ATIS-0700006.v003

ATIS Standard on -

Wireless Emergency Alert (WEA) 3.0 via GSM/UMTS Cell Broadcast Service Specification

As a leading technology and solutions development organization, the Alliance for Telecommunications Industry Solutions (ATIS) brings together the top global ICT companies to advance the industry's most pressing business priorities. ATIS' nearly 200 member companies are currently working to address the All-IP transition, 5G, network functions virtualization, big data analytics, cloud services, device solutions, emergency services, M2M, cyber security, network evolution, quality of service, billing support, operations, and much more. These priorities follow a fast-track development lifecycle — from design and innovation through standards, specifications, requirements, business use cases, software toolkits, open source solutions, and interoperability testing.

ATIS is accredited by the American National Standards Institute (ANSI). The organization is the North American Organizational Partner for the 3rd Generation Partnership Project (3GPP), a founding Partner of the oneM2M global initiative, a member of the International Telecommunication Union (ITU), as well as a member of the Inter-American Telecommunication Commission (CITEL). For more information, visit www.atis.org.

Published by

Alliance for Telecommunications Industry Solutions
1200 G Street, NW, Suite 500
Washington, DC 20005

ATIS-0700006.v003

ATIS Standard on

Wireless Emergency Alert (WEA) 3.0 via GSM/UMTS Cell Broadcast Service Specification

Alliance for Telecommunications Industry Solutions

Approved October 21, 2019

Abstract

This Standard describes the use of the GSM/UMTS Cell Broadcast Service for the broadcast of WEA messages and includes the mapping of WEA application level messages to the Cell Broadcast Service message structure. This Standard supports the requirements of the FCC Report & Order 16-127 and the FCC Order on Reconsideration 17-143 and is an update to ATIS-0700006.v002.

Foreword

The Alliance for Telecommunication 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:

D. Zelmer, WTSC Chair (AT&T)

M. Younge, WTSC Vice Chair (T-Mobile)

P. Musgrove, WTSC SN Chair (AT&T)

G. Schumacher, WTSC SN Vice Chair (Sprint)

P. Sanders, Technical Editor (one2many)

The WTSC Systems and Networks (SN) Subcommittee was responsible for the development of this document.

Table of Contents

Table of Figures

Table of Tables

ATIS Standard on –

WEA 3.0 via GSM/UMTS Cell Broadcast Service Specification

Preface

The authority-to-individual emergency alerting capability to mobile devices was originally called Commercial Mobile Alert System (CMAS) in the first three Reports and Orders from the FCC. In February 2013, the FCC renamed CMAS to Wireless Emergency Alerts (WEA) with associated updates to the appropriate sections of Part 11 of the 47 CFR. Subsequently, the FCC has issued additional enhancements and rules for this government-to-individual emergency alerting capability to mobile devices, and these are identified as modifications to WEA.

Consequently, this specification may use both the term CMAS and the term WEA. These terms should be considered as equivalent terms, with WEA being the preferred term.

This ATIS specification is based upon the cumulative WEA enhancements identified in FCC WEA related Report and Orders up through the January 2018 FCC Report & Order and Second Reconsideration 18-4 [Ref 23]. For more information on the FCC regulatory history applicable to WEA as well as related ATIS WEA specifications, refer to ATIS-0700035, *Wireless Emergency Alert (WEA) 3.0 Service Description* [Ref 20]. Note that WEA 3.0 Device-Based Geo-Fencing (DBGF) is not applicable to GSM and UMTS.

1 Scope, Purpose, & Application

1.1 Scope

The scope of this standard is the support of Wireless Emergency Alert (WEA) 3.0 via the Global System for Mobile Communications (GSM)/Universal Mobile Telecommunications System (UMTS) Cell Broadcast Service. This standard covers the mapping of WEA 3.0 messages onto the 3GPP-defined Cell Broadcast Service.

This standard is not intended to describe an overall end-to-end WEA 3.0 or Cell Broadcast architecture and may include clarifications of Cell Broadcast Service that may be lacking in existing 3GPP specifications. The implementation guidelines and best practices for the Cell Broadcast Service are provided in a separate ATIS Standard [Ref 4] which contains clarifications applicable to any application that uses the Cell Broadcast Service and is not necessarily restricted to WEA.

The WEA 3.0 interface with the Federal network and the mobile device behavior upon reception of a WEA 3.0 alert is specified in separate standards [Ref 8 and Ref 9].

1.2 Purpose

The purpose of this standard is to describe the use of the GSM/UMTS Cell Broadcast Service for the broadcast of WEA 3.0 messages. The standard includes the mapping of WEA 3.0 application level messages to the Cell Broadcast Service message structure.

1.3 Application

This standard is applicable to the mapping of WEA 3.0 messages to the Cell Broadcast Service on GSM or UMTS networks.