



Telecom Decision CRTC 2017-226

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CISC Emergency Services Working Group – Consensus report ESRE0071 regarding wireless 9-1-1 test calls to public safety answering points

Background

1. Effective and timely 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. Wireless carriers regularly make changes or upgrades to their networks and, to ensure that there is no interference with the proper routing of 9-1-1 calls to the appropriate public safety answering point (PSAP),¹ any such changes or upgrades require testing prior to activation.
2. With respect to wireless networks, wireless service providers (WSPs) work with PSAPs to conduct live 9-1-1 test calls when there are newly implemented or reconfigured wireless network elements. These calls are made to validate that a two-way voice path is established between the caller and the PSAP, and to ensure that Enhanced 9-1-1 information is delivered to the PSAP with the call.
3. These tests pose significant scheduling challenges for both PSAPs and WSPs, and require dedicated resources since hundreds of live 9-1-1 test calls may be conducted each month across the country.
4. The CRTC Interconnection Steering Committee (CISC) Emergency Services Working Group (ESWG) explored, with the goal to reduce or eliminate the need for live 9-1-1 test calls, possible administrative, operational, and technical options that may lead to efficiencies for both PSAPs and WSPs with regard to 9-1-1 call testing.

The ESWG report

5. On 7 November 2016, the ESWG submitted the following consensus report for Commission approval:
 - *Wireless Test Calls to PSAPs*, 5 October 2016 (ESRE0071)

¹ PSAPs are established and managed by provincial/territorial governments or municipalities to answer calls to 9-1-1 and direct them to the appropriate emergency responders (police, fire, and/or ambulance).

6. The consensus report can be found under the “Reports” section of the ESWG page, which is available under the CISC section of the Commission’s website at www.crtc.gc.ca.
7. In its assessment of why 9-1-1 test calls are required and what information WSPs need, the ESWG concluded that such calls continue to be required; however, processes should be improved and made as efficient as possible.
8. The ESWG also determined that, when there has been an unforeseen network impact or failure that has the potential to compromise the integrity or reliability of the 9-1-1 network, emergency 9-1-1 test calls may be required with little or no warning to the PSAP. Solutions for emergency 9-1-1 test calls, however, have not been developed since they are not required very often and each emergency situation is unique. Therefore, the ESWG indicated that its proposed solutions only apply to scheduled 9-1-1 test calls.
9. With respect to wireless testing solutions, PSAPs may choose between solutions offered by 9-1-1 service providers or by third-party software providers. The ESWG noted that Bell Mobility Inc. (Bell Mobility), TELUS Communications Company (TCC), and the Peel Region PSAP (Peel) have proactively developed three distinct solutions that depend on the implementation of a standard class of service² and that the Peel solution is specific to PSAPs that use the AQS-SC computer-aided dispatch system.
10. The ESWG also indicated that MTS Inc.’s (MTS) and Saskatchewan Telecommunications’ (SaskTel) implementation of automated solutions in Manitoba and Saskatchewan would not be possible until their existing automatic location identification (ALI) platforms are replaced during the transition to next-generation 9-1-1 (NG9-1-1), which they expect will be complete by 30 June 2020.³
11. Accordingly, the ESWG recommended that
 - Bell Mobility be authorized to offer its automated wireless 9-1-1 test call solution in its 9-1-1 serving territory, including the deployment of the new data record test (DRT) class of service;
 - TCC be authorized to offer its automated wireless 9-1-1 test call solution in its 9-1-1 serving territory, including the deployment of the new wireless test call (WTC) class of service;

² “Class of service” refers to a way of managing traffic in a network by grouping similar types of traffic (for example, email, streaming video, voice, or large document file transfer) together and treating each type as a class with its own level of service priority.

³ See *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.

- MTS and SaskTel be directed to introduce an automated wireless 9-1-1 test call solution in their respective 9-1-1 serving territories as soon as they are technically capable of doing so;
 - All WSPs take the steps necessary to support the applicable wireless 9-1-1 test call solutions and new class of service, i.e. DRT or WTC, that applies to their existing 9-1-1 serving territories by the proposed implementation dates noted below; and
 - PSAPs that choose to use software to automate wireless 9-1-1 test call handling procedures, as Peel has done, for example, provide WSPs with 30 days' notice so that the WSPs can prepare the test procedures for their respective PSAP jurisdictions.
12. The ESWG recommended that implementation of these solutions take effect six months from the date of the Commission's decision, and that they remain in effect for a period of three years. At the end of three years, the ESWG recommends revisiting the matter to determine how the solutions could be integrated into the new NG9-1-1 platform.

Commission's analysis and determinations

13. The Commission is continually looking for ways in which emergency telecommunications services can be improved. Increasing efficiencies associated with wireless 9-1-1 test calls between WSPs and PSAPs reduces the testing burden on PSAPs, which frees up call takers to answer real-life emergency calls. This could also potentially result in cost savings for Canadians, who ultimately pay for the provision of 9-1-1 services.
14. Within their operating territories, PSAPs are connected to only one 9-1-1 network provider, which obviates the requirement for national consistency of automated solutions associated with wireless 9-1-1 test calls from the PSAPs' perspective. However, the lack of national consistency does affect WSPs that operate on a national basis. Nonetheless, the different solutions described in the consensus report can be considered temporary, i.e. until NG9-1-1 networks are fully implemented, as the ESWG indicated in its report. NG9-1-1 should provide the technical means that will enable the use of common solutions across the country.
15. With regard to MTS and SaskTel being unable to implement automated solutions at the moment, the Commission is of the view that the existing wireless 9-1-1 test call procedures that were developed co-operatively with PSAPs and WSPs in Manitoba and Saskatchewan will continue to minimize the impacts of wireless 9-1-1 test calls on PSAPs.
16. The Commission expects that the recommended actions will achieve the objective of reducing or eliminating the need for live wireless 9-1-1 test calls to a substantial degree while ensuring the reliable delivery of wireless 9-1-1 calls to PSAPs.

17. In addition, the Commission notes the significant stakeholder representation in the development of the proposed solutions, and the contributions of PSAPs and WSPs to the recommendations.
18. In light of the above, the Commission **approves** the consensus report. The Commission **directs**
 - Bell Mobility to immediately offer its automated wireless 9-1-1 test call solution in its 9-1-1 serving territory, including deployment of the new DRT class of service;
 - TCC to immediately offer its automated wireless 9-1-1 test call solution in its 9-1-1 serving territory, including the deployment of the new WTC class of service;
 - MTS and SaskTel to introduce an automated wireless 9-1-1 test call solution in their respective 9-1-1 serving territories as soon as they are technically capable of doing so; and
 - all WSPs to take the steps necessary to support the applicable wireless 9-1-1 test call solutions and new class of service (DRT or WTC) that applies to their existing 9-1-1 serving territories, within **six months** of the date of this decision.
19. In addition, the Commission encourages PSAPs that choose to use third-party software to automate wireless 9-1-1 test call handling procedures to provide WSPs with 30 days' notice so that the WSPs can prepare the test procedures for their respective PSAP jurisdictions.
20. These determinations will be in effect for a period of three years from the date of this decision, upon which the ESWG will revisit them to determine how they can be integrated into and improved with respect to the new NG9-1-1 platform.

Secretary General