

May 30, 2016

Danielle May-Cuconato
Secretary General
Canadian Radio-television and Telecommunications Commission
Les Terrasses de la Chaudière
1 Promenade du Portage
Gatineau, Quebec J8X 4B1

Dear Ms. May-Cuconato,

Re: CWTA comments on Telecom Notice of Consultation CRTC 2016-115, *Participation by wireless service providers in the National Public Alerting System*

1. The Canadian Wireless Telecommunications Association (CWTA) is the authority on wireless issues, developments and trends in Canada. It represents wireless service providers as well as companies that develop and produce products and services for the industry, including handset and equipment manufacturers, content and application creators and business-to-business service providers. CWTA is pleased to file its comments with respect to the above-noted consultation.
2. The wireless industry is fully committed to enabling and facilitating any services that can leverage the capabilities of the wireless network to help keep Canadians safe. The ubiquity and functionality of wireless service make it an incomparable public safety tool for consumers and first responders, particularly for public alerting. No communications tool can reach as many Canadians as quickly and precisely as wireless devices. This presents a responsibility that CWTA and the entire wireless industry take very seriously.

The wireless industry is committed to enabling mobile services that can help keep Canadians safe

3. Wireless devices have transformed society in the most beneficial ways, the most important of which are the ways they have helped improve the safety of Canadians. The availability and mobility of wireless service alone have greatly increased access to emergency services, which is evidenced by the fact that approximately 70% of 9-1-1 emergency calls are made from wireless devices.¹
4. Wireless services are also used to improve the deployment and coordination of first responders, and provide Canadians with critical information. The wireless industry has therefore consistently and proactively enabled and promoted the use of wireless technology to enhance the safety of Canadians. Such efforts have included:

¹ CRTC: *A Report on Matters Related to Emergency 9-1-1 Services*.

- Launching and administering the Wireless AMBER Alerts program to assist law enforcement agencies in providing the public with immediate and up-to-date information about a child's abduction, and to solicit the public's help in the safe and swift return of the child (Wirelessamber.ca);
 - Undertaking all required technical upgrades to enable Text with 9-1-1 service for Canada's Deaf, Deafened, hard of hearing or speech impaired community and managing communications efforts for the service through the Textwith911.ca web site; and
 - Providing ongoing support to the Canadian Centre for Child Protection to further their efforts with Missingkids.ca and TextEd.ca.
5. In fact, every time there has been an opportunity to enhance public safety using wireless technology, the industry has responded, including the opportunity to provide wireless public alerting nationally. Wireless service providers have been actively participating in the ongoing collaborative process involving alerting authorities and other interested stakeholders to implement a national wireless public alerting (WPA) service.
6. CWTA therefore supports the Commission's intervention into this matter and is pleased to provide the industry's perspective on the issues raised for consultation. Specifically:
- A cell broadcast-based WPA system will leverage the latest network technology to be the most effective during an emergency, now and in the future, for the benefit of Canadians;
 - Wireless public alerts should be mandatory for service providers;
 - Service providers will require at least one year from the date of a final decision on standards and protocols to make the necessary investments to implement the technology needed to enable WPA;
 - A single national standard for WPA technology and alert standards is preferred; and
 - WPA should be fully tested prior to launch and promoted across Canada.

A cell broadcast-based WPA system will leverage the latest network technology to be the most effective during an emergency, now and in the future, for the benefit of Canadians

7. As the Commission is well aware, the CISC Network Working Group's WPA work concluded to date has examined and begun testing a cell broadcast system with alert messages delivered over Long Term Evolution (LTE) networks, the most advanced network technology available. CWTA strongly submits that the regulatory framework for WPA identify cell broadcast as the preferred technology for mandatory WPA in Canada.
8. A cell broadcast-based WPA system leverages a little-used control channel of wireless networks to ensure that emergency alert messages are not delayed due to the extra network traffic that ultimately results from an emergency situation. In fact, a broadcast immediate alert message will reach all users in an affected area within seconds of being sent. This delivery mechanism facilitates a high probability of immediate delivery of every alert message (subject to network coverage and device readiness). Network traffic will not interfere with this little-used control channel. SMS-based WPA messages, on the other hand, could be delayed by hours due to network congestion.

9. A WPA system based on the most recent standardized technology will also be more sustainable and more capable of incorporating new technological advances in the future. For instance, smartphone location technology could potentially be incorporated to add additional accuracy to message distribution. Such enhancements would not be possible through WPA systems that are not based on modern network technology.
10. While LTE service remains an aspirational goal in many other countries, it is the current network technology in Canada. Canada has the second most LTE networks in the world and according to the Commission's research, more than 92.8% of Canadians had access to LTE service at the end of 2014.²
11. Indeed, virtually all devices sold in Canada today are LTE enabled, so more Canadian consumers will be using LTE networks as they replace their previous devices, which is happening at a rapid pace. Canadians replace their mobile device, on average, every 34 months. This rate increases for Canadians aged 18 to 34, who replace devices every 28 months.³ Further, 83% of all Canadian wireless data traffic in 2015 traveled on 4G networks.⁴ The data suggest that the vast majority of Canadians would be able to receive WPA messages over an LTE-based cell broadcast system once the service is fully implemented.

Wireless public alerts should be mandatory for service providers

12. The reach, use and precision of wireless devices make them the ideal platform to disseminate emergency alert messages affecting life and property to Canadians. Warnings of severe, imminent threats have the potential to save lives, and should therefore be supported by a regulatory framework that requires service providers to participate in the dissemination of alerts to all Canadian wireless users. We submit the following parameters that should guide the mandatory distribution and reception of wireless alerts.
13. Participation in WPA should be mandatory for all Canadian wireless service providers using an LTE network, including primary brands, extension brands and resellers, in areas where emergency management officials (EMOs) have committed by signed agreements with the National Alert Aggregation and Dissemination (NAAD) administrator to participate in the public alerting system. Disseminating alert messages over any public alerting system largely falls under the auspices of provincial and territorial public safety authorities, who will determine if and when they will leverage WPA irrespective of telecommunications regulations.
14. There is no value in requiring wireless service providers to invest in implementing WPA if the system will not be used to its full potential. Rather, requiring WPA be technically implemented by wireless service providers in areas where the system will not be leveraged by public safety authorities will cause confusion and dissatisfaction among consumers. The regulatory framework for WPA should therefore specify that all wireless service providers operating an LTE network must enable the WPA system within a specified timeframe once the

² CRTC: *Communications Monitoring Report 2015: Telecommunications Sector*.

³ *Understanding Cell Phone Recycling Behaviours*, 2015

⁴ Cisco, *VNI Mobile Forecast Highlights, 2015-2020*.

provincial public safety authority has committed to using the system via signed agreement with NAAD administrator, and then, always subject to the single set of national standards. Enshrining this principle in the regulation will also provide certainty to the EMOs that the WPA system will be available within a fixed timeframe once it has requested the necessary investments be made.

Service providers will require at least one year to make the necessary investments to implement the technology needed to enable WPA

15. Implementing WPA will require significant time and investments by wireless service providers. CWTA's service provider members estimate that they will each require at least one year from the date of a final decision on standards and protocols to fully implement the technology to enable WPA over cell broadcast technology. CWTA therefore submits that the regulatory framework should provide the service providers at least one year from the final decision on standards to implement WPA on their LTE network once requested by the relevant provincial public safety agency to do so.
16. CWTA's members estimate that enabling WPA nationally would require the wireless industry to invest an estimated \$18-\$25 million. Each service provider will determine how to account for this essential investment. However, potential cost impacts could be minimized by ensuring service providers need to only invest in a single, forward-looking WPA system. Additionally, CWTA submits that as with the NPAS, the NAAD System administrator should not be permitted to charge wireless service providers for interconnection, testing, or for messages transmitted.

A single national standard for WPA technology and alert standards is critical

17. CWTA typically submits that regulatory requirements should be technology agnostic to ensure flexibility and avoid unintended consequences. However, the wireless industry is committed to implementing a cell broadcast WPA system on the leading-edge network technology that Canada is a world leader in deploying. With the industry fully aligned, a regulatory requirement to enable WPA over LTE would further assist deployment by ensuring the system will be forward-looking, thereby reducing potential costs of also deploying WPA on legacy networks.
18. A single, national standard for the WPA interface will also greatly benefit Canadians receiving WPA messages. Mandating the ATIS standard for the common look and feel of the cell broadcast interface will help authenticate messages because consumers will receive the same alert – in terms of appearance, notification sound and vibration cadence – regardless of their service provider or mobile device. For instance, once a single, national WPA system is in place, CWTA intends to decommission its existing SMS-based Wireless AMBER Alerts program so as to avoid replication and confusion. The ATIS standard also cannot be spoofed, which further helps assure Canadians of authenticity of alert messages.
19. EMOs would also be best served by the simplicity of a single standard for WPA messages in Canada. Multiple WPA systems would result in different message requirements and limitations, and would require emergency

alerting authorities to craft multiple messages for every alert. A single national standard will simplify and streamline the emergency message distribution processes for alerting officials and help ensure alerts reach intended targets as quickly as possible.

WPA should be fully tested and promoted across Canada

20. CWTA submits that a CRTC Decision will be a sufficient measure to ensure full participation by the wireless industry. Once implemented, service providers recommend testing their WPA system five times per year, as is currently done for NPAS – once each quarter and during Emergency Preparedness Week.
21. The WPA system should also be effectively promoted so Canadians are aware that they will be receiving public alerts on their mobile devices. An effectively promoted awareness campaign should include participation from the wireless industry, the NAAD administrator and the Commission.
22. CWTA notes that in Broadcasting Decision 2011-438, the Commission required the NAAD administrator, Pelmorex Communications Inc., to develop – in cooperation with the Pelmorex Alerting Governance Council – and fund a two-year, \$2 million public awareness campaign for the NPAS. CWTA submits that the NAAD administrator should also be required to fund an awareness campaign for the WPA system. CWTA would also promote the WPA system through social media and other channels and would welcome similar efforts from the Commission.

Other considerations – limitation of liability

23. CWTA appreciates the ability to raise the issue of limitation of liability provisions on behalf of the wireless industry. Past CRTC decisions related to mandatory emergency services have recognized the principle that wireless service providers should not be held liable for the content of emergency messages sent over wireless networks or resulting damages, among others. Specifically, Telecom Decision CRTC 2003-53, which established the conditions for emergency E9-1-1 services offered by wireless service providers, set out limitation of liability provisions “to apply to wireless carriers in respect of emergency services provided to end-users on a mandatory basis.” CWTA submits that the Commission’s regulatory framework for WPA services should contain a similar provision.

Conclusion

24. The wireless industry has always embraced its responsibility to enable and facilitate any applications that can benefit the health and safety of Canadians by leveraging the reach and use of the wireless network and wireless devices. These characteristics make wireless devices the ideal platform to disseminate emergency alert messages affecting life and property to Canadians. That is why all service providers have been actively participating in the CISC Network Working Group dedicated to developing the standards needed to test and implement a national wireless public alerting system based on the latest and most effective mobile technologies.

25. CWTA therefore welcomes the Commission's intervention into this matter and submits that a regulatory framework for WPA in Canada should be based on cell-broadcast technology over LTE networks for the benefit of Canadians. The forward-looking system should also be mandatory for service providers, use a single standard for the message interface, and be fully tested and promoted in Canada.

26. We appreciate the opportunity to participate in this important proceeding.

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