



Telecom Decision CRTC 2014-415

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CISC Emergency Services Working Group – Consensus report regarding wireless enhanced 9-1-1 Phase II location accuracy requirements

*The Commission **approves** the recommendations made by the CRTC Interconnection Steering Committee’s Emergency Services Working Group (ESWG) regarding wireless enhanced 9-1-1 (E9-1-1) Phase II location accuracy requirements for Canada, including the establishment of national benchmarks to measure improvements in location accuracy. The Commission also requests that the ESWG submit a report to the Commission, within six months of the date of this decision, outlining a recommended performance monitoring process. In addition, the Commission **directs** all wireless carriers operating where wireless E9-1-1 Phase II service is deployed to report to the Commission and to the ESWG, within 12 months of the date of this decision, their performance in meeting the requirements outlined in this decision.*

Background

1. Emergency telecommunications services, including 9-1-1 service, are critical to the health and safety of Canadians. The Commission considers that an effective 9-1-1 system that meets the needs of citizens is an important part of ensuring that Canadians have access to a world-class communications system. Accordingly, the Commission is continually looking for ways in which emergency telecommunications services can be improved.
2. In Telecom Regulatory Policy 2009-40, based on the consensus recommendations of 9-1-1 stakeholders in the CRTC Interconnection Steering Committee’s Emergency Services Working Group (ESWG), the Commission mandated the technical and operational requirements for the implementation of wireless enhanced 9-1-1 (E9-1-1) Phase II service. This new service provided substantial public safety improvements by allowing the transmission of a wireless 9-1-1 caller’s location to public safety answering points (PSAPs)¹ with much greater precision.

¹ Public safety answering points 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).

3. In 2012, the ESWG initiated a review of wireless location accuracy performance, and examined whether the existing wireless E9-1-1 Phase II location accuracy requirements² remained appropriate.

The ESWG report

4. On 16 January 2014, the ESWG submitted Consensus Report ESRE0064, *Wireless E9-1-1 Phase II Location Accuracy Requirements in Canada* (the Report) for Commission approval.
5. In the Report, the ESWG recommended that the Commission find that the existing mandated accuracy-related location system requirements remain appropriate and should continue to be used. In addition, the ESWG recommended that the Commission approve that all wireless carriers be required to
 - provide location information to PSAPs for a minimum of 95 percent of calls to 9-1-1 (the 95-percent yield requirement);
 - use actual network location data to evaluate, assess, measure, and provide location accuracy to PSAPs;
 - initially meet minimum location accuracy thresholds and endeavour to meet higher target thresholds, which would be used as benchmarks to measure improvements in location accuracy;
 - monitor the location accuracy performance of their location-determining systems, and perform testing, validation, and maintenance using best practices and processes on an ongoing basis; and
 - measure, analyze, and take appropriate actions for wireless 9-1-1 calls delivered without valid Phase II location data.
6. The ESWG also recommended that the Commission request it to
 - facilitate the development of an appropriate monitoring process to help validate and review the recommended location accuracy benchmarks; and
 - reassess the initial benchmarks one year after Commission approval of the Report and, if the initial benchmarks are revised, the wireless carriers be given an additional six months to meet any revised benchmarks.

² In Telecom Regulatory Policy 2009-40, the Commission mandated the provision of wireless E9-1-1 Phase II location information to PSAPs at a 90-percent confidence level, with the accompanying uncertainty value in metres, and a 30-second response time. “Uncertainty” is an estimate of the horizontal error between the actual handset position and the latitude/longitude calculated by the location system, at a given level of confidence. “Confidence” indicates how reliable or confident the system is regarding the estimate.

7. The ESWG requested that the Commission approve all the consensus recommendations in the Report, and mandate implementation of the recommendations one year after approval wherever wireless E9-1-1 Phase II service is deployed.

Commission's analysis and determinations

8. In Telecom Regulatory Policy 2014-342, the Commission noted, as part of its 9-1-1 action plan, that improving wireless 9-1-1 location accuracy is a high priority for it and for Canadians. The Commission further noted that it was reviewing the ESWG Report and would be making a determination on its recommendations.
9. The Commission has reviewed the Report and considers that measurement of location accuracy performance in the manner proposed, and the proposed national benchmarks, are appropriate. The benchmarks will serve to establish a baseline upon which to compare and track location accuracy improvements over time and as technology evolves. The Commission therefore **approves** all the recommendations contained in the Report.
10. In addition, the Commission requests that the ESWG submit a report to the Commission for approval, within six months of the date of this decision, outlining a recommended monitoring process for all wireless carriers.
11. Further, the Commission **directs** all wireless carriers operating where wireless E9-1-1 Phase II service is deployed to report to the Commission and to the ESWG, within 12 months of the date of this decision, their performance in meeting the location accuracy benchmarks and 95-percent yield requirement. The wireless carriers' submissions must include detailed empirical evidence.
12. The ESWG's report regarding a recommended performance monitoring process should also indicate the date by which the ESWG expects to file a location accuracy benchmark reassessment report based on the wireless carriers' submissions discussed in paragraph 11.

Secretary General

Related documents

- *9-1-1 action plan*, Telecom Regulatory Policy CRTC 2014-342, 25 June 2014
- *Implementation of wireless Phase II E9-1-1 service*, Telecom Regulatory Policy CRTC 2009-40, 2 February 2009