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TeleCommunication Systems Selected by U.S. Department of Homeland Security to Perform Second Phase of Research on Improving Geo-Targeting Accuracy for Wireless Emergency Alerts

TCS Teams with ClearTalk Wireless for Real-World Validation

Note: Comtech Acquired TCS on 2/23/2016

ANNAPOLIS, Md., Nov. 13, 2015 /PRNewswire/ -- TeleCommunication Systems, Inc. (TCS) (NASDAQ: TSYS), a world leader in secure and highly reliable wireless communication technology, today announced that the U.S. Department of Homeland Security (DHS) Science and Technology Directorate (S&T) will sponsor TCS for the second phase of research, "Constructing Algorithms that Utilize RF Cell Site Propagation Footprints for Wireless Emergency Alerts (WEA)." The research focuses on using area footprints associated with radio frequency (RF) coverage to improve geo-targeting granularity and accuracy for delivery of WEA messages. TCS, which performed the first phase of this study over six months in 2014, is now partnering with ClearTalk Wireless to validate the phase-one findings in a real-world carrier environment.

News Facts:

- | WEA, established by the WARN Act in 2006, is a voluntary national emergency alert system that is designed to deliver critical and emergency messages to the public. WEA messages include presidential emergency alerts, AMBER Alerts, and warnings of imminent national and local threats to life and property, such as natural and man-made disasters.
- | TCS partnered with ClearTalk Wireless to utilize the carrier's mobile network. The eight-month study, which kicked off in June 2015, includes field-testing with the mobile operator to verify theoretical concepts in a real-world environment. The field-testing will not affect current ClearTalk Wireless customers or affect the carrier's current WEA notification system.
- | The outcome of TCS' research will provide DHS S&T with recommendations to enhance geo-targeting methods with the goal of providing more focused geo-targeting alert area notifications to ultimately increase the safety of wireless device users.
- | The outcome of TCS' research will also help standardize algorithms and data management processes that will be used to increase citizens' awareness of pending emergencies within their immediate geographic location. Improved geo-targeting will provide a better user experience and higher alert notification integrity.
- | The method developed in this project can be deployed without changes to existing networks, protocols or handset software. While the Federal Communications Commission's Communications, Security, Reliability, and Interoperability Council (CSRIC) working group continues to refine the standard for improving WEA geo-targeting accuracy, this method can complement the CSRIC effort.
- | As a thought leader and current member of the CSRIC committee, TCS is dedicated to developing innovative solutions to ensure public alerts are available when and where required.

TCS Commercial Software Group, Mobility Solutions Group Vice President, Dr. Keith Bhatia said:

"It is always a pleasure to work with DHS, and we share their commitment to advancing WEA and E911 services. By successfully designing and testing our algorithm using cell RF propagation with commercial off-the-shelf software, we can improve emergency alert coverage and further protect the public from life threatening events. ClearTalk Wireless is known for creating simple and affordable wireless solutions, and we are pleased to be working with them as we conduct the real-world environment analysis."

ClearTalk Wireless, Director of Regulatory Compliance & Engineering, Paul Rauscher said:

"As a mobile operator, it is important that we are continuing to evolve our public safety solutions in order to ensure that our customers receive alerts in potential emergency situations. It is encouraging that the method developed during the first phase of the project can be deployed without changes to our existing network. We are pleased that TCS recruited us to participate in the real-world deployment portion of this study, and look forward to the results and the impact they will have on DHS work and the future of the WEA service."

TCS' secure mobile communication technology has powered the delivery of five trillion text messages and more than 65 million annual wireless emergency calls. TCS' wireless technology serves U.S. military customers with mission-critical solutions. TCS operates the only non-operator TL 9000-certified network operations center supporting E9-1-1, text messaging and location-based solutions. A member of the TIA and ATIS standards bodies, TCS has been actively involved in WEA-related standards working sessions since January 2008.

About ClearTalk Wireless

FLAT WIRELESS, LLC dba ClearTalk was created by a group of investors holding a common belief that wireless sales and services should be simple for the customer. In November of 2007, Flat Wireless was organized and chose to feature products and services under the ClearTalk Wireless Brand. The company currently offers reliable, affordable, nationwide, unlimited wireless service with no contract, no hidden fees, and no surprises. ClearTalk Wireless offers service in Arizona, California, Texas, and Eastern New Mexico, as well as nationwide coverage coast-to-coast, covering over 275 million people.

About Department of Homeland Security Science & Technology Directorate

The Department of Homeland Security (DHS) Science & Technology (S&T) Directorate's First Responders Group (FRG) is responsible for the testing, evaluation, research, and development of the Wireless Emergency Alerts (WEA) Service, a national capability to deliver relevant, timely, effective, and targeted alert messages to mobile devices. WEA is part of the Federal Emergency Management Agency (FEMA) Integrated Public Alert and Warning System (IPAWS), providing an additional dissemination path for alert and warning messages.

The S&T FRG fulfills a congressional mandate to focus on WEA research and development efforts by assessing current and future technologies that affect WEA, such as geo-targeting, and researching the public response to alerts. These activities encompass a multi-year effort, expected to conclude in the next two years, which will influence where future research funding is directed.

About TeleCommunication Systems, Inc.

TeleCommunication Systems, Inc. (TCS), headquartered in Annapolis, Maryland, is a world leader in secure and highly reliable wireless communications. Our patented solutions, global presence, operational support and engineering talent enable 9-1-1, commercial location-based services and deployable wireless infrastructure; cybersecurity; defense and aerospace components; and applications for mobile location-based services and messaging. Our principal customers are wireless network operators, defense and public safety government agencies, and Fortune 150 enterprises requiring high reliability and security.

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