ATIS-0700031

ATIS Standard on -

Location and Routing Support for Non-Operator-Managed Over the Top (OTT) Citizen-to-Authority Emergency Services

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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 and major U.S. contributor to 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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Location and Routing Support for Non-Operator Managed OTT Citizen-to-Authority Emergency Services

Alliance for Telecommunications Industry Solutions

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Abstract

This document defines technical methods in the case of an Operator-managed interconnected VoIP or Text Messaging over IP (ToIP) service by which location information can be acquired and conveyed for routing VoIP emergency calls or ToIP emergency sessions and made available for presentation to the appropriate Public Safety Answering Point (PSAP) for dispatch purposes. The standard also defines technical methods by which an operator of a user access network can acquire and convey location for an Over The Top VoIP emergency call or ToIP emergency session.

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:

S. Sherwood, ESIF Chair (Verizon)
R. Hixon, ESIF First Vice-Chair (NENA)
R. Marshall, ESIF Second Vice-Chair (Comtech)

M. Dolly, PTSC Chair (AT&T)
V. Shaikh, PTSC Vice-Chair (Applied Communication Sciences)

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

Farrokh Khatibi, Technical Editor (Qualcomm)

The IP Multimedia Subsystem (IMS) Emergency Procedures for IMS Origination and Emergency Services IP Network (ESInet) (IMSESINET) joint project group was responsible for the development of this document.

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1 Scope

The scope of this standard is twofold. First, to identify and evaluate technical methods by which an operator of a user access network can acquire and convey location used for routing an Over The Top VoIP emergency call or an Over The Top IP-based text messaging emergency session. Secondly, to identify and evaluate technical methods in the case of an IP Multimedia Subsystem (IMS)-based operator-managed interconnected VoIP or Text Messaging over IP (ToIP) service by which location information can be acquired and conveyed for routing VoIP or ToIP emergency calls. For both cases, the location information is made available for presentation to the appropriate Public Safety Answering Point (PSAP) for dispatch purposes.

In evaluating different methods, the standard considers feasibility, compatibility with existing deployment, security, privacy, regulatory constraints, and inter-operator charging. The standard applies to multiple access types including wireless (e.g., Long Term Evolution [LTE], Wi-Fi) and wireline (e.g., DSL) broadband networks.

The standard is intended to support location acquisition, conveyance, and dereferencing for the purposes of both routing and dispatch for an IP-based emergency call or text messaging session using voice Global Text Telephony (GTT) or text messaging made by a fixed, nomadic, or mobile subscriber in North America. Also, in this standard the term access network refers to 3GPP access technologies.

2 Normative 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 Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below.

[Ref 1] ATIS-0700015, *ATIS Standard for Implementation of 3GPP Common IMS Emergency Procedures for IMS Origination and ESInet/Legacy Selective Router Termination*.[1]

[Ref 2] draft-ietf-ecrit-phonebcp-20, *Best Current Practice for Communications Services in support of Emergency Calling*, September 2011.

[Ref 3] IETF RFC 6443, *Framework for Emergency Calling Using Internet Multimedia*.[2]

[Ref 4] IETF RFC 6881, *Best Current Practice for Communications Services in Support of Emergency Calling*.[2]

[Ref 5] 3GPP TS 23.271, *Technical Specification Group Services and System Aspects; Functional Stage 2 description of Location Services (LCS)*.[3]

[1] This document is available from the Alliance for Telecommunications Industry Solutions (ATIS), 1200 G Street N.W., Suite 500, Washington, DC 20005 at: < https://www.atis.org/docstore/product.aspx?id=28140 >.

[2] This document is available from the Internet Engineering Task Force (IETF) at: < http://www.ietf.org >.

[3] This document is available from the Third Generation Partnership Project (3GPP) at: < http://www.3gpp.org/specs/specs.htm >.