



May 23, 2018

VIA Electronic Intervention Comment Form

Mr. Claude Doucet
Secretary-General
CRTC
1 Promenade du Portage
Les Terrasses de la Chaudière
Central Building
Gatineau, QC
K1A 0N2

Dear Mr. Doucet:

Subject: Next Generation 9-1-1 network design efficiencies – CCSA Comment

1. The Canadian Communication Systems Alliance (“CCSA”) speaks for independent communications distributors – smaller broadcasting distribution companies, telephone companies and ISPs – across Canada. CCSA represents more than 110 companies operating from sea to sea to sea, including across the North.
2. CCSA’s membership includes both SILECs and CLECs, including small Type IV CLECS.
3. With respect to CCSA’s SILEC members, CCSA has reviewed, in draft, the ITPA’s intervention in this proceeding and supports the ITPA’s comments.
4. The balance of CCSA’s commentary in this intervention relates to the role of its CLEC members as TSPs that participate in the NG9-1-1 system.
5. The reality is that universal IP-based obligations cannot be respected by the entire industry without significant investments including switch replacements. That is, without some form of financial assistance to smaller TSPs, the co-existence of IP and legacy networks is likely to be around for many years to come.

6. It is therefore very important that the CRTC recognize this fact and ensure that existing, proven 9-1-1 and E9-1-1 solutions remain operational for many years to come or that NG9-1-1, within itself, be compatible with legacy environments.
7. Generally, CCSA's comments reflect three key points:
 - the NG9-1-1 system should capitalize, whenever possible, on the existing, proven and stable interconnection arrangements for 9-1-1 and E9-1-1 services: to the extent possible, transition to NG9-1-1 should essentially be transparent to smaller TSPs who rely on the ILEC network operators to provision 9-1-1 service;
 - the NG9-1-1 system should recognize the existence of the many existing legacy, non-IP networks such that existing 9-1-1 and E9-1-1 systems remain functional for many years to come. NG9-1-1 system design should be backwards-compatible, to the extent possible, with those legacy network solutions; and
 - the NG9-1-1 system should to the extent possible, create simplicity and efficiency with respect to the number of points of interconnection required of originating networks, for example, following the existing LIR model.
8. CCSA's responses to the Commission's questions in TNC CRTC 2018-105 are set out in Appendix A hereto.
9. CCSA thanks the Commission for the opportunity to provide these comments.

Sincerely,



Christopher J. Edwards
Vice-President, Regulatory Affairs

CRTC Question 1

The report indicates that the i3 standard specifies that the responsibility for the LIS function resides with the TSPs that operate originating networks. However, NG9-1-1 network providers could offer a hosted LIS service to these TSPs for these functions.

- a. Do you agree that in Canada the provision of the LIS functionality should be the responsibility of the TSPs that own and operate originating networks? Justify your response with supporting evidence and rationale.
- b. Comment on the feasibility, pros, and cons of a model whereby the LIS is offered as a hosted service by the NG9-1-1 network providers to the TSPs that own and operate originating networks.
- c. Should TSPs have the option of either providing their own LIS functionality or subscribing to the NG9-1-1 network providers' proposed hosted LIS functionality? Justify your response with supporting evidence and rationale.
- d. Should NG9-1-1 network providers be obligated to provide a tariffed wholesale hosted LIS service to TSPs and, if so, should the cost of providing the hosted LIS service form part of their NG9-1-1 tariffed network access rate or be a separate tariffed rate for TSPs that subscribe to the hosted LIS service?

CCSA Answer

- a) CCSA understands that, under the proposed architecture, LIS functionality should be the responsibility of originating network operators. CCSA supports that approach. However, nothing should prevent an originating network provider, including a SILEC, from outsourcing the LIS function to a third party.
- b) CCSA supports availability of a hosted LIS service and considers that such a service would be an attractive option for many of the smaller TSPs it represents. A centralized LIS function available for use by all TSPs could provide greater stability and security for this aspect of NG9-1-1 service.

APPENDIX A – RESPONSES TO COMMISSION QUESTIONS

- c) CCSA's member TSPs are diverse in terms of size, resources and technology. To achieve greatest efficiency, those TSPs should be able to choose whether to develop their own LIS functionality, engage a third party to do this work or work through hosted ILEC LIS service.
- d) ILEC Network providers should be obligated to provide a tariffed wholesale hosted LIS service to TSPs. Given CCSA's recommendation that TSPs should be able to choose between self-managed LIS or a hosted service, CCSA favours a separate tariffed rate for the service that would be payable only by those TSPs that choose to subscribe to the hosted service.

CRTC Question 2

The report indicates that the responsibility for, maintenance of, and ownership of end-user location data used by the LIS function resides with the TSPs that operate originating networks.

- a. Do you agree that the responsibility for, maintenance of, and ownership of end-user location data used by the LIS function should remain with each TSP that serves the relevant end-users? Justify your response with supporting evidence and rationale.
- b. What requirements should be imposed on TSPs with regard to the provision and maintenance of end-user location data to the LIS under the scenarios whereby the LIS is provided by TSPs, or provided to TSPs as a hosted service by NG9-1-1 network providers?

CCSA Answer

- a) CCSA agrees that originating network service providers should be responsible for providing the end-user location data used by the LIS function, as they are today in the E9-1-1 context. Only those companies have access to the necessary information.
- b) The requirements for TSPs should mirror those that exist today for E9-1-1.

CRTC Question 3

Are there any other policy considerations in regard to the provision of the LIS functionality and its data that the Commission should address?

CCSA Answer

CCSA has no further comments regarding the provision of LIS functionality.

CRTC Question 4

The report indicates that the i3 standard places the ADR function outside the ESInet, with the responsibility for the ADR function and its data residing with the TSPs that operate originating networks. However, NG9-1-1 network providers could offer a hosted ADR service to these TSPs for these functions.

- a. Do you agree that in Canada the ADR functionality should be the responsibility of the TSPs that own and operate originating networks? Justify your response with supporting evidence and rationale.
- b. Comment on the feasibility, pros, and cons of a model whereby the ADR is offered as a hosted service by NG9-1-1 network providers to TSPs.
- c. Should TSPs have the option of either providing their own ADR functionality or subscribing to the NG9-1-1 network providers' proposed hosted ADR functionality? Justify your response with supporting evidence and rationale.
- d. Should the NG9-1-1 network providers be obligated to provide a tariffed wholesale hosted ADR service to TSPs and, if so, should the cost of the hosted ADR service form part of their NG9-1-1 tariffed network access rate, or be a separate tariffed rate for TSPs that subscribe to the hosted ADR service?

CCSA Answer

CCSA's comments regarding ADR are substantially the same as for the LIS function. Again, CCSA favours an option for TSPs to manage this information on their own or to subscribe to and ADR service hosted by the ILECs. For the same reasons set out in CCSA's response to Question 1, CCSA favours a separate tariffed wholesale rate for this aspect of NG9-1-1 service.

CRTC Question 5

The report indicates that the responsibility for, maintenance of, and ownership of end-user subscriber data used by the ADR function resides with the TSPs that operate originating networks.

- a. Do you agree that the responsibility for, maintenance of, and ownership of end-user subscriber data used by the ADR function should remain with each TSP that serves the relevant end-users? Justify your response with supporting evidence and rationale.
- b. What requirements should be imposed on TSPs with regard to the provision, validation, and maintenance of end-user subscriber data to the ADR under the scenarios whereby the ADR is provided by the TSPs or provided to TSPs as a hosted service by the NG9-1-1 network providers?

CCSA Answer

CCSA's comments regarding responsibility for ADR provision and maintenance are substantially the same as those it has given for the LIS function.

CRTC Question 6

Are there any other policy considerations in regard to the provision of the ADR functionality and its data that the Commission should address?

CCSA Answer

CCSA has no further comments regarding the provision of ADR functionality.

CRTC Question 7

The report indicates that due to the fact that NG9-1-1 is an evolving framework that includes a number of standards and interface specifications, some of which have yet to be finalized, no core network components that could be shared to take advantage of economies of scale have been identified at this time. Identify specific core NG9-1-1 network components that could be shared to take advantage of economies of scale that may not have been considered in the report or that were already explored in the proceeding that led to Telecom Regulatory Policy 2017-182, along with supporting evidence and rationale.

CCSA Answer

CCSA has no recommendations to make in response to this question.

CRTC Question 8

The report recommends that an NG9-1-1 network provider may choose to deploy more than two NG9-1-1 POIs in its serving territory, depending on geography, resiliency, and other considerations. However, the report did not recommend where the NG9-1-1 POIs should be established, how many POIs there should be in NG9-1-1 network providers' serving territories, or the criteria for making interconnection determinations.

Comment on whether, in light of the transition to NG9-1-1, the Commission should maintain or depart from its existing IP voice interconnection policies (referred to in paragraph 5 above) with regard to where ILECs, as NG9-1-1 network providers, are required to establish POIs for TSPs operating originating networks to exchange NG9-1-1 traffic with the NG9-1-1 network. Provide supporting evidence and rationale, including your views on

- a. whether the Commission should set out criteria regarding how NG9-1-1 interconnection regions (e.g. per LIR, per province, or per ESInet) should be defined;
- b. how many NG9-1-1 POIs should be made available in each proposed interconnection region, based on which criteria, and who should determine this number and criteria (e.g. the Commission, NG9-1-1 network providers, TSPs, or NG9-1-1 network providers and TSPs through negotiations); and
- c. in which specific municipalities or areas of the country NG9-1-1 POIs should be made available.

CCSA Answer

a) CCSA requests the Commission to give careful consideration of the costs that may be imposed on smaller CLECs and TSPs by various criteria regarding interconnection regions. CCSA notes that use of the LIR criterion has been beneficial in lowering the interconnection costs of smaller TSPs and may be a useful model for NG9-1-1 system design.

APPENDIX A – RESPONSES TO COMMISSION QUESTIONS

- b) CCSA supports continued Commission oversight based on experience with and evolving needs of the NG9-1-1 system.
- c) CCSA has no specific recommendations at this time regarding municipalities or geographic areas that require NG9-1-1 POIs.

CRTC Question 9

The report recommends that TSPs that operate originating networks should interconnect at a minimum of two completely geo-diverse POIs within each interconnection region. Do you agree with this recommendation? Justify your response with supporting evidence and rationale, and include a proposed definition of geo-diversity with regard to POIs.

CCSA Answer

Subject to its comments in response to Question 8(a), CCSA agrees with this recommendation.

CRTC Question 10

The report does not specifically discuss NG9-1-1 POI arrangements between TSPs and small ILECs as the NG9-1-1 network providers in their serving territories. In light of your responses to the questions above, would the same approach apply to the establishment of POIs in the small ILECs' serving territories, or would special considerations need to be taken into account? Justify your response with supporting evidence and rationale.

CCSA Answer

As a general proposition Commission to give careful consideration of the costs that may be imposed on smaller CLECs and TSPs by various criteria regarding interconnection regions, regardless of whether interconnection is with a large or small ILEC. The NG9-1-1 system should to the extent possible, create simplicity and efficiency with respect to the number of points of interconnection required of originating networks, for example, following the existing LIR model.

CRTC Question 11

The report recommends that all calls and associated data communications presented to a given NG9-1-1 POI should be localized, i.e. associated with the domain of the serving NG9-1-1 network provider (e.g. a call originating in Vancouver must be delivered to one of TCI's NG9-1-1 POIs). Do you agree with this recommendation? Justify your response with supporting evidence and rationale.

CCSA Answer

CCSA has no comment on this recommendation.

CRTC Question 12

The report indicates that public Internet-based interconnection will not be supported for security and safety reasons. Do you agree with this statement? Justify your response with supporting evidence and rationale.

Answer

CCSA has no comment on this question.

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