Technical Specification Group Services and System Aspects
Meeting #20, Hämeenlinna, Finland, 09-12 June 2003

TSGS#20(03)0253

Source:	**SA1**
Title:	**CRs to 22.101 on Emergency Call requirements (Rel-6)**
Document for:	**Approval**
Agenda Item:	**7.1.3**

CR-Form-v7

CHANGE REQUEST

⌘ **22.101** **CR** **120** ⌘**rev** **-** ⌘ Current version: **6.3.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: UICC apps⌘ [ ] ME [X] Radio Access Network [X] Core Network [X]

Title:	⌘	Clarification of UE Requirements for Emergency Calls
Source:	⌘	Lucent, Nokia
Work item code:	⌘	EMC1
Date:	⌘	28/03/2003
Category:	⌘	**F**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
A *(corresponds to a correction in an earlier release)*
B *(addition of feature),*
C *(functional modification of feature)*
D *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

Use one of the following releases:

2	*(GSM Phase 2)*
R96	*(Release 1996)*
R97	*(Release 1997)*
R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The current specification does not clearly spell out actions to be taken by the UE when an emergency call is attempted. Because of the possibility of different configurations of network capabilities, a clear hierarchy of UE requirements is needed.
Summary of change:	⌘	The requirements for actions for a UE to make an emergency call for various scenarios are clarified.
Consequences if not approved:	⌘	SA2 may make invalid assumptions about required network behaviour

Clauses affected:	⌘	10.1-4

		Y	N			
Other specs affected:	⌘	X		Other core specifications	⌘	TS23.228
			X	Test specifications		
			X	O&M Specifications		

Other comments:	⌘	

How to create CRs using this form:
Comprehensive information and tips about how to create CRs can be found at http://www.3gpp.org/specs/CR.htm.
Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

Modified Section

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.~~ If a UE supports TS11(Telephony)[14] then it shall also support TS12(Emergency Calls)[14]. If a UE supports IMS speech calls, then it shall also support IMS emergency calls.

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/USIM: 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/USIM, 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.

The serving network may download additional emergency numbers to the UE in order to ensure that local emergency numbers are known to the UE. The UE shall regard these emergency numbers as valid in that country (as identified by the MCC) and shall discard them when a new country is entered.

The following requirements sets the priority for network selection when the UE attempts an emergency call:

UE Capability	**UE state**	**UE action**
CS capable only	Terminal CS attached.	Attempt call in CS domain
PS capable only (no IMS)	Terminal PS attached.	No support for Emergency calls
IMS capable only	Terminal IMS attached	Attempt call in IMS
CS and PS capable only	Not attached to CS domain	Attempt to create CS emergency call (this may or may not require change of serving network).
CS and IMS capable	Terminal attached to both CS domain and IMS	Attempt call as directed by network operator
CS and IMS capable	Terminal attached only to CS domain	Attempt call in CS domain
CS and IMS capable	Terminal attached to only IMS.	Attempt call in IMS. In case IMS emergency call fails (e.g. due to lack of PS domain capabilities) the UE shall attempt to create CS emergency call (this may or may not require change of serving network).

Note : Term “IMS capable” in this context refers to IMS speech call capable.

10.2 Emergency calls when ~~attached to~~attempted in a CS CN Domain

PLMNs shall support an emergency call teleservice as defined in 3GPP TS 22.003 [14] (TS12).

10.3 Emergency calls ~~when attached to~~attempted in ~~a data only network~~PS CN Domain

~~If an UE with voice capability attempts to make an emergency call while camping on a PLMN/I-WLAN 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.~~If a UE ~~with~~ attempts to make an emergency call while camping on a PLMN that does not support voice service to the UE, the UE should attempt to find a ~~coverage~~connection that could support emergency calls. Note that this may or may not require change of serving network.

10.4 Emergency calls ~~when attached to~~attempted in an IM CN subsystem

If UE supports voice calls in IMS then it shall also support emergency calls in IMS. Emergency calls shall be supported when attached to an IM CN subsystem as specified in subclause 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 3GPP TS 22.228 [27].

It shall be possible to enable compliance with regional regulatory requirements related to emergency calls

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

10.5 Emergency Calls when Attached via an Interworking WLAN

~~Any attempt to make an emergency call shall be handled as defined for a Data Only network in section 10.3.~~Emergency calls are not supported for I-WLAN. Terminal supporting also CS or IMS shall use them for emergency calls as specified in clause 10.1, 10.2, 10.3 and 10.4.