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**eCall requirements for IMS backwardcompatible solution
draft-jesske-ecrit-ecall-ims-00**

Abstract

This document discusses the requirements for a backward compatible solution to address eCall / emergency call requirements of carriers using the IMS.

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[1.](#) Overall Applicability

Uniform Resource Name (URN) for emergency and other Well-Known Services are well defined within [RFC5031](#) [2]. There are also existing proposals for automatic and manual ecall IN-Vehicles which defines their own URN's and additional procedures for vehicle specific eCalls. Due to the existing telecommunication world and their implementations a combination of both is needed. Specific the IMS (IP Multimedia Subsystem) of 3GPP needs an implementation which is backwardscompatible. Due to the fact that only one URN can be used within the request line of a SIP Message a new approach is needed. Therefore this document discusses the requirement to address a routing possibility for a eCall.

[2.](#) Conventions

The key words "MUST", "MUST NOT", "REQUIRED", "SHALL", "SHALL NOT", "SHOULD", "SHOULD NOT", "RECOMMENDED", "MAY", and "OPTIONAL" in this document are to be interpreted as described in [RFC2119](#) [1].

[3.](#) Overview

[RFC5031](#) [2] defines URN values for emergency calls. The values for the SOS subtree are sos.ambulance, sos.animal-control, sos.fire, sos.gas, sos.marine, sos.mountain, sos.physician, sos.poison and sos.police [draft-ietf-ecrit-ecall-01.txt](#) [3] proposes two additional URN for ecall. automatic and ecall.manual the sub-services 'sos' as specified in [Section 4.2 of RFC5031](#) [2].

Within the existing implementation in GSM networks for emergency call as specified in 3GPP TS 22.101 [4] the following requirements and code points are described:

It shall be possible to initiate emergency calls to different emergency call centers, depending on the type of emergency. The following types of emergency calls shall be possible:

- o Police
- o Ambulance
- o Fire Brigade
- o Marine Guard
- o Mountain Rescue
- o Manually Initiated eCall
- o Automatically Initiated eCall

....

It shall be possible to tie any emergency call number to any single emergency call type or to any combination of emergency call types.

This means in practice that a emergency Call Center from police must differentiate between automatic and manual eCalls. Same belongs to the other types like fire brigade Marine Guard ect.

Requirement:

Req-1: It shall be possible to tie a manually initiated eCall with different type of emergency type i.e. Police, Ambulance, Fire Brigade, Marine Guard and Mountain Rescue.

Req-2: It shall be possible to tie a automatically initiated eCall with different type of emergency type i.e. Police, Ambulance, Fire Brigade, Marine Guard and Mountain Rescue.

These requirements will not allow a second different URN Format as described in [draft-ietf-ecrit-ecall-01.txt](#) [3] . This draft adds two additional URN urn:service:sos.ecall.manual and urn:service:sos.ecall.automatic Which allows to address the ecall itself. But the requirement in 3GPP TS 22.101 [4] described will not be satisfied. Therefor this document only describes the requirements.

Thus a mechanism is needed to tie any emergency call number to any single emergency call type or to any combination of emergency call types.

4. IANA Consideration

Currently no consideration required.

5. Security Considerations

This document does not raise security considerations beyond those described in [RFC5031](#) [2].

6. Contributors and Acknowledgements

The author would like to thank Dieter Jacobsohn, Maik Kirsch and Thomas Dennert for clarifying the requirements on automatic and manual eCall in the existing GSM world.

7. Normative References

- [1] Bradner, S., "Key words for use in RFCs to Indicate Requirement Levels", [BCP 14](#), [RFC 2119](#), March 1997.
- [2] Schulzrinne, H., "A Uniform Resource Name (URN) for Emergency and Other Well-Known Services", [RFC 5031](#), January 2008.
- [3] Gellens, R. and H. Tschofenig, "'Next-Generation Pan-European eCall'", July 2014.
- [4] 3GPP, "3rd Generation Partnership Project; Technical Specification Group Services and System Aspects; Service aspects; Service principles (Release 11)", 3GPP TS 22.101 10.7.0, September 2012.

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