

DIN EN 16062:2015-08 (E)

Intelligent transport systems - ESafety - eCall high level application requirements (HLAP) using GSM/UM TS circuit switched networks

Contents		Page
Foreword		4
Introduction		5
1	Scope	7
2	Normative references	7
3	Terms and definitions	8
4	Symbols and abbreviations	11
5	Conformance	12
6	General overview of the eCall transaction for Pan European eCall	13
7	Requirements	17
7.1	Procedures following power-up of the in-vehicle system	17
7.1.1	General	17
7.1.2	Enabled IVS	17
7.1.3	Enabled PSAP	17
7.1.4	IVS configured only for eCall	18
7.1.5	Self-test	18
7.1.6	Standby mode applicable to IVS configured for eCall only	18
7.2	Activation	19
7.2.1	Activation of pan-European eCall	19
7.2.2	Activation of a test eCall	19
7.3	Call set-up	19
7.3.1	General	19
7.3.2	IVS network access device (NAD) already registered on PLMN	20
7.3.3	eCall in progress	20
7.3.4	Network selection and registration	20
7.3.5	Authentication of the subscriber	20
7.3.6	eCall establishment	21
7.3.7	Cell localisation (by network)	21
7.3.8	Manual termination of eCall by vehicle occupants before trigger confirmation	21
7.4	MSD transfer	21
7.4.1	General	21
7.4.2	Send initiation signal from IVS eCall modem to PSAP	22
7.4.3	eCall modem synchronization	23
7.4.4	Request MSD by PSAP eCall modem to IVS eCall modem	23
7.4.5	Send MSD from vehicle IVS to PSAP eCall modem	23
7.4.6	Link layer error check	23
7.4.7	Link layer ACK from PSAP eCall modem to IVS eCall modem	23
7.5	Application layer acknowledgement (AL- ACK)	24
7.5.1	Following transmission of the MSD to the eCall PSAP application	24
7.5.2	PSAP acknowledges the MSD	24
7.5.3	No receipt of application layer ACK	25
7.5.4	Form of presentation of the AL-ACK	25
7.6	PSAP request "SEND MSD"	26
7.6.1	General	26

7.6.2	Before call clear-down	26
7.6.3	After call clear-down	28
7.7	PSAP application features	28
7.7.1	General requirements	28
7.7.2	MSD display to the PSAP operator	29
7.7.3	PSAP operator user interface	29
7.8	Audio link to vehicle occupants	29
7.9	eCall clear-down	29
7.10	PSAP call back	30
7.11	Rerouting to another PSAP/emergency control centre	30
7.12	Handling non equipped situations / error cases	31
7.12.1	MSD not transmitted correctly	31
7.12.2	Network registration fails	31
7.12.3	Call failure before the MSD is sent and acknowledged	31
7.12.4	Mobile network not supporting eCall flag or not provided with routing tables	31
7.12.5	PSAP modem failure	32
7.12.6	PSAP network/ICT failure	32
7.12.7	PSAP application failure	32
7.12.8	PSAP operator does not respond	33
7.12.9	No response if line engaged	33
7.12.10	MSD not sent	33
7.12.11	MSD not received	33
7.12.12	Audio link not established	34
7.12.13	Audio link established but subsequently fails	34
7.12.14	Re-attempt in case of interrupted call	34
7.12.15	Automatic repeat attempts	34
7.12.16	IVS NAD does not receive call clear-down	34
8	Third party services supported eCall (TPS-eCall)	34
8.1	Overview	34
9	Defences against attack (Security provisions)	35
10	Quality of service requirements	35
11	Test and conformance requirements	35
12	Marking, labelling and packaging	35
13	Declaration of patents and intellectual property	35
Annex A (normative) Table of timings		36
Annex B (informative) Summary abstracts of normative referenced documents		38
B.1	Objective	38
B.2	Summary abstracts	38
Annex C (informative) Test system strategies		50
C.1	General	50
C.2	Vehicle and PSAP equipment life cycle	50
C.3	Laboratory environment	51
C.4	OEM or third party test systems	51
Bibliography		52