



Telecom Notice of Consultation CRTC 2016-116

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Notice of hearing

16 January 2017
Gatineau, Quebec

Establishment of a regulatory framework for next-generation 9-1-1 in Canada

Deadline for submission of interventions: 20 May 2016

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The Commission initiates a proceeding to establish a regulatory framework for next-generation 9-1-1 (NG9-1-1) in Canada that will, among other things, take into account the evolving public safety needs of Canadians. NG9-1-1 will provide Canadians with access to new and innovative 9-1-1 services and capabilities.

While the broader context pertaining to NG9-1-1 in Canada will be examined during the proceeding (including the roles of stakeholders, such as provincial, territorial, and municipal governments), the Commission's determinations will necessarily be limited to issues that fall within the Commission's jurisdiction under the Telecommunications Act. These include the roles and responsibilities of telecommunications service providers, the evolution of existing 9-1-1 networks, and the means by which NG9-1-1 services and network functionality will be funded and implemented.

The Commission aims to ensure that the provision of NG9-1-1 will result in maximum benefits for Canadians, including the continued provision of reliable and effective 9-1-1 services.

*The Commission will hold a public hearing, beginning on **16 January 2017 at 9:00 a.m.**, at the **Conference Centre, Phase IV, 140 Promenade du Portage, in Gatineau, Quebec.***

Introduction

1. Effective access to emergency services in Canada is critical to the health and safety of Canadians, and is an important part of ensuring that Canadians have access to a world-class communication system.
2. The *Telecommunications Act* (the Act), which gives the Commission broad powers to regulate the provision of telecommunications services, affirms that telecommunications

Canada

perform an essential role in the maintenance of Canada's identity and sovereignty, and sets out several policy objectives,¹ including the following:

- facilitating the development of a telecommunications system that serves to safeguard, enrich and strengthen the social and economic fabric of Canada and its regions;²
 - rendering reliable and affordable telecommunications services of high quality accessible to Canadians in both urban and rural areas in all regions of Canada;³
 - enhancing the efficiency of Canadian telecommunications;⁴
 - stimulating research and development in Canada in the field of telecommunications and encouraging innovation in the provision of telecommunications services;⁵
 - responding to the economic and social requirements of users of telecommunications services;⁶ and
 - contributing to the protection of the privacy of persons.⁷
3. Over time, the Commission has established many regulatory measures so that telecommunications networks provide reliable and effective access to 9-1-1 services in Canada.
 4. An estimated 96% of Canada's population currently has access to either Basic 9-1-1 or Enhanced 9-1-1 service through wireline, wireless, and voice over Internet Protocol (VoIP) telephone services⁸ wherever a 9-1-1 call centre, also known as a public safety answering point (PSAP), has been established. Citizens in areas where a PSAP has not yet been established typically dial seven- or ten-digit telephone numbers to seek emergency assistance directly from emergency responders, such as police, fire, or ambulance.
 5. In the coming years, telecommunications networks across Canada, including the networks used to deliver 9-1-1 calls, will continue to transition to Internet Protocol (IP) technology. This transition is expected to have a major impact on the networks, systems, and arrangements used to provide 9-1-1 services.

¹ See section 7 of the Act.

² See paragraph 7(a) of the Act.

³ See paragraph 7(b) of the Act.

⁴ See paragraph 7(c) of the Act.

⁵ See paragraph 7(g) of the Act.

⁶ See paragraph 7(h) of the Act.

⁷ See paragraph 7(i) of the Act.

⁸ Basic 9-1-1 service enables callers to be connected to 9-1-1 operators in public safety answering points (PSAPs), who dispatch the appropriate emergency responders. Enhanced 9-1-1 service includes Basic 9-1-1 service, but also automatically provides PSAP 9-1-1 operators with the telephone number and estimated location of the caller.

6. In paragraph 7 of Telecom Regulatory Policy 2014-342,⁹ the Commission stated that the telecommunications service providers (TSPs) under its jurisdiction should be well-positioned to play a role in enabling Canadians to access new, enhanced, and innovative 9-1-1 services with IP-based capabilities, otherwise referred to as next-generation 9-1-1 (NG9-1-1) services. The Commission also stated its intent to enhance existing access to 9-1-1 services, and to conduct a comprehensive examination of NG9-1-1 in order to establish an NG9-1-1 regulatory framework.
7. With NG9-1-1,¹⁰ citizens in need of emergency assistance could send a text message, or transmit photos, videos, and other types of data to 9-1-1 operators, in addition to making traditional voice 9-1-1 calls using wireline, wireless, or VoIP telephone services. For example, these citizens could stream video from an emergency incident, send photos of accident damage or a fleeing suspect, and send personal medical information, which could greatly aid emergency responders.
8. NG9-1-1 is expected to benefit 9-1-1 stakeholders, including PSAPs and the emergency responders they dispatch, by enabling them to keep pace with citizens' evolving emergency communications needs and expectations. NG9-1-1 is also expected to provide these organizations enhanced tools, such as the ability to transfer calls between each other seamlessly, allowing for more effective and efficient responses.
9. NG9-1-1 networks¹¹ are expected to replace aging 9-1-1 telecommunications equipment, some of which is nearing the end of its life cycle,¹² to create a more modern, flexible, and resilient 9-1-1 system. The evolution to NG9-1-1 is expected to be a complex and costly undertaking that will occur gradually over a number of years.

Background

The routing of 9-1-1 calls

10. When 9-1-1 calls¹³ are made in Canada today, they flow first through TSPs' originating networks, then specialized 9-1-1 networks, and then are delivered to local PSAP systems. These three areas are further defined below.

⁹ This decision sets out the Commission's 9-1-1 action plan, which includes key initiatives aimed at enhancing Canadians' access to existing 9-1-1 services and facilitating the transition to NG9-1-1 services.

¹⁰ For the purpose of this proceeding, "NG9-1-1" refers to the NG9-1-1 services provided to Canadians by TSPs, including the methods by which Canadians contact and send ancillary information to PSAPs, the underlying networks used to provide these services, and the services provided by the PSAPs themselves. However, the Commission's determinations resulting from this proceeding will be limited to TSPs' services and network(s), since PSAPs fall outside the Commission's jurisdiction.

¹¹ For the purpose of this proceeding, 9-1-1 networks include all equipment, transmission facilities, databases, and systems between the 9-1-1 point of interconnection of TSPs' originating networks and the 9-1-1 network, up to the demarcation point of the 9-1-1 network with the PSAP.

¹² In recent CRTC Interconnection Steering Committee's (CISC) Emergency Services Working Group (ESWG) reports and applications submitted to the Commission, 9-1-1 network providers have indicated that certain aging 9-1-1 equipment and facilities will no longer be supported by manufacturers or vendors.

¹³ Throughout this notice, "9-1-1 calls" refers to wireline, wireless, or VoIP calls, as well as other means of requesting 9-1-1 assistance, such as Text Messaging with 9-1-1.

11. 9-1-1 calls are first routed through TSPs' originating networks. These networks are shared, meaning that 9-1-1 calls share the network with other regular telephone calls and the rest of the TSPs' traffic related to other telecommunications services.
12. Once the calls have been routed through TSPs' originating networks, they are routed to specialized 9-1-1 networks. These networks are currently provided and maintained by incumbent local exchange carriers (ILECs), also known as 9-1-1 network providers, within their serving territories.¹⁴ 9-1-1 networks provide enhanced functionality and reliability, while reducing the risk of congestion for emergency communications, since they carry only 9-1-1-related traffic. 9-1-1 networks comprise the components and transmission equipment required to route 9-1-1 calls and ancillary information, such as the caller's telephone number and location, from TSPs' originating networks to the appropriate local PSAP.
13. Local PSAPs have their own internal systems composed of hardware and software used to receive 9-1-1 calls, display caller information, and dispatch emergency responders. PSAPs' systems fall outside the Commission's jurisdiction, as explained below.

Jurisdictional considerations

14. The provision of 9-1-1 services throughout Canada is complex and requires coordination between various parties, including TSPs; 9-1-1 network providers; and provincial, territorial, or municipal governments.
15. The Commission's role is to exercise regulatory oversight over TSPs' originating networks and 9-1-1 network providers' specialized 9-1-1 networks. This oversight includes the establishment and enforcement of national 9-1-1 policies, standards, conditions of service, and eligibility to operate, as well as the approval of 9-1-1 tariffs and agreements.
16. Provincial and territorial governments are responsible for emergency responders, as well as for the establishment and management of the primary and secondary PSAPs that dispatch them.¹⁵ In many cases, these governments have delegated the responsibility for PSAPs and emergency responders to municipalities. Internal policies, procedures, and standards for PSAPs and emergency responders are therefore not determined by the Commission, although there exists national collaboration and coordination through the CRTC Interconnection Steering Committee's (CISC) Emergency Services Working Group (ESWG) if the policies, procedures, and standards are directly related to the services provided by TSPs, including 9-1-1 network providers.¹⁶

¹⁴ 9-1-1 network providers include Bell Canada, CityWest Telephone Corporation, MTS Inc., Northwestel Inc., Saskatchewan Telecommunications, TBayTel, and TELUS Communications Company.

¹⁵ 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.

¹⁶ The ESWG is an open forum composed of TSPs, including 9-1-1 network providers, PSAPs, and 9-1-1 industry specialists. The ESWG was formed to address issues that relate to the provision of 9-1-1 services, such as the technical and operational implementation of 9-1-1 services, as assigned by the Commission or as requested by stakeholders. For more information, see the CISC section of the Commission's website at www.crtc.gc.ca.

Current 9-1-1 regulatory framework

17. Consistent with its mandate, the Commission has, over the years, put in place regulatory measures so that reliable and effective access to 9-1-1 services is available in Canada. These regulatory measures apply to many 9-1-1 services, including wireline, wireless, and nomadic VoIP 9-1-1 services.¹⁷ For Canadians who are Deaf, hard of hearing, or have a communication disability, the Commission has also established regulatory measures requiring the provision of access to 9-1-1 services through Short Message Service (SMS) text messaging (Text Messaging with 9-1-1 service), teletypewriter (TTY) relay service, IP relay service,¹⁸ and video relay service.¹⁹ All of these services are referred to in this notice as “existing 9-1-1 services.”
18. Regarding TSPs’ originating networks, the Commission has mandated TSPs to provide Canadians who subscribe to local telephone services with access to 9-1-1 services wherever a local PSAP has been established. Additionally, TSPs are to provide 9-1-1 service to end-customers ensuring, to the extent technically feasible, that the appropriate end-user information is provided to the Automatic Location Identification (ALI) database to the same extent as that provided by the ILEC.²⁰ Wireless service providers are required to provide wireless Enhanced 9-1-1 service to their subscribers in communities where wireless Enhanced 9-1-1 network access service is available from an ILEC.²¹
19. Regarding the 9-1-1 networks, the Commission has mandated the ILECs, including the small ILECs, to provide competitive local exchange carriers (CLECs) and wireless carriers with a wholesale 9-1-1 access service that enables them to route 9-1-1 calls and ancillary information over 9-1-1 networks. The Commission also regulates the rates, terms, and conditions set out in the ILECs’ wholesale 9-1-1 access service tariffs, and in the 9-1-1 agreements between the 9-1-1 network providers and CLECs or wireless carriers.²² To fulfill their obligation to provide a wholesale 9-1-1 access service, many small ILECs have chosen to enter into commercial agreements with larger ILECs, which provide the small ILECs with all or part of the 9-1-1 network functionality, so that the small ILECs can meet their obligation to provide both their retail and wholesale customers with access to 9-1-1 service.

¹⁷ Nomadic VoIP service enables callers to access telephone services using any high-speed Internet connection from any location. Nomadic VoIP service includes Basic 9-1-1 service and not Enhanced 9-1-1 service, because there is no fixed address to provide to PSAP 9-1-1 operators. The mobility of nomadic VoIP service makes it harder for TSPs to pinpoint the location of a 9-1-1 caller in order to provide that information to 9-1-1 operators.

¹⁸ In an IP relay call, a person with a hearing or speech disability communicates using text message with a relay operator via the Internet. The relay operator voices the text messages to a person without such a disability.

¹⁹ Video relay service enables people to conduct telephone calls using sign language by connecting a sign language user with another party via an operator who can interpret between sign language and spoken language. This service is expected to be available on a limited basis in the fall of 2016.

²⁰ See paragraph 286 of Telecom Decision 97-8.

²¹ See paragraph 94 of Telecom Decision 2003-53.

²² See the Appendix to this notice for a list of existing 9-1-1 tariffs.

20. ILECs, small ILECs, and CLECs may also establish 9-1-1 agreements with local governments, which are responsible for PSAPs and emergency responders, outlining the obligations, terms, and conditions associated with (i) the provision of access to 9-1-1 services, and (ii) the billing and collection of the municipal levies that are used to fund PSAPs.²³

Evolving telecommunications networks

21. Telecommunications networks are also in a period of transition. For example, in recent ESWG reports²⁴ and applications submitted to the Commission, 9-1-1 network providers have indicated that certain 9-1-1 equipment and facilities used in their 9-1-1 networks are nearing the end of their useful life, and will no longer be supported by manufacturers or vendors.

22. Consequently, Canadian TSPs, including 9-1-1 network providers, have been transitioning their networks to IP technology in varying degrees over the years. The Commission has also been playing its part in ensuring that Canadian networks are appropriately modernized.

23. For example, in Telecom Regulatory Policy 2012-24, the Commission established a regulatory framework to facilitate IP voice network interconnection between Canadian carriers, including interconnection to the 9-1-1 networks. As well, in Telecom Decision 2013-22, to support the provision of Text Messaging with 9-1-1 service for Canadians who are Deaf, hard of hearing, or have communication disabilities, the Commission mandated TSPs to make changes to their networks, systems, and processes to support Text Messaging with 9-1-1 service. This included mandating 9-1-1 network providers to work with municipal and provincial governments to expeditiously convert PSAPs' existing 9-1-1 data connections with ILECs to IP-based connections.

24. Recently, in Telecom Decision 2015-531, the Commission approved the adoption of the National Emergency Number Association (NENA)²⁵ i3 architecture standard for NG9-1-1 in Canada (the i3 standard). The i3 standard describes an end-state NG9-1-1 architecture envisioned to be reached over the long term. However, in the interim, transitional steps must be taken to maintain support for TSPs' existing interfaces and to accommodate PSAPs' current systems. Therefore, the i3 standard outlines the technical configuration of emergency service IP networks (ESInet), and other core components of NG9-1-1 networks as they are developed and reach the market. The i3 standard also provides predictability should TSPs wish to begin deploying new network elements in support of NG9-1-1.

²³ In cases where CLECs do not have agreements with local governments, they may file tariffs outlining their 9-1-1 obligations. Some existing CLEC agreements are based on Commission-approved template agreements. Wireless carriers and TSPs that are not carriers (resellers) are not required to establish 9-1-1 agreements with local governments or submit 9-1-1 tariffs for Commission approval.

²⁴ See CISC ESWG reports ESRE0058 and ESRE0072.

²⁵ NENA is a 9-1-1 standards-making organization whose mission is to foster the technological advancement, availability, and implementation of the 9-1-1 emergency system. NENA is based in the United States, and has a Canadian chapter and membership. Its membership is composed mostly of PSAPs, equipment vendors, and TSPs.

Canadians' evolving telecommunications needs and expectations

25. Canadians are changing the way they communicate and the telecommunications services they use. For example, they are reducing their dependency on wireline voice services in favour of mobile wireless and broadband Internet services (e.g. email, text, social media, applications, and other data services). The number of telephone lines in Canada has decreased from 18.2 million in 2010 to 15.7 million in 2014, while the number of mobile wireless service subscribers has increased from 25.3 million in 2010 to 28.8 million in 2014.²⁶ Wireless services are now available to 99% of Canadians, and one in five Canadian households rely solely on mobile wireless services.²⁷
26. The prevalence of mobile devices has also led to a shift in consumer behaviour from an emergency services perspective. For example, it is currently estimated that 70% of 9-1-1 calls in the United States are now being made from mobile devices.²⁸ Similar trends are being reported by PSAPs in Canada.
27. Canadians are not only using mobile devices more frequently, they are changing the way in which they use these devices by relying on data services more than on voice services. Canadians' appetite for messaging services, mobile applications, multimedia services, social networking, Internet browsing, and other data-intensive activities have driven wireless data growth to 22.4% over the past five years.²⁹ In fact, some wireless service providers currently offer data-only plans with no voice services, revealing that some Canadians are increasingly reliant on data services.

Issues to be examined

28. The Commission hereby initiates a proceeding to establish a regulatory framework for the provision of NG9-1-1 that will support the continued provision of effective 9-1-1 services and that will realize maximum benefits for Canadians. Specifically, the Commission will address fundamental policy matters, such as the roles and responsibilities of TSPs, the transition steps and timing involved in evolving to NG9-1-1, and how TSP-incurred NG9-1-1 costs should be recovered. This review will permit the Commission to examine how 9-1-1 networks and services need to evolve to take advantage of technological advancements, while taking into consideration the evolving needs and consumption habits of Canadians. Although PSAPs' systems do not fall under the Commission's jurisdiction, the Commission will need to take into account PSAP NG9-1-1 migration plans and the NG9-1-1 services they expect to support in its determinations.
29. Follow-up proceedings are expected to further develop the regulatory framework for NG9-1-1, and to address specific issues associated with its implementation.

²⁶ Based on information in the 2015 CRTC *Communications Monitoring Report*.

²⁷ From Statistics Canada's Survey of Household Spending (2013).

²⁸ Based on information from [NENA's "9-1-1 Statistics" web page](#).

²⁹ Based on information in the 2015 CRTC *Communications Monitoring Report*.

30. The Commission will not examine the overall transition of TSPs' originating networks to IP-based networks (such as with respect to voice and data services), except when the transition is relevant to 9-1-1 services.
31. Finally, the Commission will not address wireless 9-1-1 caller location accuracy, since it has, in the past, considered this topic separately due to its level of importance and complexity.³⁰

Call for comments

32. The Commission invites comments on the issues within the scope of this proceeding identified above. Specific questions are outlined below.
33. The Commission requests that parties set out their responses to each issue they choose to address separately, indicating which issue they are addressing at the beginning of each response.
34. In Telecom Regulatory Policy 2014-342, the Commission requested that the ESWG submit two status reports on the progress of NG9-1-1 implementation in Canada and abroad, the first by 31 December 2014, and the second by 31 December 2015. To facilitate the formulation of interventions, these reports, which include information on NG9-1-1 standards, equipment, deployment, and network readiness, have been placed on the record of this proceeding.
35. Shortly following the release of this notice, the Commission will request, by letter, information from relevant stakeholders. The letter and the responses to these requests for information will also form part of the record of this proceeding.
36. As a result of this proceeding, the Commission may impose additional obligations on some or all TSPs, including 9-1-1 network providers, whether or not they choose to become parties to this proceeding.
37. The Commission requests that interveners address the following questions:

NG9-1-1 services

Q.1: NG9-1-1-capable PSAPs will not only continue to receive and process 9-1-1 voice calls using existing 9-1-1 services, but may also interact with Canadians using new NG9-1-1 services, i.e. new methods of communication, such as text or multimedia messaging services, social media, and telematics (e.g. automatic collision notification systems in vehicles, medical alert systems, sensors, and alarms of various types).

- a. what new methods of communication with PSAP 9-1-1 operators should be supported in the future?

³⁰ For example, in Telecom Decision 2014-415, the Commission established wireless Enhanced 9-1-1 Phase II service location accuracy requirements for Canada, including benchmarks to measure improvements in 9-1-1 caller location accuracy.

- b. in what priority should they be implemented?
- c. in what time frame should they be implemented (for example, short-term [1-3 years], mid-term [3-5 years], and long-term [5-10 years])?
- d. what are the expected benefits and challenges of the proposed methods of communication and how could the challenges be addressed?

Q.2: NG9-1-1-capable PSAPs may also be in a position to receive additional forms of information that could assist in providing emergency responses, for example, images, video clips, video streaming, user-inputted personal information,³¹ building schematics, and medical records.

- a. what additional forms of information should NG9-1-1 networks and, where relevant, TSPs' originating networks, be capable of supporting?
- b. in what priority should they be introduced?
- c. in what time frame should they be implemented (for example, short-term [1-3 years], mid-term [3-5 years], and long-term [5-10 years])?
- d. what are the expected benefits and challenges of the proposed additional forms of information and how could the challenges be addressed?

NG9-1-1 architecture and responsibilities

Q.3: The Commission currently requires ILECs to provide and maintain the 9-1-1 networks and to provide 9-1-1 services. In moving to NG9-1-1,

- a. does this model remain appropriate?
- b. if not, what would be an appropriate model that would provide Canadians with an efficient, reliable, and cost-effective NG9-1-1 system, and guarantee the continued provision of effective 9-1-1 services?
- c. If you propose that NG9-1-1 networks and services are to be provided by a combination of parties, clearly indicate the roles and responsibilities of each party.
- d. are parties other than existing 9-1-1 network providers, for example, entities outside the Commission's jurisdiction such as provincial, territorial, or municipal governments or vendors, planning on building NG9-1-1 networks in Canada? If so, include details on the scope of those plans and on estimated timelines.

³¹ User-inputted information could include additional location information, such as work address (including floor number), information related to drug allergies, and emergency contacts.

Q.4: There are currently several 9-1-1 networks across Canada. In moving to NG9-1-1, indicate, with supporting rationale and evidence, as appropriate,

- a. whether there should be one national NG9-1-1 network in Canada, or a series of interconnected NG9-1-1 networks. If more than one network is proposed, what territory should each network cover, what would be appropriate policies or arrangements to govern the interconnection of the NG9-1-1 networks, and who should oversee the establishment and implementation of these policies or arrangements?
- b. what entities should be permitted to route traffic, directly or indirectly, to NG9-1-1 network providers for transmission over such networks. Such entities may include TSPs (e.g. carriers or resellers), PSAPs (e.g. Canadian or American), or any other service provider that may support an NG9-1-1 capability in the future (e.g. providers of telematics, over-the-top text messaging, and social media services).
- c. what requirements or safeguards should be in place to ensure the security of NG9-1-1 network(s) and the protection of confidential information carried over such networks.
- d. how it can be ensured that the design of NG9-1-1 networks takes into account reliability and resiliency best practices and standards.

Q.5: Have there been lessons learned from international NG9-1-1 implementation models and the roles and responsibilities of various parties that could serve to inform this proceeding?

Transition steps and timelines

Q.6: Based on your responses above, how should **existing 9-1-1 networks and services** in Canada be transitioned to NG9-1-1 network(s) and services? Your response should take into account the guaranteed continued provision of effective 9-1-1 services for Canadians and should include the following information:

- a. what would be an appropriate transition period? If your response includes a phased approach, propose a timeline for each phase, and indicate what steps should take place within each phase. For example, what critical network components, functionality, or equipment should be replaced, and with what; what arrangements should be put in place; and how long should each step take? Indicate whether each phase would introduce new services or network components.
- b. what are the cost estimates for each phase of the implementation of the network model proposed above? Provide rationale and any appropriate costing information to support your estimate.
- c. what are the dependencies, risks, and challenges that will be faced during the transition, and how could the risks and challenges be best addressed or mitigated?
- d. what follow-up Commission proceedings may be required based on your proposed transition plan?

Q.7: Based on the current state of TSPs' originating networks³² and your responses above, how should **TSPs' originating networks and 9-1-1 services** in Canada be transitioned to support NG9-1-1, taking into account that it is expected that both the current 9-1-1 networks and the NG9-1-1 network(s) may need to co-exist during the transition? Indicate, with supporting rationale and evidence, as appropriate,

- a. what would be an appropriate transition period. If your response includes a phased approach, propose a timeline for each phase.
- b. what steps should take place within each phase. For example, what critical wireline or wireless network components, functionality, or equipment should be replaced, and with what; what arrangements should be put in place; and how long should each step take?
- c. the cost estimates for the implementation of the network configuration proposed above. As well, provide estimates of the cost to implement NG9-1-1 in TSPs' originating networks under the proposed model. Provide rationale and any appropriate costing information to support your estimate.
- d. the dependencies, risks, and challenges that will be faced during the transition, and how the risks and challenges could be best addressed or mitigated.
- e. what follow-up Commission proceedings may be required based on your proposed transition plan.

Q.8: Based on the current state of PSAPs' systems, what timelines can reasonably be anticipated for PSAPs to adapt to the new NG9-1-1 service(s) once they are available from TSPs?

Funding

Q.9: Currently, 9-1-1 network providers recover their 9-1-1 network costs through wholesale 9-1-1 access service rates, which are reviewed and approved by the Commission.³³ TSPs pay 9-1-1 network providers a tariffed rate, usually on a per-subscriber basis, to provide 9-1-1 service to their subscribers. These TSPs in turn recover their own costs for providing 9-1-1 service through their revenues from retail telephone service. Based on your proposed NG9-1-1 model, indicate how one-time and ongoing costs for the NG9-1-1 network(s) and services under the Commission's jurisdiction should be recovered (i.e. what funding mechanism, such as Commission-approved tariffs, a central contribution fund, general provincial, territorial, or municipal taxes, and provincial, territorial, or municipal levies, should be used?). Include what costs should be funded (e.g. which components).

³² The Commission will not examine the overall transition of TSPs' originating networks to IP-based networks. However, it will examine matters relating to the transition of the aspects of TSPs' originating networks that provide existing 9-1-1 services or that will be used to provide NG9-1-1.

³³ In Telecom Decision 97-9 and in subsequent decisions, the Commission determined that it would be appropriate to freeze the levels of 9-1-1 service revenues collected by ILECs for the duration of the price cap period, subject to annual adjustments based on demand.

Confidentiality

Q.10: The Commission's existing privacy policy regarding a 9-1-1 caller's information is such that the name, location, telephone number, and class of service associated with the telephone service subscription through which the 9-1-1 call is made are provided to the provincial, territorial, or municipal government operating the PSAP, for the sole purpose of responding to the 9-1-1 call. This policy is reflected in the ILECs' and CLECs' 9-1-1 tariffs, and in their 9-1-1 agreements with PSAPs.³⁴ In an NG9-1-1 environment, where there will potentially be more methods of communication and where additional emergency information, such as images, videos, and user-inputted personal information could potentially be transmitted, what additional confidentiality concerns must be addressed? Indicate what privacy policies or obligations the Commission should establish, and when, to ensure the protection of consumers' privacy, taking into account the Commission's jurisdiction and existing privacy legislation.

Reporting and monitoring

Q.11: What reporting requirements should the Commission implement throughout the transition to NG9-1-1 services and afterwards? Identify the information that ought to be reported and the frequency of reporting.

Procedure

38. The *Canadian Radio-television and Telecommunications Commission Rules of Practice and Procedure* (the Rules of Procedure) apply to this proceeding. The Rules of Procedure set out, among other things, the rules for the content, format, filing, and service of interventions, answers, replies, and requests for information; the procedure for filing confidential information and requesting its disclosure; and the conduct of public hearings. Accordingly, the procedure set out below must be read in conjunction with the Rules of Procedure and their related documents, which can be found on the Commission's website at www.crtc.gc.ca under "Statutes and Regulations." The guidelines set out in Telecom and Broadcasting Information Bulletin 2010-959 provide information to help interested persons and parties understand the Rules of Procedure so that they can more effectively participate in Commission proceedings.
39. The record of the Telecom Notice of Consultation 2015-305 proceeding is added to the record of this proceeding.
40. The Commission will hold a public hearing, beginning on **16 January 2017 at 9:00 a.m.**, at the **Conference Centre, Phase IV, 140 Promenade du Portage**, in **Gatineau, Quebec**. The hearing is expected to last approximately five days.
41. 9-1-1 network providers, including ILECs, are made parties to this proceeding and may file interventions with the Commission by **20 May 2016**.

³⁴ These agreements were submitted as part of the record of the Telecom Notice of Consultation 2015-305 proceeding.

42. Interested persons who wish to become parties to this proceeding must file an intervention with the Commission regarding the above-noted issues by **20 May 2016**. The intervention must be filed in accordance with section 26 of the Rules of Procedure and must include one of the following statements in either the first or the last paragraph:
- I request to appear at the public hearing.
 - I do not want to appear at the public hearing.
43. Parties are permitted to coordinate, organize, and file, in a single submission, interventions by other interested persons who share their position but do not wish to appear at the hearing. Information on how to file this type of submission, known as a joint supporting intervention, as well as a [template](#) for the accompanying cover letter to be filed by parties, can be found in Telecom Information Bulletin [2011-693](#).
44. All documents required to be served on parties to the proceeding must be served using the contact information contained in the interventions.
45. Parties who wish to appear at the public hearing must provide reasons why their written intervention is not sufficient and why an appearance is necessary. In addition, parties requiring communications support must state their request for such support on the first page of their intervention.
46. Only those parties whose requests to appear have been granted will be contacted by the Commission and invited to appear at the hearing. An organization and conduct letter, providing directions on procedure with respect to the public hearing, will be issued before the hearing begins.
47. Although the public hearing will be held in **Gatineau, Quebec**, parties may participate from the Commission's regional offices via videoconference. Parties interested in doing so are asked to indicate, at the time they file their interventions, the regional office where they wish to appear. A list of the Commission's regional offices is included in this notice. In addition, the Commission will consider providing videoconference or teleconference links to other locations should it receive requests to do so.
48. Persons requiring communications support, such as assistive listening devices and sign language interpretation, are requested to confirm with the Commission at least **20 days** before the commencement of the public hearing so that the necessary arrangements can be made.
49. As noted in paragraph 35 above, shortly following the release of this notice, Commission staff will request information from relevant stakeholders in the form of interrogatories, sent by separate letter. The applicable deadlines and procedures will be set out in the letter.
50. The Commission and parties may subsequently request information, in the form of interrogatories, from any party to the proceeding. Procedural timelines associated with this subsequent round of requests for information are set out in paragraphs 51 through 55 below.

51. The requesting party must file its request for information with the Commission, and serve the request on the party to whom it is addressed, by **22 July 2016**.
52. Responses to requests for information are to be filed with the Commission, and served on the parties making the requests, by **23 August 2016**.
53. Parties may request (i) further responses to interrogatories, specifying in each case why a further response is necessary, and (ii) the public disclosure of information that has been designated confidential, setting out in each case the reasons for disclosure. These requests must be filed with the Commission, and served on the parties to whom they are addressed, by **2 September 2016**.
54. Responses to requests for further responses to interrogatories and responses to requests for public disclosure must be filed with the Commission, and served on the parties making the requests, by **12 September 2016**.
55. Determinations regarding requests for further responses and requests for public disclosure will be issued as soon as possible. Any information to be provided pursuant to such determinations must be filed with the Commission, and served on the parties making the requests, by **26 September 2016**.
56. All parties may file replies to interventions or to responses to the various requests for information, serving copies on all other parties, by **17 October 2016**.
57. Following the hearing, parties may file final submissions with the Commission on any matter within the scope of this proceeding, serving copies on all other parties, by **31 January 2017**. Final submissions, including an executive summary, are not to exceed 15 pages.
58. The Commission encourages interested persons and parties to monitor the record of this proceeding, available on the Commission's website at www.crtc.gc.ca, for additional information that they may find useful when preparing their submissions.
59. Submissions longer than five pages should include a summary. Each paragraph of all submissions should be numbered, and the line *****End of document***** should follow the last paragraph. This will help the Commission verify that the document has not been damaged during electronic transmission.
60. Pursuant to Broadcasting and Telecom Information Bulletin 2015-242, the Commission expects incorporated entities and associations, and encourages all Canadians, to file submissions for Commission proceedings in accessible formats (for example, text-based file formats that enable text to be enlarged or modified, or read by screen readers). To provide assistance in this regard, the Commission has posted on its website [guidelines](#) for preparing documents in accessible formats.
61. Submissions must be filed by sending them to the Secretary General of the Commission using **only one** of the following means:

by completing the
[\[Intervention form\]](#)

or

by mail to
CRTC, Ottawa, Ontario K1A 0N2

or

by fax to
819-994-0218

62. Parties who send documents electronically must ensure that they will be able to prove, upon Commission request, that service/filing of a particular document was completed. Accordingly, parties must keep proof of the sending and receipt of each document for 180 days after the date on which the document is filed. The Commission advises parties who file and serve documents by electronic means to exercise caution when using email for the service of documents, as it may be difficult to establish that service has occurred.
63. In accordance with the Rules of Procedure, a document must be received by the Commission and all relevant parties by 5 p.m. Vancouver time (8 p.m. Ottawa time) on the date it is due. Parties are responsible for ensuring the timely delivery of their submissions and will not be notified if their submissions are received after the deadline. Late submissions, including those due to postal delays, will not be considered by the Commission and will not be made part of the public record.
64. The Commission will not formally acknowledge submissions. It will, however, fully consider all submissions, which will form part of the public record of the proceeding, provided that the procedure for filing set out above has been followed.

Important notice

65. All information that parties provide as part of this public process, except information designated confidential, whether sent by postal mail, facsimile, email, or through the Commission's website at www.crtc.gc.ca, becomes part of a publicly accessible file and will be posted on the Commission's website. This includes all personal information, such as full names, email addresses, postal/street addresses, and telephone and facsimile numbers.
66. The personal information that parties provide will be used and may be disclosed for the purpose for which the information was obtained or compiled by the Commission, or for a use consistent with that purpose.
67. Documents received electronically or otherwise will be posted on the Commission's website in their entirety exactly as received, including any personal information contained therein, in the official language and format in which they are received. Documents not received electronically will be available in PDF format.

68. The information that parties provide to the Commission as part of this public process is entered into an unsearchable database dedicated to this specific public process. This database is accessible only from the web page of this particular public process. As a result, a general search of the Commission's website with the help of either its search engine or a third-party search engine will not provide access to the information that was provided as part of this public process.

Availability of documents

69. Electronic versions of the interventions and other documents referred to in this notice are available on the Commission's website at www.crtc.gc.ca by using the file numbers provided at the beginning of this notice or by visiting the "Participate" section of the Commission's website, selecting "Submit Ideas and Comments," then selecting "our open processes." Documents can then be accessed by clicking on the links in the "Subject" and "Related Documents" columns associated with this particular notice.

70. Documents are also available from Commission offices, upon request, during normal business hours.

Commission offices

Toll-free telephone: 1-877-249-2782

Toll-free TDD: 1-877-909-2782

Les Terrasses de la Chaudière
Central Building
1 Promenade du Portage, Room 206
Gatineau, Quebec J8X 4B1
Tel.: 819-997-2429
Fax: 819-994-0218

Regional offices

Nova Scotia

Metropolitan Place
99 Wyse Road, Suite 1410
Dartmouth, Nova Scotia B3A 4S5
Tel.: 902-426-7997
Fax: 902-426-2721

Quebec

505 De Maisonneuve Boulevard West, Suite 205
Montréal, Quebec H3A 3C2
Tel.: 514-283-6607

Ontario

55 St. Clair Avenue East, Suite 624
Toronto, Ontario M4T 1M2
Tel.: 416-952-9096

Manitoba

360 Main Street, Suite 970
Winnipeg, Manitoba R3C 3Z3
Tel.: 204-983-6306
Fax: 204-983-6317

Saskatchewan

1975 Scarth Street, Suite 403
Regina, Saskatchewan S4P 2H1
Tel.: 306-780-3422
Fax: 306-780-3319

Alberta³⁵

220 – 4th Avenue Southeast, Suite 574
Calgary, Alberta T2G 4X3
Tel.: 403-292-6660
Fax: 403-292-6686

British Columbia

858 Beatty Street, Suite 290
Vancouver, British Columbia V6B 1C1
Tel.: 604-666-2111
Fax: 604-666-8322

Secretary General

Related documents

- *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
- *Matters related to the reliability and resiliency of the 9-1-1 networks*, Telecom Notice of Consultation CRTC 2015-305, 9 July 2015

³⁵ As of 18 April 2016, the Alberta regional office will be located in Suite 172 at the same address.

- *Filing submissions for Commission proceedings in accessible formats*, Broadcasting and Telecom Information Bulletin CRTC 2015-242, 8 June 2015
- *CISC Emergency Services Working Group – Consensus report regarding wireless enhanced 9-1-1 Phase II location accuracy requirements*, Telecom Decision CRTC 2014-415, 6 August 2014
- *9-1-1 action plan*, Telecom Regulatory Policy CRTC 2014-342, 25 June 2014
- *CISC Emergency Services Working Group – Consensus report regarding Text Messaging with 9-1-1 trial and service implementation*, Telecom Decision CRTC 2013-22, 24 January 2013
- *Network interconnection for voice services*, Telecom Regulatory Policy CRTC 2012-24, 19 January 2012
- *Filing of joint supporting interventions*, Telecom Information Bulletin CRTC 2011-693, 8 November 2011
- *Guidelines on the CRTC Rules of Practice and Procedure*, Broadcasting and Telecom Information Bulletin CRTC 2010-959, 23 December 2010
- *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
- *Price cap regulation and related issues*, Telecom Decision CRTC 97-9, 1 May 1997
- *Local competition*, Telecom Decision CRTC 97-8, 1 May 1997

Appendix to Telecom Notice of Consultation CRTC 2016-116

9-1-1 tariffs

ILECs

Bell Canada

- Access Services Tariff for Interconnection with Carriers and Other Service Providers, CRTC 7516, Part 2, [item 105.4 – Rates and Charges](#)
- Special Facilities Tariff, CRTC 7396, [item G21 – Wireless Service Provider Enhanced 9-1-1 Service](#)

MTS Inc.

- MTS Allstream Inc. Supplementary Tariff, Access Services for Interconnection with Carriers and Other Service Providers, Access Arrangements, CRTC 24006, Part II, [item 105.4 – Rates and Charges](#)
- General Tariff, CRTC 24001, Part II, Exchange Service Rates, [item 485.4 – Rates and Charges](#) and Part IV, Other Services and Facilities, [item 3050 – Wireless Service Provider Enhanced 9-1-1 Service \(WSP E9-1-1\)](#)

Saskatchewan Telecommunications

- Competitor Access Tariff, CRTC 21414, [item 610.18.4.2 – Network Component Unbundling](#) and [item 610.05 – Wireless Service Provider Enhanced Provincial 9-1-1 Network Access Service](#)
- General Tariff, Basic Services, CRTC 21411, [item 140.05.3 – Rates](#)

TELUS Communications Company

- TELUS Communications Inc. Carrier Access Tariff, CRTC 18008, [item 215.4 – Rates and Charges](#)
- General Tariff, CRTC 21461, [item 201 – Wireless Service Provider Enhanced Provincial 9-1-1 Network Access Service](#) and [item 203.3 – Rates](#)

Small ILECs

CityWest Telephone Corporation

- General Regulations, CRTC 25700, item 11 – Accessories

TBayTel

- Carrier Access Tariff for Interconnection with Carriers and Other Service Providers, CRTC 25571, [section 8000.4\(5\)](#)