



Telecom Decision CRTC 2018-108

PDF version

Ottawa, 29 March 2018

Public record: 8621-C12-01/08

CRTC Interconnection Steering Committee – Consensus reports on a proposed wireless public alerting test alert schedule and methodology

Background

1. In Telecom Regulatory Policy 2017-91, the Commission directed wireless service providers (WSPs) to implement wireless public alerting (WPA) capability on their networks, excluding pre-long-term evolution (LTE) networks, by 6 April 2018. The Commission also requested that the CRTC Interconnection Steering Committee (CISC) resolve a number of outstanding issues related to WPA prior to the mandatory distribution of emergency alert messages, including the establishment of a WPA test alert schedule and methodology.

Reports

2. The Commission received the following two consensus reports from the Network Working Group (NTWG) on a proposed WPA test alert schedule and methodology:
 - *Wireless Public Alerting (WPA) – Testing Schedule* (NTRE059, 3 October 2017)
 - *Wireless Public Alerting (WPA) – Test Message Handling* (NTRE060, 31 October 2017)
3. The consensus reports can be found in the “Reports” section of the NTWG page, which is available in the CISC section of the Commission’s website at www.crtc.gc.ca.
4. The NTWG made the following three recommendations regarding the WPA test alert schedule and methodology:
 - The WPA test alert schedule should be aligned with the five tests per year that the Senior Officials Responsible for Emergency Management’s (SOREM) Public Alerting Working Group recommends for broadcasting emergency alerts. Only the test during Emergency Preparedness Week in May of each year would be visible to end-users. The remaining four tests would use the WPA System Test Channel and would be invisible to end-users.

- Pelmorex Weather Networks (Television) Inc. (Pelmorex),¹ as the current National Alert Aggregation and Dissemination (NAAD) System operator, should implement the solution described in report NTRE060 for the handling of invisible test alerts and complete that implementation by mid-December 2017. No amendments to the ATIS² 0700021³ standard would be needed if Pelmorex did so.
 - The NTWG should continue updating the WPA C-Interface⁴ specifications and release C-Interface version 2.0.
5. Pelmorex identified that there is a risk of multiple visible test alerts being distributed during Emergency Preparedness Week due to upstream human error, test alerts being issued from various emergency management officials (EMOs), or an intentional reissuance of a test alert by EMOs.⁵

Commission's analysis and determinations

6. The Commission considers it appropriate for the WPA test schedule to be aligned with SOREM's existing broadcast test alert schedule of five tests per year, since this would (i) support the effective testing of the WPA system to confirm operational readiness, and (ii) enable the efficient testing of both the broadcast and WPA systems at the same time, reflecting how public alerts will be sent.
7. The Commission also considers it appropriate that the solution for the handling of invisible test alerts be implemented by the current NAAD System operator, Pelmorex. Pelmorex should also implement the necessary procedures and safeguards to mitigate the risk of it distributing inadvertent visible test alerts due to human error and to ensure that multiple test alerts are not issued by various EMOs, which would create confusion about the tests. This would involve, among other things, proper training and coordination on conducting test alerts and abiding by the test alert schedule.
8. WPA technical specifications must be updated over time to incorporate improvements in functionality or beneficial new features. The NTWG has completed WPA C-Interface version 2.0, and it is available to WSPs. The Commission considers that the NTWG continuing to update the WPA C-Interface specifications would benefit WPA stakeholders and WPA overall.

¹ As of 6 April 2017, Pelmorex Communications Inc. operates as Pelmorex Weather Networks (Television) Inc.

² ATIS (the Alliance for Telecommunications Industry Solutions) is a standards-setting body based in the United States. Telecommunications equipment manufacturers use its standards to ensure common functionality and interoperability.

³ *Canadian Wireless Public Alerting Service (WPAS) LTE Mobile Device Behavior Specification*

⁴ The C-Interface (Carrier Interface) is the operational interface between (and inclusive of) the NAAD System WPA Service Gateway and the WSP Gateway for the purpose of issuing emergency alerts.

⁵ This scenario could occur if there is a lack of or breakdown in coordination among WPA stakeholders.

9. Accordingly, the Commission

- **approves** the proposed test alert schedule of five tests per year, in line with SOREM’s test schedule for broadcasting emergency alerts. Of these five tests, only one test will be visible to end-users and it will take place each year during Emergency Preparedness Week. The other four tests will be invisible to end-users.
- **approves** the recommendation for the NTWG to update the WPA C-Interface specifications from time to time, as required.
- expects the NAAD System operator to,
 - if it has not already done so, implement a solution for the handling of invisible test alerts and to complete that implementation before 6 April 2018;
 - implement procedures and safeguards to mitigate the risk of distributing inadvertent visible test alerts due to human error, as well as to ensure that multiple test alerts are not issued by various EMOs and that test alerts are not intentionally reissued by EMOs; and
 - work with EMOs to provide training to alert issuers and other relevant alerting stakeholders on conducting test alerts and abiding by the test alert schedule.

10. In light of the above and consistent with its determinations in Telecom Decision 2018-85, the Commission confirms that WSPs are to distribute public emergency alerts as of 6 April 2018, the same deadline for the implementation of WPA capability set out in Telecom Regulatory Policy 2017-91. The Commission therefore imposes the following obligation on WSPs, pursuant to sections 24 and 24.1 of the *Telecommunications Act*:

As of 6 April 2018, as a condition of providing service, all WSPs are required to immediately distribute emergency alerts received from the NAAD System operator for immediate distribution. Emergency alerts are to be distributed over the networks used by WSPs, excluding pre-LTE networks, such that all WPA-compatible mobile wireless devices (as described in Telecom Regulatory Policy 2017-91) connected to network-supporting cellular towers that serve all or part of the area identified by the alert-issuing EMO receive the emergency alert.

Wave-off mechanism

NTWG recommendation

11. The NTWG recommended that WSPs be allowed to “wave off” test alert delivery under the circumstances described in report NTRE059, such as a telecommunications network operational emergency, and other extraordinary situations, such as a platform

loss of redundancy or a transport failure, in cases where a WPA test alert would stimulate telephony traffic and exacerbate the operational emergency. The NTWG indicated that the wave-off mechanism should include the method (e.g. via telephone call or email) by which the WSP would request that the test alert originator (i.e. the NAAD System operator or EMO) not send the test alert to that WSP, and that this wave-off mechanism should be incorporated into WPA test procedures.

Commission's analysis and determinations

12. The Commission considers that scenarios such as a telecommunications network operational emergency, a platform loss of redundancy, or a transport failure are rare, and that the chance of such a failure occurring during a periodic test alert is low. Nevertheless, there is a possibility of these scenarios occurring, and it is important for the Commission to address what is expected of WSPs in these scenarios.
13. Invisible test alerts are conducted to ensure that the alerting system is functional, and visible test alerts are conducted to create awareness of WPA among Canadians. The wave-off of a visible test alert could result in a significant number of end-users not receiving the alert, which could create confusion among Canadians and WPA stakeholders, since the expected date and time of the visible test alert would have been communicated during the WPA public awareness and education campaign, and testing would have been conducted by all other WSPs and WPA stakeholders according to the pre-determined test alert schedule.
14. To mitigate the confusion created by a WSP not participating in a scheduled visible test alert, that WSP should promptly notify its affected end-users of (i) the situation that prevented it from participating in the test, and (ii) when end-users would again be able to receive a test alert, in the event that one is issued by an EMO. As well, the Commission considers it reasonable that if a WSP becomes aware that it will be unable to participate in any of the scheduled test alerts, in a particular area or in its entire coverage area, it should inform the Commission and the NAAD System operator.
15. In addition, the WSP should submit an incident report to the Commission within seven days of becoming aware or within seven days after the scheduled visible or invisible test alert, whichever is sooner. The incident report should include (i) an explanation of why the WSP is or was unable to conduct the test alert, (ii) the message sent to its affected end-users, (iii) the affected areas, and (iv) the estimated number of affected end-users. As well, the WSP should conduct tests internally to ensure its operational readiness to distribute emergency alerts after a network operational emergency.
16. In light of the above, the Commission **approves** the NTWG's recommendation for a WSP to have the ability to "wave off" test alert delivery in the circumstances described in report NTRE059, under the following conditions:

- The Commission **directs** the affected WSPs to notify their affected end-users of (i) the network operational emergency or other extraordinary situation that prevented the WSP from participating in the visible test alert, and (ii) when end-users would again be able to receive a test alert, in the event that one is issued by an EMO.
- The Commission **directs** the affected WSPs to immediately inform the Commission and the NAAD System operator upon becoming aware that the WSPs will be unable to participate in any of the scheduled visible or invisible test alerts, in a particular area or in their entire coverage area. In addition, WSPs must submit an incident report to the Commission within seven days of becoming aware or within seven days after the scheduled test, whichever is sooner. This incident report is to include (i) an explanation of why the WSP is or was unable to conduct the test alert, (ii) the message sent to its affected end-users in cases where the test message in which the WSP is not participating or will not participate is a visible test alert, (iii) the affected areas, and (iv) the estimated number of affected end-users.
- The Commission **directs** the affected WSPs, once any network operational emergency or other extraordinary situation has been resolved, to conduct internal tests to ensure their operational readiness to distribute test alerts and to promptly confirm this with the Commission, the NAAD System operator, and other WPA stakeholders.

Secretary General

Related documents

- *CRTC Interconnection Steering Committee – Consensus report on a proposed wireless public alerting awareness and education campaign*, Telecom Decision CRTC 2018-85, 8 March 2018
- *Implementation of the National Public Alerting System by wireless service providers to protect Canadians*, Telecom Regulatory Policy CRTC 2017-91, 6 April 2017