

Source 3GPP TS 22.003 V4.2.0 “CS Teleservices supported by a PLMN”:

A.1.2 Emergency calls

Teleservice 12, Emergency calls							
A T T R I B U T E S	1. HLC	1.1 Type or user information			speech		
		1.2 Layer 4 protocol functions			-		
		1.3 Layer 5 protocol functions			-		
		1.4 Layer 6 protocol functions			-		
		1.5 Layer 7 protocol functions			-		
	2. LLC	2.1 Inform transfer	2.1.1 Information transfer capability		speech (digital representation)		
			2.1.2 Information transfer mode		circuit		
			2.1.3 Information transfer rate		not applicable		
			2.1.4 Structure		not applicable		
			2.1.5 Establishment of connection		demand MO MT		
			2.1.6 Communication configuration		point-to-point		
			2.1.7 Symmetry		bidirectional symmetry		
		2.2 Access at UE	2.2.1 Signalling access		manual		
			2.2.2 Information access (TS 22.001)	rate	full rate/half rate		
				interface			
		2.3 Inter- working	2.3.1 Visible network type		PSTN	ISDN	
			2.3.2 National/Internat. interworking		national		
			2.3.3 Interface of TE to terminating Ntwk.		2 wire	4 wire	
		3. Gen	3.1 Supplementary service provided			TS 22.004 (see note 3)	
			3.2 Quality of service				

Comments:

- 1) A standardized access method throughout all PLMNs is mandatory. See TS 22.101[5] for further information on emergency call requirements.
- 2) It shall be an option of the network operator whether to accept emergency calls coming from user equipment which do not transmit an IMSI or a TMSI.
- 3) Emergency calls supersede all constraints imposed by supplementary services or user equipment features used for other Tele or Bearer services. The lock state of the UE is overridden by the SOS-procedure.
- 4) Emergency calls will be routed to the emergency services in accordance with national regulations.
- 5) In order to help identifying callers in cases of misuse databases in the PLMN may be accessed to retrieve the identity of the calling UE.

10 Emergency Calls

10.1 General requirements

It shall be possible to establish an emergency speech call. Emergency calls will be routed to the emergency services in accordance with national regulations for where the subscriber is located. This may be based upon one or more default numbers stored in the ME. It shall be allowed to establish an emergency call without the need to dial a dedicated number to avoid the mis-connection in roaming case, such as menu, by use of a 'red button', or a linkage to a car air bag control. Emergency Calls shall be supported by the UE without a SIM/USIM being present. No other type than Emergency calls shall be accepted without a SIM/USIM.

The Emergency service is required only if the UE supports voice.

Note: It will be left to the national authorities to decide whether the network should accept emergency calls without the SIM/USIM.

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:

- Police
- Ambulance
- Fire Brigade
- Marine Guard
- Mountain Rescue
- Spare, at least [three] different types

When a SIM/USIM is present, subscriber specific emergency call set-up MMI shall be provided. The Home Environment operator shall specify preferred emergency call MMI(s) (e.g. 911 for US citizens or 110, 118 and 119 for Japanese citizens). This shall be stored in the SIM/USIM and the ME shall read this and use any entry of these digits to set up an emergency call. It shall be possible to store more than one instance of this field.

Note: Release '98 and earlier SIM cards have the capability to store additional emergency call set-up MMI. However in many cases this has not been used.

It shall be possible to tie any emergency call number, specified in the preferred emergency call MMI(s) above, to any single emergency call type or to any combination of emergency types. The association between emergency numbers and emergency call type shall be able to be programmed by the Home Environment operator into the SIM/USIM.

Example:

19	Police (Albania)
100	Police and Fire Brigade (Greek cities)
100	Ambulance and Fire Brigade (Belgium)
112	Police and Ambulance (Italy)
112	General emergency call, all categories (Sweden)
115	Fire Brigade (Italy)

114 Ambulance (Austria)

Note: if the UE does not recognise the emergency call MMI(s) (i.e. the dialled number is not stored in SIM/USIM) but the serving network recognises the dialled number as an emergency call number used in the country, a normal call set up takes place over the radio interface and after the serving network has recognised the emergency number the call is routed as an emergency call.

When a SIM/USIM containing stored emergency numbers is present, only those numbers are identified as emergency numbers, i.e. default emergency numbers stored in the ME are ignored.

The following emergency numbers shall be stored in the ME for use when no emergency numbers are stored in the SIM: 000, 08, 112, 110, 911 and 999.

Note: Emergency numbers stored in the ME, for use when no emergency numbers are stored in the SIM, should not overlap with existing service numbers used by any operator.

The user friendly MMI which specifies the type of emergency directly (e.g. menu) should be supported for use in any (i.e. home or visited) PLMN to avoid the mis-connection in roaming case. This shall be allowed to both with and without SIM/USIM being present. The following emergency numbers shall be stored in the ME for use without SIM/USIM: 000, 08, 112, 110, 118, 119, 911 and 999.

10.2 Emergency calls when attached to a CS CN Domain

PLMNs shall support an emergency call teleservice as defined in TS 22.003 [14] (TS12).

10.3 Emergency Calls when Attached to a Data Only Network

If an UE with voice capability attempts to make an emergency call while camping on a PLMN that does not support voice service to the UE, a new PLMN selection shall immediately take place, and the UE shall select the first available PLMN that supports emergency calls to the UE.

10.4 Emergency Calls when Attached to a IM CN subsystem

Emergency calls shall be supported when attached to a IM CN subsystem as specified at chapter 10.1.

If UE is attached simultaneously to both CS domain and IM CN subsystem, the operator shall be able to specify, which domain is used by default for emergency calls.

For further information see [27].

Note 1: It shall be possible to enable compliance with regional regulatory requirements related to emergency calls.

Note 2: Other forms than speech for emergency services are for further study.