

(S1-000651, to TSG-RAN) LS on Re-establish Capability for Emergency call

## **Liaison Statement**

**From:** TSG-S1  
**To:** TSG-RAN, TSG-SA2, TSG-CN1  
**Cc:**  
**Subject:** Re-establish Capability for Emergency call  
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**Attachments:** S1-000534, S1-000535

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During the meeting in July 2000 TSG SA WG1 discussed regarding new requirement on re-establish capability for Emergency call.

The requirements are:

- It shall be possible for the emergency centers to re-establish communication with the user within the amount of time (e.g. 40 seconds in Japan) after end of the communication or accidental disconnection.
- The network shall be able to re-establish communication with the user by re-establish request from the emergency center.
- The re-establish request from the emergency center shall be treated as a top priority.
- ME shall support this capability for R00.
- It shall be applied for the case of emergency call without SIM/USIM.
- The user may be restricted to originate/terminate another call within this period.

Please see attached document S1-000534 and S1-000535 for the detail information.

S1 recognized the requirement and would like to add this capability for Release 2000 if it's feasible. The attached CR was considered at S1, but it was postponed as the detailed text has dependencies on the technical solutions. Therefore, S1 would like to ask relevant WGs to study above requirements and attached documents whether it's feasible.

**Source: NTT DoCoMo**

**Title: Re-establish Capability for Emergency call**

**Effected Specifications / Releases: Release '00**

**Document for: Discussion and approval**

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### **1. Introduction**

It is important to have a capability to re-establish emergency call from emergency center after end of the communication (e.g. user hang up before inform enough information to the emergency center due to impatience) or in case of accidental disconnection during emergency call. By supporting this capability, emergency centers can provide more reliable services to the users. This re-establish capability is required in Japan.

### **2. Requirement**

The following requirement shall be fulfilled to support this capability.

- It shall be possible for the emergency centers to re-establish communication with the user within the amount of time after end of the communication or accidental disconnection.
- The network shall be able to re-establish communication with the user by re-establish request from the emergency center.
- The re-establish request from the emergency center shall be treated as a top priority.
- ME shall support this capability for R00.
- It shall be applied for the case of emergency call without SIM/USIM.
- The user may be restricted to originate/terminate another call within this period.

To support this capability, the current mobile network in Japan (PDC) has been adopted the means to hold the RAB the amount of time. By holding RAB, the re-establishing emergency call is very reliable. The network restricts originating call from the user and also returns busy state for the incoming call during this holding time.

### **3. Proposal**

We propose to support this re-establish capability in 3GPP specification and add the requirement for emergency call in section 8 in TS22.101 accordingly.

<h2 style="margin: 0;">CHANGE REQUEST</h2>		<i>Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.</i>
<b>22.101</b>	<b>CR</b>	Current Version: <b>4.0.0</b>
GSM (AA.BB) or 3G (AA.BBB) specification number ↑	↑ CR number as allocated by MCC support team	
For submission to: <input style="width: 100px;" type="text"/>	for approval <input checked="" type="checkbox"/>	strategic <input type="checkbox"/>
<small>list expected approval meeting # here</small>	for information <input type="checkbox"/>	non-strategic <input type="checkbox"/> <small>(for SMG use only)</small>

Form: CR cover sheet, version 2 for 3GPP and SMG      The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:**      (U)SIM       ME       UTRAN / Radio       Core Network   
(at least one should be marked with an X)

**Source:**      NTT DoCoMo      **Date:**      17 July 2000

**Subject:**      Re-establish capability

**Work item:**      Emergency call recalling capability enhancement

<b>Category:</b>	F Correction <input type="checkbox"/> A Corresponds to a correction in an earlier release <input type="checkbox"/> B Addition of feature <input checked="" type="checkbox"/> C Functional modification of feature <input type="checkbox"/> D Editorial modification <input type="checkbox"/>	<b>Release:</b>	Phase 2 <input type="checkbox"/> Release 96 <input type="checkbox"/> Release 97 <input type="checkbox"/> Release 98 <input type="checkbox"/> Release 99 <input type="checkbox"/> Release 00 <input checked="" type="checkbox"/>
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(only one category shall be marked with an X)

**Reason for change:**      It is important to have the capability to re-establish the emergency call from emergency centers after end of the communication or accidental disconnection. By supporting this capability, emergency centers can provide more reliable services to the user. To support this capability is required in Japan.

**Clauses affected:**      8

<b>Other specs affected:</b>	Other 3G core specifications <input type="checkbox"/> Other GSM core specifications <input type="checkbox"/> MS test specifications <input type="checkbox"/> BSS test specifications <input type="checkbox"/> O&M specifications <input type="checkbox"/>	→ List of CRs: → List of CRs: → List of CRs: → List of CRs: → List of CRs:	
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**Other comments:**



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## 8 Emergency Calls

PLMNs shall support an emergency call teleservice as defined in TS 22.003 [14] (TS12), which fulfils the following additional service requirements:

It shall be possible to establish an emergency speech call to the serving network. Emergency calls will be routed to the emergency services in accordance with national regulations. 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 call teleservice is required only if the UE supports telephony.

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 recognize the emergency call MMI(s), a normal call set up takes place over the air and after the serving network has recognized 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.

### 8.1 Emergency Calls when Attached to a Data Only Network

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

## 8.2 Re-establish from Emergency Centre

It shall be possible for the emergency centers to re-establish communication with the user within the amount of time after end of the communication or accidental disconnection. The network shall re-establish communication with the user by re-establish request from the emergency centres. This re-establish request shall be treated as a top priority. To ensure re-establish request, it shall be possible to hold the RAB the amount of time. The user may not be able to originate/terminate another call within this period.

ME shall support this re-establish capability and it will be left to the national authorities to decide whether the network shall support. This capability shall be applied for emergency call without SIM/USIM.

Note: If multicall is available, the CS data call will be possible within its capability. (See TS 22.135 8.4)