

June 3, 2021

Mr. Claude Doucet
Secretary General
Canadian Radio-television and
Telecommunications Commission
Ottawa, Ontario
K1A 0N2

Dear Mr. Doucet:

Subject: Part 1 Application by the Province of New Brunswick for Clarification that ILECs may Deliver ESI-net Services to Points-of-Interconnection at Data Centres Not Located at Existing PSAPs

1. This application is made pursuant to Part 1 of the Canadian Radio-television and Telecommunications Commission Rules of Practice and Procedure. The Applicant requests the CRTC issue a clarification to the policy established for the delivery of next-generation 9-1-1 (NG9-1-1) calls by Independent Local Exchange Carriers (ILECs). In Decision 2017-182 the Commission stated that ILECs must connect their NG9-1-1 networks only to primary Public Safety Answering Point (PSAP) premises in their operating territories (this was subsequently expanded to include secondary PSAP connections in Telecom Decision 2018-188). Specifically, the Province seeks a clarification that ILECs may connect their NG9-1-1 networks to demarcation points determined by the relevant 9-1-1 Governing Authorities; and that these demarcation points need not be located at PSAP premises.
2. Bell Canada will be the NG9-1-1 network provider to New Brunswick. As such, the Province is primarily interested in a clarification that would apply to Bell. However, given the Commission's national NG9-1-1 interconnection framework, the clarification requested could equally apply to SaskTel and TELUS. Once a clarification is issued by the Commission, the Province expects that the Bell NG9-1-1 Tariff (and corresponding agreement), will be written to accommodate the connection of Bell's NG9-1-1 network to two (2) physically distinct and redundant data centres at demarcation points to be determined by the Province.

3. The Minister of Justice and Public Safety has the legislated responsibility to designate the PSAPs and their locations. The Government of New Brunswick has approved a strategic framework that will centralize and host technology to support PSAPs. The Province will be implementing an emergency services delivery technology model that will require Bell Canada to deliver ESInet services to two data centres that are not located at existing PSAPs. However, the Province understands that Bell Canada interprets the policy established in Decision 2017-182 as only permitting Bell to deliver ESInet traffic to existing PSAPs. It is therefore critical that the Commission issue a clarification as soon as possible.
4. The Province is not seeking to include any of the costs incurred beyond the demarcation points in the Tariff to be filed by Bell. Costs incurred beyond the demarcation points will be the responsibility of the Province. The Tariff to be filed by Bell should include the costs of delivering ESInet traffic to the demarcation points.

Background

5. In Telecom Regulatory Policy CRTC 2017-182, *Next-generation 9-1-1 – Modernizing 9-1-1 networks to meet the public safety needs of Canadians* (Decision 2017-182), the Commission directed the ILECs “connect their NG9-1-1 networks to the primary PSAPs in their operating territories.”¹ The Commission further stated “...the boundaries of the NG9-1-1 network are defined as beginning at and including the points of interconnection between the originating networks and the NG9-1-1 networks, and ending at the demarcation points between the NG9-1-1 networks and the primary PSAPs.”² In Telecom Decision CRTC 2018-188, *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*, the Commission varied Decision 2017-182 such that ILECs are directed to “connect their NG9-1-1 networks to the primary and secondary PSAPs in their operating territories”.³ Since the issuance of these Decisions, participants in the CRTC Interconnection Steering Committee Emergency Services Working Group (ESWG), have

¹ Decision 2017-182, paragraph 71.

² Ibid, paragraph 121.

³ Decision 2018-188, paragraph 50.

discussed the feasibility of some provinces and municipalities using a managed and/or hosted solution as part of their PSAP footprint.

6. In Telecom Decision CRTC 2018-217, CISC Emergency Services Working Group consensus items – Next-generation 9-1-1 technical and operational considerations and trial logistics (Decision 2018-217), the Commission provided the following comment regarding a potential managed/hosted service arrangement:

Although a managed and/or hosted service arrangement is not defined in the ESWG reports, the Commission understands that this type of arrangement could be one whereby NG9-1-1 network providers offer a service for PSAP functions (e.g. call and media handling and logging, computer-aided dispatch, security and system management) either by managing these functions for PSAPs that own the equipment or by providing a hosted environment.⁴

7. As explained more fully below, during recent discussions at ESWG, some parties have expressed the view that Decision 2017-182 explicitly directs the ILECs to only connect their NG9-1-1 networks to PSAP premises. Other parties have suggested that the policy established in Decision 2017-182 should accommodate ILECs connecting their NG9-1-1 networks to a hosted/managed solution and at a location that may or may not be that of an existing PSAP premises; and that the choice should be at the discretion of the 9-1-1 Governing Authority.⁵ CRTC staff on occasion have stated its support for the narrow interpretation of Decision 2017-182 and have advised parties that they should seek explicit clarification from the CRTC that ILECs would be permitted to connect their NG9-1-1 networks to demarcation points that may, or may not be, located at an existing PSAP premises.
8. In a January 2021 contribution, ESCO0671, *Hosted PSAP Considerations for Canada* (submitted as part of the joint TIFs 90, 81, 82 and 83 discussion), it is noted that currently there is no mechanism to evaluate or facilitate ESInet requests from non-PSAP/Agency/NG9-1-1 provider organizations who wish to establish ESInet connectivity for the purpose of establishing hosted call handling services for the Canadian PSAP market. This

⁴ Decision 2018-217, paragraph 24, footnote 11.

⁵ In the case of New Brunswick, this would be at the discretion of the Minister of Public Safety and Solicitor General pursuant to the E9-1-1 Services Agreement (August 2007) between the Province and Aliant.

would preclude Call Handling system vendors, system integrators, or other 3rd parties from setting up their own hosted call handling service to offer to PSAPs without first partnering with a PSAP or NG9-1-1 provider.⁶

9. Previously in 2019, as recorded in ESTF0090, *NG9-1-1 Reliability, Resiliency, and Security*, SaskTel noted the demarcation point for the province's 3 PSAPs is centralized and that the physical demarcation point is not located at one of the PSAPs.⁷
10. TELUS, in ESCO0637, stated that it does support the language within TRP 2017-182 which would indicate that should a PSAP opt for a hosted PSAP architecture, this should still be supported at a single demarcation and all communications and network connectivity from the hosted solution back to the PSAPs physical location would be considered part of the PSAP's Private Network Local Area Network and not the ESInet.
11. Bell, in ESCO0642, indicated that Call Handling Functional Element (CHFE) can be hosted either at the NG9-1-1 network provider's Data Centre or at an existing PSAP site.
12. Reviewing the contributions to ESWG going back to 2019, it is apparent that ESWG members have attempted to clarify on numerous occasions how a hosted/managed model could operate. These contributions include: ESCO0617 (Atlantic 9-1-1 Provincial Authorities), ESCO0635 (NB911), ESCO0637 (TELUS), ESCO0642 (Bell), ESCO0658 (Bell), ESCO0650 (Sasktel), ESCO0632 (Sasktel), ESCO0654b (Solacom and E-Comm 911), and ESCO0671(TIF90 Subgroup). The common themes in these contributions are the recognition hosted models are important to the furtherance of PSAP Emergency Services Operation, and the application of the various models must be validated with respect to CRTC Policy.
13. More recently, in April 2021, following a joint TIFs 90, 81, 82 and 83 call, it was concluded after much discussion that interconnection by an ILEC at a data centre that is not located at a PSAP, would presumably not be allowed under the CRTC NG9-1-1 policy.⁸ Moreover, an

⁶ CESCO0671, line 240.

⁷ ESTF0090, *NG9-1-1 Reliability, Resiliency, and Security*. Serial 31, August 28, 2019.

⁸ ESTFO090, Serial 74, April 28, 2021.

action was recorded for PSAPs considering a hosted model to submit a Part 1 Application to the Commission to seek clarification.

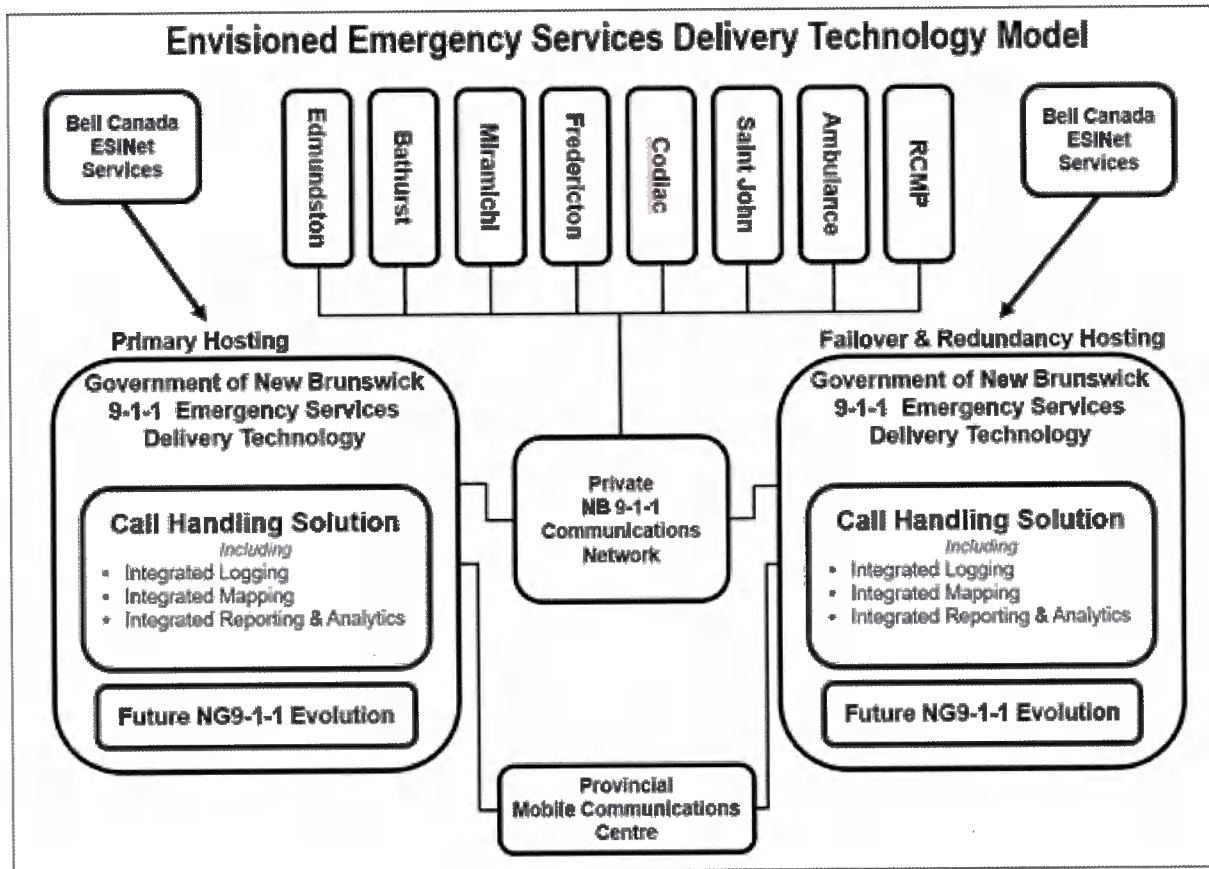
14. While the Province understands the narrow interpretation of Decision 2017-182, the Province disagrees the Decision would only permit Bell to deliver ESInet traffic to existing PSAP premisses in its operating territory. Expecting demarcation points to be placed at PSAPs may have made sense under the existing E9-1-1 architecture and at the time of writing Decision 2017-182, however this is no longer the case. With the new IP-based NG9-1-1 networks, the demarcation points need not be located at a PSAP premise. There is an opportunity to centralize the ESInet points of interconnection in New Brunswick. A similar opportunity exists for other jurisdictions. In Saskatchewan, SaskTel has indicated that the demarcation point for the province's 3 PSAPs is centralized and that the physical demarcation point is not located at one of the PSAPs. Similarly in British Columbia, as part of the TIF 88 trial, TELUS delivered ESInet connectivity to E-Comm at its Kamloops Data Centre, which is not the location of a PSAP.
15. Given the lengthy discussion at ESWG, and the approaches taken by SaskTel and TELUS in contrast to the interpretation of Decision 2017-182 by Bell, a clarification by the Commission that ESInet traffic may be delivered to demarcation points determined by the 9-1-1 Governing Authority would be beneficial to all parties involved in the NG9-1-1 transition process.

New Brunswick's Planned Implementation of NG9-1-1

16. The Province will be entering a long-term agreement with a vendor capable of providing a Managed Services arrangement whereby the vendor will provide services related to the technologies required to support the NB 9-1-1 Program and its transformation from the existing Enhanced 9-1-1 environment to the new NG9-1-1 environment, in a fashion that supports its development, establishment and expected evolution for the next ten or more years. This Program transformation envisions the inclusion and provisioning of a Next Generation 9-1-1 solution that includes:

- Hosted services of a Call Handling solution, including the connection to the ESInet and the elements and systems required by PSAPs to conduct the business of 9-1-1 service delivery. The hosted services of the Call Handling solution should include integrated mapping, voice and data logging and recording, and reporting and analytics capabilities. This needs to include all environments to support this multi-year arrangement, including support and maintenance of all phases for peripheral environments containing servers, databases, firewalls, storage, high availability, (resilience, redundancy, security, cyber security and disaster recovery).
- Integrated Managed Infrastructure Services (IMI) – includes management of Operating Systems, monitoring and middleware software support. IMI services are expected during the environment build out, implementation and ongoing support,
- Application Maintenance and Support Services (AMS) - includes incident management, application problem management, database management, applications operations management and release management, and
- Implementation Services – include complete configuration, training, implementation and deployment of the proponent solution to all identified 9-1-1 service delivery agencies within New Brunswick.

17. The planned implementation model is illustrated below.



18. Currently Bell (Aliant) delivers 9-1-1 calls to 6 primary PSAPs in the Province, and 2 secondary PSAPs are also connected to the Bell E9-1-1 network, as designated by the Minister pursuant to the E 9-1-1 services agreement between Aliant and the Province.⁹ The existing agreement contemplates that the Minister may designate more or less than 6 PSAPs. The number of delivery points for 9-1-1 traffic in New Brunswick is at the sole discretion of the Minister.
19. With the launch of NG9-1-1, the Province intends to designate 2 points of interconnection between Bell and the Province for the delivery of NG9-1-1 calls. These 2 points of interconnections will not be located at existing PSAPs.
20. For purposes of the NG9-1-1 Tariff (and corresponding agreement) to be filed by Bell, the Province does not seek to include the costs of the hosted model in the tariff. Without prejudice to the Province's eventual comments on the tariff when it is filed by Bell, the Province expects the tariff structure to be the same for the delivery of NG9-1-1 calls to a demarcation point at a data centre, as it would for the delivery of calls to the premises of a PSAP. The New Brunswick centralized managed service will carry traffic for multiple PSAPs/jurisdictions from the 2 points of interconnection with Bell, thereby enabling certain efficiencies in the delivery of emergency calls including reducing the number of points of interconnection between Bell and the Province from 8 to 2.
21. The intent of this application is to seek clarity from the Commission that the Bell NG9-1-1 Tariff (and corresponding agreement) should be written to accommodate connection of the Bell NG9-1-1 network to redundant data centres at demarcation points that may not be physically located at a PSAP premises, as determined by the Province, rather than the narrow prescription in Decision 2017-182 that ILECs must only connect their NG9-1-1 networks to PSAP premises in their operating territories. The Province is seeking the Commission's clarification prior to the filing of the NG9-1-1 tariff by Bell because the Province intends to imminently begin a procurement process for the implementation of its emergency services delivery technology model, and well in advance of the NG9-1-1 tariff approval process. There is a small pool of vendors capable of providing the technology solution and the

⁹ E 9-1-1 Services Agreement, August 2007.

Province believes these vendors will also be involved with NG9-1-1 deployments across North America. In order to meet the Commission's timelines for the migration to NG9-1-1, the Province must immediately move forward with its plans. Clarity regarding the points of interconnection is essential prior to the commencement of the procurement process in order that potential vendors may accurately respond.

Conclusion

22. As recorded in the activity diary for ESTF0090, participants at ESWG have concluded that interconnection of ILEC NG9-1-1 networks to a data centre that is not located at a PSAP premise is not allowed pursuant to Decision 2017-182. Despite this conclusion, centralized points-of-interconnection at data centres at locations other than PSAP premisses have been used in British Columbia and Saskatchewan.

23. New Brunswick will be implementing an emergency services delivery technology model that will require Bell Canada to deliver ESInet services to two data centres that are not located at existing PSAP premisses. Bell Canada believes it is not allowed, pursuant to Decision 2017-182, to deliver ESInet traffic anywhere other than an existing PSAP premisses. In order for the Province to implement its emergency services technology model, a clarification confirming that Bell may deliver ESInet traffic to demarcation points determined by the Province is requested as soon as possible.

Sincerely,



Diane Pelletier
Director, NB 9-1-1 Bureau
Department of Justice and Public Safety