access to other carriers' networks and then use that roaming to resell access to those networks because the Commission has not mandated wholesale MVNO access.
21. RCCI submitted that the only notable difference between TNW's iPCS service and other Wi-Fi-first services is the artificial use of TNW's spectrum on its small mobile wireless network in northern Canada, while its customers are wirelessly connected using Wi-Fi access thousands of kilometres away. According to RCCI, there is no technical need for the iPCS service to use any part of TNW's RAN and its licensed spectrum while a customer is using Wi-Fi in another part of the country.
22. Finally, the national wireless carriers argued that they could refuse to provide TNW with a wholesale roaming agreement for its iPCS service because offering the service means that the network would be used in a manner other than permitted under their wholesale roaming tariffs.

Commission's analysis and determinations

23. The iPCS service does not practically function without accessing public Wi-Fi. The Commission considers that the use of public Wi-Fi by the iPCS service does not constitute part of TNW's home network for the purpose of determining permanent or incidental access to the visited wireless carrier's network.

24. In Telecom Decision 2017-56, the Commission stated that it may use some or all of the following indicators to help it determine whether a wholesale roaming customer has misused the service, depending on the particular facts of the case:
- the wholesale roaming customer 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 carrier'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 carrier's network; and
 - it has otherwise failed to take commercially reasonable steps to limit roaming on the incumbent carrier's network by its end-users to incidental levels that are within the scope of the service.
25. The Commission considers that these factors are relevant in assessing whether the proposed iPCS service conforms with the wholesale roaming framework. In this case, iPCS service end-users would be able to have phone numbers from outside TNW's home network footprint. Also, TNW is planning to market its service online to areas outside its home network footprint and in a manner that would result in its end-users gaining permanent access to the national wireless carriers' networks. TNW submitted that it would take steps to limit roaming on these networks; however, since TNW is not yet operating the service, evidence cannot be provided concerning broad traffic patterns and network-use trends to demonstrate compliance.
26. The Commission is of the view that the use of public Wi-Fi by a TNW iPCS service end-user outside TNW's territory would not amount to the use of a home network for the purpose of roaming. When they are not using Wi-Fi, TNW's iPCS service end-users would be accessing Bell Mobility's and TCI's networks on a permanent basis, in violation of wholesale roaming agreements as mandated in Telecom Decision 2017-56.
27. In light of the above, the Commission finds that TNW's iPCS service is not compliant with the Commission's wholesale roaming framework. Therefore, the company is not eligible to access wholesale roaming tariffs to offer the iPCS service.
28. Finally, concerning the national wireless carriers' view that they have the right to refuse service based on potential misuse of a tariffed service, the Commission's regulatory framework does not permit a wholesale wireless service provider to deny access to services offered under a mandated wholesale roaming tariff on the basis of potential or possible misuse of the wholesale roaming agreement by the requesting carrier. The wholesale wireless framework does not accord the national wireless

carriers any such discretion, because doing so would lead to anti-competitive effects, which would undermine the purpose of the wholesale wireless framework.

Does TNW's 9-1-1 service comply with the Commission's regulatory rules and requirements?

Positions of parties

29. TNW submitted that it and affiliated partners have invested in and developed an Enhanced 9-1-1 (E9-1-1) service. TNW indicated that all 9-1-1 calls are directed to an emergency response centre to retrieve and verify the caller's physical location before being transferred to the appropriate public safety answering point (PSAP) within seconds. Specifically, TNW uses geolocation based on the signal received at two or more radio towers to estimate the location of the caller. TNW then converts this location information to the closest street address and updates its own Automatic Location Information (ALI) database. The call is then transferred to the appropriate PSAP.
30. Bell Mobility submitted that TNW defined its 9-1-1 service as an E9-1-1 system, but that the service TNW described does not comply with Commission-approved wireless E9-1-1 Phase II rules. For example, Bell Mobility noted that the fact that 9-1-1 calls go through a call centre before being transferred to the appropriate PSAP means that the service is not E9-1-1-compliant, and that, although an ALI database is used in the provision of E9-1-1 service, it is not used in the manner TNW described. Further, TNW made no mention of providing cell site information, nor of the 10-digit callback number to the PSAP or enabling an in-call location update function for the PSAP.

Commission's analysis and determinations

31. Pursuant to Telecom Decision 2003-53, wireless service providers are required to provide 9-1-1 service to their subscribers in communities where 9-1-1 service is available from an incumbent local exchange carrier. Further, originating network providers must offer 9-1-1 service where 9-1-1 authorities have established PSAPs. In other words, TNW must provide the level of 9-1-1 service (i.e. Basic 9-1-1 or E9-1-1 service) supported by the PSAP in the location where TNW is providing service.
32. There are many other Commission obligations regarding 9-1-1 service that would apply to TNW and with which it would have to comply when it offers mobile wireless services. These requirements include the obligation to provide wireless service subscribers with initial and periodic notification of the availability, characteristics, and limitations of the 9-1-1 service offered.
33. Compliance with 9-1-1 obligations is important to protect Canadians. The Commission considers that TNW has not demonstrated that it is fully aware of its 9-1-1 obligations. For example, TNW does not appear to have taken into consideration the fact that no community in its proposed home network territory has 9-1-1 service available, let alone E-9-1-1 service, with the exception of Whitehorse, Yukon, which has Basic 9-1-1 service.

34. The Commission concludes that TNW should not be able to offer mobile wireless services until its 9-1-1 service is compliant with the Commission's obligations. Therefore, the Commission **directs** TNW to report to the Commission, with supporting documentation, that it is compliant with the applicable 9-1-1 service obligations prior to offering mobile wireless services.

Do Bell Mobility and TCI have the right to refuse to provide access to wholesale roaming agreements under the wholesale roaming tariffs when there is a credit risk?

Positions of parties

35. TCI argued that it was justified in refusing to enter into a wholesale roaming agreement with TNW, and that the Commission should not compel it to enter into such an agreement, because TNW is part of a group of companies that is (i) indebted to TCI under other agreements, and (ii) involved in *Companies' Creditors Arrangement Act* proceedings in court. TCI argued that the Commission should determine that the companies that owe money to TCI are sufficiently related to TNW such that TCI should not be required to provide TNW with agreements for a regulated service, pursuant to item 103.1 of TCI's General Tariff.⁸

36. TNW submitted that the national wireless carriers' tariffs contain ample mechanisms to deal with commercial risk (e.g. TCI's General Tariff item 112 – Deposits and Deposit Alternatives from Customers). TNW also submitted that it has offered on several occasions to pay in advance or provide a security deposit for services, but that TCI has not responded to these offers.

Commission's analysis and determinations

37. The Commission considers that there are provisions in the general terms and conditions of the national wireless carriers' tariffs regarding deposits and deposit alternatives from customers to address credit risk concerns. Further, the Commission notes that TNW proposed to pay in advance or provide a security deposit for wholesale roaming.

38. In the Commission's view, the general provisions in the national wireless carriers' tariffs, in particular TCI's tariff, and TNW's willingness to pay in advance or provide a security deposit, are sufficient to address any credit risk concerns.

39. The Commission therefore determines that, if TNW complies with all the Commission's relevant regulatory requirements and tariff provisions, TNW is eligible to access wholesale roaming tariffs pursuant to Telecom Decision 2017-56 if, in response to credit risk concerns, it provides a security deposit pursuant to the general terms and conditions set out in the national wireless carriers' tariffs.

⁸ Item 103.1 states the following: "The Company must provide service to all customers who apply except when: (a) the customer applying for service owes money to the Company, other than as a guarantor, and refuses to pay the amount owed or refuses to make payment arrangements acceptable to the Company..."

Other matters

40. Given the determinations set out in this decision, the Commission finds that it is not necessary to address the procedural requests put forth by Shaw and TCI to strike from the record of the proceeding certain comments made by TNW.

Secretary General

Related documents

- *Reconsideration of Telecom Decision 2017-56 regarding final terms and conditions for wholesale mobile wireless roaming service*, Telecom Decision CRTC 2018-97, 22 March 2018
- *Ice Wireless Inc. – Application regarding roaming on Rogers Communications Canada Inc.’s network by customers of Ice Wireless Inc. and Sugar Mobile Inc.*, Telecom Decision CRTC 2017-57, 1 March 2017
- *Wholesale mobile wireless roaming service tariffs – Final terms and conditions*, Telecom Decision CRTC 2017-56, 1 March 2017
- *Regulatory framework for wholesale mobile wireless services*, Telecom Regulatory Policy CRTC 2015-177, 5 May 2015
- *Conditions of service for wireless competitive local exchange carriers and for emergency services offered by wireless service providers*, Telecom Decision CRTC 2003-53, 12 August 2003; as amended by Telecom Decision CRTC 2003-53-1, 25 September 2003