ATIS-0700041.v002

ATIS Standard on -

Wireless Emergency Alerts (WEA) 3.0 Device-Based Geo-Fencing (DBFG)

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Wireless Emergency Alerts (WEA) 3.0 Device-Based Geo-Fencing (DBGF)

Alliance for Telecommunications Industry Solutions

Approved August 26, 2022

Abstract

This standard specifies methods for delivering the Alert Originator provided geometric shapes (circle(s) or polygon(s)) defining the Alert Area to the mobile device along with the WEA 3.0 alert text, as well as the encoding of the WEA 3.0 Warning Area Coordinate (WAC) Information Element (IE) for the geometric shapes.

Foreword

The Alliance for Telecommunications Industry Solutions (ATIS) serves the public through improved understanding between carriers, customers, and manufacturers. The Wireless Technologies and Systems Committee (WTSC) develops and recommends standards and technical reports related to wireless and/or mobile services and systems, including service descriptions and wireless technologies. WTSC develops and recommends positions on related subjects under consideration in other North American, regional, and international standards bodies.

The mandatory requirements are designated by the word *shall* and recommendations by the word *should*. Where both a mandatory requirement and a recommendation are specified for the same criterion, the recommendation represents a goal currently identifiable as having distinct compatibility or performance advantages. The word *may* denotes an optional capability that could augment the standard. The standard is fully functional without the incorporation of this optional capability.

Suggestions for improvement of this document are welcome. They should be sent to the Alliance for Telecommunications Industry Solutions, WTSC, 1200 G Street NW, Suite 500, Washington, DC 20005.

At the time of consensus on this document, WTSC, which was responsible for its development, had the following leadership:

M. Younge, WTSC Chair (T-Mobile USA)
P. Musgrove, WTSC Vice Chair (AT&T)
T. Brooks, WTSC SN Chair (T-Mobile USA)
P. Musgrove, WTSC SN Vice Chair (AT&T)
F. Khatibi, Technical Editor (Qualcomm)

The Systems & Networks (SN) subcommittee was responsible for the development of this document.

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1.1 Scope

On January 30, 2018, the Federal Communications Commission (FCC) adopted a Second Report and Order (R&O) and Second Order on Reconsideration to enhance the effectiveness of Wireless Emergency Alerts (WEA) [Ref 3]. The Second R&O seeks to improve the accuracy emergency managers can geographically target the delivery of WEA messages to areas within their jurisdiction and can precisely target at-risk populations while minimizing disruption to others.

Specifically, the Second R&O requires Participating Commercial Mobile Service Providers (CMSPs) to meet the new requirements without affecting the 360-character text allotment:

- Deliver alert messages to an area that matches the target area specified by the alert as a circle or polygon to 100 percent of the target area with no more than 0.1 of a mile overshoot or to an area that best approximates the target area on only those elements of its network infrastructure incapable of matching the target area.
- Preserve alert messages in a consumer-accessible format and location for at least 24 hours after the message is received on the mobile device, or until deleted by the user.

  NOTE: Some CMSPs may interpret “is received” to mean “is presented.”

The use of the term WEA in this specification refers to WEA 3.0, unless otherwise indicated. This specification is intended for use by participating CMSPs per the FCC definition described in ATIS-0700035, *Wireless Emergency Alert (3.0) Service Description* [Ref 100], and all references to CMSPs in this specification refer to participating CMSPs.

The regulatory background is described in detail in the Service Description in ATIS-0700035 [Ref 100].

1.2 Purpose

The purpose of this standard is to specify methods for delivering the Alert Originator provided geometric shapes (circle(s) or polygon(s)) defining the Alert Area to the mobile device along with the WEA 3.0 alert text, as well as the encoding of the WEA 3.0 Warning Area Coordinate (WAC) Information Element (IE) for the geometric shapes.

2 References

The following standards contain provisions which, through reference in this text, constitute provisions of this ATIS Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this ATIS Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

2.1 Normative References

[Ref 1] FCC 08-99, *Federal Communications Commission First Report and Order in the Matter of The Commercial Mobile Alert System*; April 9, 2008.[1]

[1] This document is available from the Federal Communications Commission. <http://www.fcc.gov/>