Canada: 911 Technology Upgrade Mandated by CRTC

Tracey Ford
Ashley McCulloch
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Summary

On February 2, 2009 the Canadian Radio-television Telecommunications Commission (CRTC) announced that Canadian wireless service providers must update their 911 services by February 1, 2010. In addition, any new wireless companies that enter the Canadian market after February 1, 2010 must also offer enhanced 911 services. Currently, the technology that Canadian wireless carriers utilize does not have the ability to locate the exact position of where an emergency 911 call is originating, it can only determine the tower receiving the signal. Therefore, wireless companies must implement a system using GPS, triangulation, or a combination of both. This mandate will provide business opportunities for U.S. cell phone location technology providers as Canadian wireless carriers prepare to purchase new location systems in the near future.

CRTC Orders Canadian Wireless Carriers to Upgrade 911 System

With over 20 million wireless subscribers in Canada, more than half of the 911 calls are coming from cellular phones and it is vital for responders to have the ability to accurately track and locate emergency callers. The CRTC mandated the improvement in 911 services after several accidents which resulted in death because emergency responders were unable to find the callers due to Canada's current out-of-date 911 technologies. At the moment, emergency dispatchers can only determine the cellular phone number and location of the tower receiving the signal. This means that the dispatcher is only able to identify the general area of the caller based on the service area of the tower. This could mean that emergency responders must search up to four kilometers from the tower in urban areas and 20 kilometers in rural regions.

Beginning February 1, 2010 the CRTC will require that 911 services must be able to provide to the dispatcher the location of the caller's cellular device within a maximum of 300 meters for most calls as well as to be able to provide the caller's cellular phone number. In order to achieve this, the CRTC has set out the guideline that a wireless service carrier must use a technology that includes a Global Positioning System (GPS), triangulation technology or a combination of both.

GPS technology is beneficial in rural areas due to the fact that the number of tall buildings in urban regions can obstruct the line-of-sight needed for the satellites to interpret location information. Wireless companies that choose to exclusively use the GPS system will have to require that their customers purchase GPS equipped cell phones. On the other hand, triangulation is better suited for urban areas, which contain numerous towers, since this technology uncovers the caller's location by measuring the cell phone signal's distance from the nearest tower. Cellular service providers that opt for triangulation will not need their clients to purchase new cell phones to take advantage of this technology. Another option available for wireless providers is to use a combination of both GPS and triangulation. This alternative is assumed to be the preferred choice among Canadian cell phone companies because using only one method may prove to be unreliable.

The CRTC has also determined that the three national wireless carriers (Rogers Communications, Bell Mobility and Telus) will incur the costs of the 911 service upgrade as they have the ability to recover these expenses through the 9-1-1 fees customers pay on their monthly bills or by the revenue created from offering new services. This decision has ended a long period of disagreements between the cell phone companies and the municipalities over who will be paying for the upgrade. Although it is still unknown how much the installation of the new technology will cost, estimates range from tens to hundreds of millions of dollars.

The implementation of the new 911 system will be spread out over the next 12 months, with a deadline of May 4, 2009 for industry representatives and emergency dispatch officials to present a proposed roll-out schedule to the

CRTC. Canadian wireless service provider Rogers Communications has announced that they plan on testing new 911 location technologies within the next several months.

Implications for U.S. Companies

U.S. companies who provide GPS or triangulation technologies that may be utilized by telecom companies for the purposes of 911 location may find opportunities in the coming year with mobile phone companies in Canada.

For More Information

The U.S. Commercial Service in Ottawa, Canada can be contacted via e-mail at: tracey.ford@mail.doc.gov; Phone: (613) 688-5406; Fax: (613) 238-5999; or visit our website: http://www.buyusa.gov/canada/en/

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