



Telecom Decision CRTC 2019-348

PDF version

Ottawa, 8 October 2019

Public record: 1011-NOC2018-0105

Follow-up to Telecom Regulatory Policy 2019-66 – Activities related to next-generation 9-1-1 network design efficiencies

The Commission directs Northwestel Inc. to file a transition plan for the establishment of next-generation 9-1-1 (NG9-1-1) networks in its incumbent territory, wherever public safety answering points have been established, by 22 January 2020. The Commission also directs Bragg Communications Incorporated, carrying on business as Eastlink; the Independent Telecommunications Providers Association; and TBayTel to provide status updates to the Commission on their respective negotiations regarding outsourcing arrangements for NG9-1-1 network functionality.

Background

1. Canadians currently have access to either Basic 9-1-1 (B9-1-1) or Enhanced 9-1-1 (E9-1-1) service through traditional wireline, wireless, and voice over Internet Protocol (VoIP) telephone services wherever a 9-1-1 call centre, also known as a public safety answering point (PSAP), has been established.¹
2. When a person dials 9-1-1 in Canada today, the call travels from the network from which it was placed (the originating network)² to the local specialized 9-1-1 network. The 9-1-1 network then routes the call and the associated caller information (if available) to the PSAP that serves the area from which the 9-1-1 call was placed. The PSAP then dispatches emergency responders, such as fire, police, and ambulance, as required.
3. The Commission's role in the 9-1-1 context is to exercise regulatory oversight of the access provided by telecommunications service providers (TSPs)³ to 9-1-1 services in order to enable Canadians to contact PSAPs wherever PSAPs have been established by the provincial, territorial, and/or municipal governments.

¹ B9-1-1 service enables callers to be connected to PSAP 9-1-1 communicators, who dispatch the appropriate emergency responders. E9-1-1 service includes B9-1-1 service but also automatically provides PSAP 9-1-1 communicators with ancillary information, such as the telephone number and location of the caller.

² Originating networks include traditional wireline, wireless, and local VoIP telephony networks.

³ For the purposes of this decision, TSPs are restricted to originating network providers of local voice telephony services, including traditional wireline, wireless, and local VoIP telephony networks. In the future, they could be expanded to include other types of providers as new 9-1-1 services are introduced.

4. In Telecom Regulatory Policy 2014-342, the Commission indicated that Canadians should have access to new, enhanced, and innovative 9-1-1 services with Internet Protocol (IP)-based capabilities, otherwise referred to as next-generation 9-1-1 (NG9-1-1) services.
5. In Telecom Regulatory Policy 2017-182, the Commission established a framework for NG9-1-1 (the NG9-1-1 framework). Once NG9-1-1 is fully implemented in Canada, emergency assistance requests⁴ will flow from originating networks to NG9-1-1 networks as defined in the National Emergency Numbering Association (NENA) i3 architecture standard.⁵
6. The NG9-1-1 framework requires all incumbent local exchange carriers (ILECs) to provide NG9-1-1 networks in their incumbent territories, in order to provide their own retail end-users and the end-users of other TSPs that operate within those territories with access to their NG9-1-1 networks wherever provincial, territorial, and/or municipal governments have established PSAPs.
7. In Telecom Regulatory Policy 2019-66, the Commission set out determinations to further the implementation and provision of NG9-1-1 networks and services in Canada, and identified gaps with respect to NG9-1-1 points of interconnection (POIs). In order to address these gaps, the Commission directed the small ILECs, TELUS Communications Inc. (TCI) with respect to its incumbent serving territory in Quebec, and Northwestel Inc. (Northwestel), as well as any other ILECs that are 9-1-1 network providers in areas serviced by B9-1-1, to advise the Commission and relevant TSPs of the locations of their NG9-1-1 POIs by 7 May 2019.
8. The Commission received submissions from Bell Canada on behalf of its small ILECs (DMTS; KMTS; NorthernTel, Limited Partnership [NorthernTel]; Ontera, a division of NorthernTel [Ontera]; and Groupe Maskatel LP⁶); Northwestel; Bell Aliant, a division of Bell Canada; and Télébec, Société en commandite (Télébec); Amtelecom Limited Partnership and People's Tel Limited Partnership (small ILECs carrying on business as Eastlink) [Eastlink]; the Independent Telecommunications Providers Association (ITPA)⁷ on behalf of its small ILEC members; TBayTel; and TCI with respect to its incumbent serving territory in Quebec.

⁴ An emergency assistance request includes both 9-1-1 voice calls and, once deployed, text messages to 9-1-1. Emergency assistance requests will be based on IP technology, including Session Initiation Protocol (SIP) signaling.

⁵ The NENA i3 architecture standard is an end-to-end IP-based network architecture standard. This standard also introduces the concept of an Emergency Services IP network (ESInet), which is an IP-based network that connects TSPs with all public safety agencies that may be involved in an emergency. The Commission approved this standard in Telecom Decision 2015-531.

⁶ Groupe Maskatel LP includes La Compagnie de Téléphone de St-Victor, La Compagnie de téléphone Upton inc., Le Téléphone de St-Éphrem inc., and Xittel Telecommunications Inc.

⁷ The ITPA is the association representing independent local exchange carriers in British Columbia, Ontario, and Quebec.

Submissions from parties

Bell Canada

9. Bell Canada submitted that its small ILECs will be served by its designated NG9-1-1 POIs.
10. Bell Canada indicated that Northwestel had not yet undertaken a technical analysis to determine the locations of NG9-1-1 POIs in its incumbent territory. It submitted that there is no requirement to transition to NG9-1-1 in Northwestel's incumbent territory, since there are no PSAPs there that meet the NENA definition of a PSAP,⁸ including the one currently serving Yukon. Bell Canada submitted that while there are plans to establish a PSAP in Northwest Territories by the end of 2019, this PSAP would similarly not meet the NENA definition. Bell Canada further submitted that in order for NG9-1-1 networks to be implemented, the relevant 9-1-1 authority⁹ must complete civic addressing that is suitable for routing emergency requests and provide maps showing the boundaries of the emergency service zones.
11. In the case of Newfoundland and Labrador, Bell Canada submitted that work is under way to upgrade the PSAP to meet the NENA definition. While most of this work is the responsibility of the 9-1-1 authority, Bell Canada anticipates that the transition to NG9-1-1 in this PSAP will be completed prior to the decommissioning of the E9-1-1 network by 30 June 2023, at which time Newfoundland and Labrador will be served by Bell Canada's designated NG9-1-1 POIs.

Other parties

12. Eastlink indicated that it has contracted with Bell Canada to act as its E9-1-1 network provider and expects that Bell Canada will act as its NG9-1-1 network provider. Eastlink requested that the Commission refer to Bell Canada's submissions for the locations of its NG9-1-1 POIs.
13. The ITPA filed the locations that will be used for its small ILEC members' NG9-1-1 POIs should those members opt to self-provision their NG9-1-1 network functionalities. It indicated that its members are negotiating outsourcing agreements with Bell Canada as the neighbouring large ILEC for its members in Ontario and Quebec, and with TCI for CityWest Cable (North) Corp. in Prince Rupert, British Columbia. If those negotiations are successful, the relevant ITPA members will designate those large ILECs' NG9-1-1 POIs as their own.

⁸ According to Bell Canada, [NENA](#) defines a PSAP as follows: "A set of call takers, authorized by a governing body and operating under common management, which receives 9-1-1 calls and asynchronous event notifications for a defined geographic area and processes these calls and events according to a specified operational policy."

⁹ The 9-1-1 authorities govern PSAPs. In some cases in Canada, 9-1-1 emergency services are managed at the provincial or territorial level, and in others, they are managed at the municipal level.

14. TBayTel submitted that it is negotiating an outsourcing arrangement with Bell Canada for part or all of the NG9-1-1 network functionality, and that the parties have reached an agreement as to which of Bell Canada's NG9-1-1 POIs will be designated as TBayTel's. The locations of these POIs were provided in confidence to the Commission.
15. TCI initially filed the locations of its NG9-1-1 POIs designated for its incumbent serving territory in Alberta and British Columbia for the purposes of its incumbent serving territory in Quebec. However, TCI subsequently filed changes to the locations by designating its NG9-1-1 POIs as those provided by the NG9-1-1 network provider in Manitoba, Nova Scotia, Ontario, and Quebec, which the Commission understands to be Bell Canada. TCI submitted that these locations will be easier to access for the TSPs that operate in its Quebec incumbent serving territory.
16. The Commission did not receive any comments from other interconnecting TSPs in relation to these submissions from the 9-1-1 network providers.

Commission's analysis and determinations

Bell Canada

17. In Telecom Regulatory Policy 2019-66, the Commission stated that its regulatory approach with respect to the small ILECs and Northwestel is to establish frameworks that are, as much as possible, consistent with those of the large ILECs. In Telecom Regulatory Policy 2017-182, the Commission directed all ILECs to establish NG9-1-1 networks and to be ready to provide NG9-1-1 services by 30 June 2020, wherever PSAPs have been established. In Telecom Decision 2018-188, the Commission provided and confirmed definitions of primary and secondary PSAPs,¹⁰ neither of which make reference to the NENA definitions. Accordingly, while the Commission recognizes that there may be specific challenges associated with providing NG9-1-1 service in the North, it considers Bell Canada's argument that there are no PSAPs in Northwestel's incumbent territory that meet the NENA definition to be irrelevant. The Commission's understanding is that there is one PSAP covering Yukon and there are plans to establish a PSAP in Northwest Territories by the end of 2019.
18. The Commission therefore finds that Northwestel is under an obligation to establish NG9-1-1 in its incumbent serving territory, including NG9-1-1 POIs, wherever PSAPs have been established.

¹⁰ Telecom Decision 2018-188 refers to the following definition set out in Telecom Regulatory Policy 2016-165: "A primary PSAP is a PSAP to which 9-1-1 calls are routed directly as the first point of contact for all 9-1-1 calls. The primary PSAP contacts the appropriate agency to dispatch the emergency response. In cases where local authorities determine that certain emergency responses require specialized expertise to handle the 9-1-1 call, such as emergency medical services, 9-1-1 calls are transferred to a secondary PSAP."

19. Further, the Commission notes that the NENA definition quoted by Bell Canada is actually for an emergency communication centre. The company is inferring that the PSAP must be capable of providing enhanced service, that is, capable of receiving asynchronous event notifications (i.e. the automatic location and number information provided in E9-1-1). Bell Canada gave no indication as to why it chose to quote this definition in its submission when NENA also has definitions for PSAPs that are consistent with the Commission's definition.¹¹
20. With respect to Bell Canada's submission that the 9-1-1 authority must complete routable civic addressing and emergency zone boundary mapping, as both are needed for the provision of NG9-1-1, the Commission acknowledges the validity of these matters and considers that Northwestel should work in collaboration with the 9-1-1 authority to establish a transition plan for NG9-1-1. This plan should also include the locations of the proposed NG9-1-1 POIs. As set out in Telecom Regulatory Policy 2019-66, given the size of Northwestel's incumbent territory, the NG9-1-1 POIs for Northwestel, even if outsourced, should be located within its incumbent territory. The Commission advises Northwestel that should the timelines associated with the transition plan extend beyond the applicable timelines that the Commission has mandated, the company should file a request to have the relevant timelines extended, along with supporting rationale and justification.
21. In view of the above, the Commission reminds Northwestel that (i) the obligation to have NG9-1-1 networks ready by 30 June 2020 applies to all ILECs, including Northwestel, and (ii) consistency between all ILECs with respect to NG9-1-1 is of high importance in supporting the safety of all Canadians, regardless of which ILEC's incumbent territory they are located in. Further, the Commission **directs** Northwestel to file, for the Commission's consideration, a transition plan for the establishment of NG9-1-1 networks (including NG9-1-1 POIs) in its incumbent territory, wherever PSAPs have been established. The transition plan should consider all PSAPs in Northwestel's incumbent territory, both PSAPs that will be established by 30 June 2020 and any that may be established thereafter. Given the collaborative work required with the 9-1-1 authorities in Northwestel's territory, the Commission sets a deadline of **22 January 2020** for the filing of this transition plan.

Other parties

22. The Commission understands that Eastlink, the ITPA members, and TBayTel are actively negotiating outsourcing agreements with Bell Canada and TCI and that the negotiations, although not yet finalized, are progressing. The Commission notes that due to the ongoing negotiations, interconnecting TSPs have not filed any comments

¹¹ The NENA definitions, as per the [Master Glossary of 9-1-1 Terminology](#), are as follows. (i) PSAP: An entity responsible for receiving 9-1-1 calls and processing those calls according to a specific operational policy; (ii) Primary PSAP: A PSAP to which 9-1-1 calls are routed directly from the 9-1-1 Control Office; (iii) Secondary PSAP: A PSAP to which 9-1-1 calls are transferred from a Primary PSAP; and (iv) i3 PSAP: A PSAP that is capable of receiving IP-based signaling for delivery of emergency calls and for originating calls and is conformant to NENA-STA-010 and other specifications for such PSAPs.

with regard to the locations of NG9-1-1 POIs for the ITPA members. The Commission further notes that the framework set out in Telecom Regulatory Policy 2019-66 allows for significant changes to NG9-1-1 POIs, including changes to locations, with six months' prior notice to interconnecting TSPs.

23. In light of the above, the Commission **directs** Eastlink, the ITPA, and TBayTel to provide monthly status updates on their respective negotiations, starting **8 November 2019**, until agreements are reached and the Commission has been notified. In addition, the Commission reiterates its direction in Telecom Regulatory Policy 2019-66 that ILECs are to advise the Commission and affected interconnecting TSPs of any significant changes to the NG9-1-1 POIs, including changes in their number or location, at least six months prior to those changes taking effect.

Secretary General

Related documents

- *Next-generation 9-1-1 network design efficiencies*, Telecom Regulatory Policy CRTC 2019-66, 7 March 2019
- *New Brunswick 9-1-1 Bureau, on behalf of public safety answering point organizations – Application to review and vary Telecom Regulatory Policy 2017-182 regarding next-generation 9-1-1 services*, Telecom Decision CRTC 2018-188, 28 May 2018
- *Next-generation 9-1-1 – Modernizing 9-1-1 networks to meet the public safety needs of Canadians*, Telecom Regulatory Policy CRTC 2017-182, 1 June 2017
- *Tariff application and intercarrier agreement approval processes*, Telecom Decision CRTC 2016-165, 19 February 2016
- *CISC Emergency Services Working Group – Consensus report regarding a Next-Generation 9-1-1 network architecture standard for Canada*, Telecom Decision CRTC 2015-531, 30 November 2015
- *9-1-1 action plan*, Telecom Regulatory Policy CRTC 2014-342, 25 June 2014