ATIS-0700015.v004

ATIS Standard on -

ATIS Standard for Implementation of 3GPP Common IMS Emergency Procedures for IMS Origination and ESInet/Legacy Selective Router Termination

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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.

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ATIS Standard on

ATIS Standard for Implementation of 3GPP Common IMS Emergency Procedures for IMS Origination and ESInet/Legacy Selective Router Termination

Alliance for Telecommunications Industry Solutions

Approved July 2018

Abstract

This document identifies and adapts as necessary 3GPP common IMS emergency procedures for applicability in North America to support emergency communications originating from an IMS subscriber (wireline or wireless; fixed, mobile or nomadic) and terminating at an ESInet, or, for appropriate media, legacy emergency services network to support Multimedia Emergency Services (MMES).

It is the intent of this standard to support a full multimedia experience; therefore, simultaneous text, voice, pictures, and video are supported in this standard.

Foreword

As a leading technology and solutions development organization, the Alliance for Telecommunications Industry Solutions (ATIS) brings together the top global information and communications technology (ICT) companies to advance the industry's most-pressing business priorities. ATIS serves the public through improved understanding between carriers, customers, and manufacturers.

This standard was developed jointly between ESIF, PTSC, and WTSC.

The Emergency Services Interconnection Forum (ESIF) provides a forum to facilitate the identification and resolution of technical and/or operational issues related to the interconnection of wireline, wireless, cable, satellites, Internet and emergency services networks.

The Packet Technologies and Systems Committee (PTSC) develops and recommends standards and technical reports related to services, architectures, and signaling, in addition to related subjects under consideration in other North American and international standards bodies. PTSC coordinates and develops standards and technical reports relevant to telecommunications networks in the U.S., reviews and prepares contributions on such matters for submission to U.S. ITU-T and U.S. ITU-R Study Groups or other standards organizations, and reviews for acceptability or per contra the positions of other countries in related standards development and takes or recommends appropriate actions.

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.

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 initiation or issuance of the letter ballot for this document, the committees responsible for its development had the following leadership:

R. Hixson, ESIF Chair (NENA)
R. Marshall, ESIF First Vice Chair (Comtech)
J. Green, ESIF Second Vice Chair (Sprint)

M. Dolly, PTSC Chair (AT&T)
V. Shaikh, PTSC Vice-Chair (Vencore Labs)

D. Zelmer, WTSC Chair (AT&T)
M. Younge, WTSC Vice Chair (T-Mobile)

F. Khatibi, Technical Editor (Qualcomm)

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1 Scope, Purpose, & Application

1.1 Scope

The scope of this standard is to identify and adapt as necessary 3GPP common IMS emergency procedures for applicability in North America to support emergency communications originating from an IMS subscriber (fixed, nomadic[1], or mobile) and delivered to an Emergency Services IP network (ESInet) or to a legacy Selective Router. ATIS-0700015.v002 specified procedures limited to voice and Global Text Telephony (GTT) [Ref 3] communication. ATIS-0700015.v003 expanded the procedures to incorporate additional multimedia including text, pictures, and video. This version (004) addresses issues associated with specific transfer models in an i3 ESInet.

While the main focus of this standard is IMS emergency service origination and in particular the associated impacts to an originating device and originating IMS network, the standard also covers related support from the access network and for location acquisition, subscriber home networks in the case of roaming, and considers support for service origination (e.g., call back) from a Public Safety Answering Point (PSAP).

This standard describes the IMS to ESInet interface, as well as the IMS to Selective Router interface. It identifies the types of media that can be delivered to each type of emergency services network.

With respect to 3GPP specifications, the scope of this standard is based upon capabilities defined in Release 12, except where explicitly noted otherwise. With respect to the NENA i3 standard [Ref 100], if there are any discrepancies between this standard and the NENA i3 standard concerning the definition of i3 architecture functional elements, interfaces, or procedures, the NENA i3 standard takes precedence.

1.2 Purpose

The purpose of this standard is to enable deployment in North America of support for Multimedia Emergency Services (MMES) calls[2] in the IP domain from originating networks that conform to 3GPP IMS specifications. The standard is intended to complement the NENA i3 standard [Ref 100] and to define any changes and limitations to the 3GPP IMS solution that are needed for operation in North America.

1.3 Application

The standard applies to support for MMES calls made using IMS in North America. More specifically, it only applies for those MMES services that establish a single SIP session and are able to properly function with only the service logic defined for the P-CSCF and E-CSCF as specified in 3GPP TS 23.167 [Ref 1] and in this standard. Any MMES-based service that requires additional service logic beyond what is defined in this standard, such as may be present in other service platforms like S-CSCFs or AS's as specified in 3GPP TS 23.228 [Ref 34] are for future study.

[1] Additional detailed support for nomadic use cases is for further study.

[2] In this standard, the term “calls” is used to mean requests, including voice, texts, etc.