


# Oregon Department of Transportation Information Systems



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June 29, 2007

Mr. Donald Vella  
RGA International, Inc.  
2706 Horseshoe Drive South, Suite 227, Naples, FL 34104  
(800) 836-3400  
[Donnie@rgai.net](mailto:Donnie@rgai.net)

Subject: Letter of Interest  
Regarding: Cellular Messaging Alert System

Dear Mr. Vella,

In as much as I would like to conduct a Beta test on your Cellular Messaging Alert System (CMAS)<sup>™</sup> product in Oregon I would like to have you address a few issues for me. I had a meeting with AT&T Wireless representatives on June 7th and they voiced some objections and concerns:

AT&T voiced the following:

- a) Prefer we wait for the outcome of the FCC's Commercial Mobile Service Alert Advisory Committee's recommendation for a solution to the inclusion of cell phones to the EAS.
- b) Their preference would be that the eventual solution be a National effort, rather than State by State.
- c) Concerns regarding the latency of SMS message delivery in mass to a regional defined area.
- d) Took issue with the potential to overload their network with SMS delivery, thus disrupting important voice calls in an emergency situation.
- e) Their position is that SMS, per se, is not geographically targetable; therefore, the CMAS system would not be geographically targetable.

In our meeting with the AT&T representatives, we were made keenly aware to the drawbacks to utilizing Cell Broadcast, (time and money), as a cellular solution. Keeping that in mind, we are sensitive to how long implementation of a solution will take and the cost to both us and the wireless carriers. Please address these concerns so that we can make a decision as to what is in our emergency management's best interest.

Sincerely,



Ben Berry  
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Oregon Department of Transportation  
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Ben Berry  
Chief Information Officer  
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555 13th Street NE, Suite 1  
Salem, OR 97301-4166  
July 2, 2007

Mr. Berry,

Thank you for the opportunity to have the CMAS team respond to some concerns that were raised from your meeting with AT&T Wireless representatives on June 7<sup>th</sup> as it relates to Oregon's efforts to find a solution to the inclusion of cellular phones into your public alert system. I have addressed them one at a time, as you have relayed them to us.

**1 - AT&T would prefer The State of Oregon waits for the outcome of the FCC's Commercial Mobile Service Alert Advisory Committee's recommendation for a solution to the inclusion of cell phones to the EAS.**

**Answer:** The problem with waiting for the outcome of the CMSAA Committee is that its eventual outcome is only a recommendation. At the Federal level, based on the WARN Act, the wireless carriers' participation is voluntary. If the inclusion of cell phones is part of the overall solution to the EAS, then the direction will have to come at the State level.

Here's a recent quote from Lt. Governor John Garamendi of California on this very issue, "I am aware that there is federal legislation concerning this issue, and that the FCC is now working on a national emergency alert program. We will work in conjunction with the federal effort. However, if history is an indicator, the federal government will not act as quickly as we can in California. The urgency of providing this warning system must not be tied up in a bureaucracy, and that is why we in California should continue to move forward on establishing this system now."

**2 - AT&T's preference would be that the eventual solution be a National effort, rather than State by State.**

**Answer:** The eventual solution will be a National effort. However, the solution will be determined and implemented at the State level. Once the first State has the appropriate model in place every other State will quickly adopt it. California Assembly Bill 2393 empowers the California PUC to find the solution for the integration of cell phones into their existing public notification systems and funds that effort with \$596,719.00.

The wireless carriers response to CA Assembly Bill 2393, "The timeline established under the WARN Act would have the FCC adopting standards and protocols based on CMSAAC recommendations in the second half of 2008 (approximately two years after the enactment of the WARN Act). The timeframe of this process is warranted given the highly complex technical aspects of devising an emergency alert system." Once again, the wireless carriers' participation in the eventual recommendations of the CMSAAC is **voluntary**.

### **3 - AT&T has concerns regarding the latency of SMS message deliver in mass to a regional defined area.**

**Answer:** We at CMAS have studied this very issue at length and have documented engineering white papers posted on the FCC's CMSAAC site addressing it. Technology exists today that will allow the wireless carriers to dynamically allocate additional dedicated system control channels to increase the throughput of SMS in times of emergency. In the end, we have determined that there are several solutions that can adequately attack the latency issue. An excellent example of a technology solution provider is Airwide, (see below).

#### **AIRWIDE ENABLES SMS EMERGENCY MESSAGING ALERTS FOR PUBLIC SAFETY AND AWARENESS**

June 14, 2007

*Mobile messaging infrastructure improves efficiency, enables instantaneous capacity burst to ensure immediate, prioritized delivery of critical text messages*

**BURLINGTON, Mass. and READING, U.K., June 14, 2007** - Airwide Solutions, the leading provider of mobile messaging infrastructure and applications, today announced in conjunction with CTIA's Wireless Safety Week, that the company is spearheading the messaging infrastructure industry's drive to make better use of mobile phones to aid in emergency situations. The Airwide Emergency Messaging Solution (EMS) is the first carrier-class system to help operators meet the growing need for public safety notifications, leveraging the untapped resource of global handset support for text messaging. Unlike other systems that initiate one message for each recipient, Airwide EMS provides optimal efficiency by initiating one message that is delivered with unmatched speed to multiple subscribers.

Text messaging is an effective and reliable means of communicating during an emergency situation, and is a powerful way to reach people on the move or away from conventional media (i.e. television and radio). However, traditional solutions and most mobile infrastructures cannot support the capacity or efficiency required to deliver thousands of text messages in minutes instead of hours. Airwide EMS helps mobile operators optimize their network for maximum efficiency and enables the instantaneous bursting of capacity to support the delivery of thousands of text messages each second. Moreover, Airwide will not charge operators who exceed their traffic licenses for emergency alerts, enabling the widest reach in the shortest amount of time.

"The universal support for text messaging worldwide makes it an ideal vehicle for communicating critical information during times of emergency, and Airwide's involvement in this initiative solidifies the company's position as an innovation leader in the messaging industry," said Greg Latour, senior vice president of technology development for Cellular South. "The viability of emergency text messaging is an invaluable asset in emergency management, and is a service that is of great interest to Cellular South in our continued efforts to provide subscribers with messaging options that meet their needs - and help protect them - in the current global climate."

While some emergencies are strictly regional, others may require national notification for safety. Other situations may mandate broad public awareness across borders while still others are localized to a particular group membership. The common denominator is that a message needs to reliably and quickly reach a group of individuals within minutes of an

impending or currently occurring emergency. Airwide EMS provides the ideal foundation for implementing a rapid and effective notification system. Airwide EMS also represents a further step in addressing mobile operator requirements for Mobile Messaging 2.0 goals of meeting user demand for more control and functionality from messaging applications.

"More than 2.5 billion people worldwide use mobile phones, and for most people these devices never leave their sides. The industry is just realizing how these fixtures of everyday life can be used in real time to keep people safe," said Vince Kadar, CTO of Airwide Solutions. "Airwide EMS helps tap this vastly underutilized resource, giving the general public and specific groups advance notice that can make a critical difference in emergency situations."

### **The Airwide Approach - Add Capacity, Improve Efficiency**

Unlike other approaches, Airwide EMS enables an operator to deliver a single copy of an emergency text message to multiple subscribers as opposed to generating one for each recipient. The configuration allows operators to capitalize on the internal efficiencies of the Airwide messaging architecture, while also offering the ability to burst capacity when needed. Airwide's tiered Fusion architecture is ideal for delivering these messages with industry-leading performance because it avoids the bottlenecks of traditional messaging architectures. The Fusion architecture breaks up monolithic messaging infrastructures into tiers, including: storage, access and delivery, control, and application, and this componentized approach enables the most rapid, efficient and intelligent delivery of messages available in the industry today.

### **Flexible Emergency Messaging Options**

The Airwide EMS incorporates functionality for creating and administering group lists as well as prioritizing message traffic, and is available in an array of packages to meet the varying needs of operators worldwide. The componentized nature of Airwide's mobile messaging infrastructure offerings, a key differentiator in the market, ensures operators can purchase only what they need. In addition, since all of Airwide's solutions are based on open standards they can be easily integrated with other products.

The varying configurations of the Airwide EMS are built on a foundation of elements from Airwide's core product line, including AirGate, AirMessenger Router and AirManager Reporting.

**AirGate** takes a single message and a list of recipients and generates the individual messages for delivery by AirMessenger Router, manages the connection settings and translates messages between the formats used by external systems and the formats used by the mobile network. This ensures that all messages reach the recipients in the format that is supported by their handset and network. AirGate also allows operators to prioritize the inbound traffic, which is a key enabler of an effective emergency alert system.

**AirMessenger Router** optimizes the messaging infrastructure by incorporating first delivery attempt, load distribution and routing intelligence so that traffic can be dynamically allocated across the network's messaging elements in the most efficient manner.

**AirManager Reporting** collects, analyzes and summarizes messaging data to produce performance and management reports. In the context of the Airwide Emergency Messaging configuration, AirManager Reporting enables operators to see how effectively the emergency messages were delivered, enabling them to further improve the performance of their network.

For additional information about Emergency SMS Alerts, download Airwide's whitepaper "Is SMS ready for SOS?" at [www.airwidesolutions.com](http://www.airwidesolutions.com).

**4 - AT&T has issues with the potential to overload their network with SMS delivery, thus disrupting important voice calls in an emergency situation.**

**Answer:** With the implementation of Airwide Solutions burstable SMS delivery technology, we see the disruption of important voice calls as highly unlikely. However, the wireless carriers can offer certain emergency personnel and high ranking government officials a priority code that is entered before the transmission of their voice call that will ensure their connectivity on the network.

**5 - AT&T's position is that SMS, per se, is not geographically targetable, thus your CMAS system would not be geographically targetable.**

**Answer:** SMS in itself is not geographically targetable, however, the CMAS system is. CMAS utilizes the present day Bellcore specification for a V&H coordinate of the virtual wireless end office that is then translated to a longitude / latitude coordinate on a map. Once we have the cooperation of the wireless industry, we'll have the GPS location of the individual tower location. Once we have incorporated that information into our mapping technology, we'll be capable of defining a target area down to a single cellular tower.

In summary, AT&T/Cingular's "**Briefing on Wireless Emergency Alert Service**" did a very credible job of describing all of the misgivings of utilizing a cell broadcast solution, (handset battery drain, will not receive the alert if the handset is in use, no present day deployment by US carriers due to the lack of commercial opportunities and return on investment). This same report also pointed out the failure of opt-in subscription systems, citing the dismal participation in the CTIA's Amber Alert program. Also, there are technology solutions that would require the consumer to download an application to their handset. This would allow the governmental notifying agency to know where that consumer is at any given time, which means the public would never engage it.

That leaves SMS as the only viable alternative. CMAS makes it geographically targetable and we've solved the latency issues.

I hope these answers have help dissuade the concerns that were raised in your recent meeting with the AT&T representatives. I look forward to our continuing relationship on providing the State of Oregon with very best cellular alert system available.

As always, thank you for your efforts and involvement.

Sincerely,

Donald J. Vella  
President