Source:	**Qualcomm Incorporated, Deutsche Telekom, Nokia Networks, TeliaSonera, Ericsson, Telecom Italia, Vodafone, TeleCommunication Systems, Alcatel Lucent**
Title:	**New WID: Evolution to and interworking with eCall in IMS**

Presented for: Approval

Agenda Item: 7.1

3GPP™ Work Item Description

For guidance, see 3GPP Working Procedures, article 39; and 3GPP TR 21.900.
Comprehensive instructions can be found at http://www.3gpp.org/Work-Items

Title: Evolution to and Interworking with eCall in IMS Stage2

Acronym: EIEI-Stage2

Unique identifier: 68xxxx

1   3GPP Work Area

	Radio Access
X	**Core Network**
X	**Services**

2   Classification of WI and linked work items

2.0   Primary classification

This work item is a …

	Study Item (go to 2.1)
X	**Feature (go to 2.2)**
	Building Block (go to 2.3)
	Work Task (go to 2.4)

2.1   Study Item

Related Work Item(s) (if any]		
Unique ID	**Title**	**Nature of relationship**

Go to §3.

2.2   Feature

Related Study Item or Feature (if any)		
Unique ID	Title	Nature of relationship

Go to §3.

2.3   Building Block

Parent Feature (or Study Item)		
Unique ID	Title	TS

This work item is …

	Stage 1 (go to 2.3.1)
X	Stage 2 (go to 2.3.2)
	Stage 3 (go to 2.3.3)
	Test spec (go to 2.3.4)
	Other (go to 2.3.5)

2.3.1   Stage 1

Source of external requirements (if any)		
Organization	Document	Remarks

Go to §3.

2.3.2   Stage 2

Corresponding stage 1 work item		
Unique ID	Title	TS
680004	Evolution to and Interworking with eCall in IMS	Defines the service requirements for eCall over IMS

Other source of stage 1 information		
TS or CR(s)	Clause	Remarks
22.101	2.2, 3.1, 22.4, A.27	

If no identified source of stage 1 information, justify:

Go to §3.

2.3.3   Stage 3

Corresponding stage 2 work item (if any)		
Unique ID	Title	TS

Else, corresponding stage 1 work item		
Unique ID	Title	TS

Other justification		
TS or CR(s) or external document	Clause	Remarks

If no identified source of stage 2 information, justify:

2.3.4 Test spec

Related Work Item(s)		
Unique ID	Title	TS

2.3.5 Other

Related Work Item(s)			
Unique ID	Title	Nature of relationship	TS / TR

2.4 Work task

Parent Building Block		
Unique ID	Title	TS

3 Justification

Following the request from the European Commission eCall was specified in Rel.8. In this Release there was no full support of IMS emergency calls, so the solution was based on CS emergency calls (TS12), transferring data via an in-band modem to the PSAP.

According to a decision of the European Parliament new cars, which will be type approved after the 31st March 2018, must be equipped with an eCall In-Vehicle-System (IVS).

Currently, IMS emergency calls are fully specified, more and more operators deploy VoLTE, and LTE coverage is rapidly expanding. So in the long term there will probably be a desire to switch off CS core and also 2G and 3G access networks. On the other hand there will be the regulatory requirement to support TS12 based IVSs for quite a while.

End-to-end eCall over IMS emergency calling (i.e., when IVS, MNO, and PSAP all support eCall over IMS emergency calling) allows improvements in functionality and the user experience (e.g., some limitations due to the current technical solution of using an in-band modem to transfer the minimum set of data in a TS12 call will cease to exist). Taking interworking scenarios into account will enable a smooth migration to a parallel operation of TS12 and IMS emergency call based eCall equipment and eventually to end-to-end IMS emergency call based eCall only.

4 Objective

The objective of this work item is to specify the system impacts for an eCall based on IMS emergency calls that will allow for enhanced eCall user experience and functionality, and for the long-term phase out of CS core and access networks. The work will be based on service requirements defined by WI EIEI in SA1 and captured in TS 22.101.

Based on stage-1 requirements at least the following work is identified for SA2 so far:

- TS 23 401: introduce eCall for EPS and define its impact on the procedures.

  - TS 23.167: provide architectural and other stage 2 support.

Support of eCall based on IMS Emergency Services is expected to make use of the requirements captured in TS 22.101.

Support of eCall on IMS Emergency Services using the PS domain is only considered over LTE. eCall in CS mode or using ICS procedures will be used when in GSM, or UMTS RATs, and is not in the scope of this work item.

5 Service Aspects

None

6 MMI-Aspects

None.

7 Charging Aspects

No additional charging requirements.

8 Security Aspects

No additional security requirements.

9 Impacts

Affects:	UICC apps	ME	AN	CN	Others
Yes		X		X	
No					
Don't know	X		X		X

10 Expected Output and Time scale

New specifications	[If Study Item, one TR is anticipated]					
Spec No	Title	1st rsp. WG	2nd rsp. WG(s)	Presented for information at plenary#	Approved at plenary	Comment

Affected existing specifications		[None in the case of Study Items		
Spec No	CR	Subject of the CR	Approved at plenary	Comment
23.167			SA#72	
23.401			SA#72	

11 Work item rapporteur(s)

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12 Work item leadership

SA2

13   Supporting Individual Members

Supporting IM name
Qualcomm Incorporated
Deutsche Telekom
TeliaSonera
Ericsson
Nokia Networks
Telecom Italia
Vodafone
TeleCommunication Systems
Alcatel Lucent