
Source: SA1
Title: CRs to 22.101 on Modification of emergency number identification rules (R99, Rel-4, Rel-5, Rel-6)
Document for: Approval
Agenda Item: 7.1.3

Meeting	SA Doc	TS No.	CR No	Rev	Rel	Cat	Subject	Vers. Current	Vers New	SA1 Doc
SP-21	SP-030454	22.101	129		R99	F	Modification of emergency number identification rules in 22.101 R99	3.14.0	3.15.0	S1-031044
SP-21	SP-030454	22.101	131		Rel-5	F	Modification of emergency number identification rules in 22.101 Rel-5	5.10.0	5.11.0	S1-031046
SP-21	SP-030454	22.101	131		Rel-4	A	Modification of emergency number identification rules in 22.101 Rel-4	4.7.0	4.8.0	S1-031045
SP-21	SP-030454	22.101	132		Rel-6	C	Cleanup and modifications on identification of emergency numbers in 22.101 Rel-6	6.4.0	6.5.0	S1-031049

<small>CR-Form-v7</small>
<h2 style="margin: 0;">CHANGE REQUEST</h2>
⌘ 22.101 CR 129 ⌘ rev - ⌘ Current version: 3.14.0 ⌘

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 Radio Access Network Core Network

Title:	⌘ Modification of emergency number identification rules in 22.101 R99
Source:	⌘ SA1 (Nokia)
Work item code:	⌘ EMC1
Date:	⌘ 26/08/2003
Category:	⌘ F
	Use <u>one</u> 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 .
Release:	⌘ R99
	Use <u>one</u> 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: ⌘ In R99 the logic of SIM/USIM emergency numbers was changed from having only additional numbers on the list to having a complete list of emergency numbers. This complete list overrides emergency numbers stored in the ME. There is however a problem in implementing these requirements since the ME is not able to determine the release of the SIM/USIM and thereby whether the intention of the operator was to include complete list of emergency numbers or only a list of additional emergency numbers.

A (R99 or later) ME may thus treat a (pre-R99) SIM as if it would contain a complete list of emergency numbers although it contains only some additional emergency numbers. In this case the ME may set up a normal call instead of an emergency call when some common emergency numbers are dialled. In many cases the network is able to route the call anyway to the emergency centre (but may be unable to provide location information, that may be required by the regulator). It is also possible that the network does not identify the dialled number as an emergency number (that might be used e.g. as a regular service number in the country where the user is roaming).

The proposed solution is to not consider the SIM/USIM emergency number list as "complete list of emergency numbers" but to allow also 112 and 911 to be interpreted as emergency numbers in R99. Because of legacy terminals on the field, also the old interpretation ("complete list of emergency numbers") is allowed.

Summary of change: ⌘	Section 8 is modified so that 112 and 911 are optionally identified as emergency numbers in addition to the numbers on the SIM/USIM list and a note was added to clarify the usage of emergency numbers stored in the ME.
Consequences if not approved: ⌘	The use of R99 and later terminals together with SIMs/USIMs that do not contain 112 and/or 911 will result in failure to identify emergency numbers correctly. For example 112 will not be identified as a valid emergency number in R99 terminals if the user's SIM contains only the additional emergency number 000.

Clauses affected: ⌘	8												
Other specs Affected:	<table border="1"> <tr> <td>Y</td> <td>N</td> <td></td> </tr> <tr> <td></td> <td>X</td> <td>Other core specifications</td> </tr> <tr> <td></td> <td>X</td> <td>Test specifications</td> </tr> <tr> <td></td> <td>X</td> <td>O&M Specifications</td> </tr> </table>	Y	N			X	Other core specifications		X	Test specifications		X	O&M Specifications
Y	N												
	X	Other core specifications											
	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.

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 may also be possible to establish an emergency call without the need to dial a dedicated number, such as by use of a 'red button', or a linkage to a car air bag control. Emergency Calls shall be available without a SIM/USIM being present. No other type of 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.

When a SIM/USIM is present, subscriber specific emergency call set-up MMI shall be provided. The operator shall specify preferred emergency call MMI(s) (e.g. 911 for US citizens or 110, 118 and 119 for Japanese citizens) for use in any (i.e. home or visited) PLMN. 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.

Note: The ME contains the following emergency numbers: 000, 08, 112, 110, 118, 119, 911 and 999. The availability of these numbers varies depending on the presence of the SIM/USIM and operator provisioned emergency numbers on the SIM/USIM.

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.~~ As an optional requirement, the ME shall also identify 112 and 911 as emergency numbers irrespective of whether these are stored in the SIM/USIM. Any other emergency numbers stored in the ME shall be 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 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 only to a PS CN Domain

When terminal is attached only to a PS CN domain emergency calls are not supported.

<small>CR-Form-v7</small>
<h2 style="margin: 0;">CHANGE REQUEST</h2>
⌘ 22.101 CR 130 ⌘ rev - ⌘ Current version: 4.7.0 ⌘

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 Radio Access Network Core Network

Title:	⌘ Modification of emergency number identification rules in 22.101 Rel-4
Source:	⌘ SA1 (Nokia)
Work item code:	⌘ EMC1
Date:	⌘ 26/08/2003
Category:	⌘ A
	Use <u>one</u> 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 .
Release:	⌘ Rel-4
	Use <u>one</u> 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: ⌘ In R99 the logic of SIM/USIM emergency numbers was changed from having only additional numbers on the list to having a complete list of emergency numbers. This complete list overrides emergency numbers stored in the ME. There is however a problem in implementing these requirements since the ME is not able to determine the release of the SIM/USIM and thereby whether the intention of the operator was to include complete list of emergency numbers or only a list of additional emergency numbers.

A (R99 or later) ME may thus treat a (pre-R99) SIM as if it would contain a complete list of emergency numbers although it contains only some additional emergency numbers. In this case the ME may set up a normal call instead of an emergency call when some common emergency numbers are dialled. In many cases the network is able to route the call anyway to the emergency centre (but may be unable to provide location information, that may be required by the regulator). It is also possible that the network does not identify the dialled number as an emergency number (that might be used e.g. as a regular service number in the country where the user is roaming).

The proposed solution is to not consider the SIM/USIM emergency number list as "complete list of emergency numbers" but to allow also 112 and 911 to be interpreted as emergency numbers in Rel-4. Because of legacy terminals on the field, also the old interpretation ("complete list of emergency numbers") is allowed.

Summary of change: ⌘	Section 9 is modified so that 112 and 911 are optionally identified as emergency numbers in addition to the numbers on the SIM/USIM list and a note was added to clarify the usage of emergency numbers stored in the ME.
Consequences if not approved: ⌘	The use of Rel-4 and later terminals together with SIMs/USIMs that do not contain 112 and/or 911 will result in failure to identify emergency numbers correctly. For example 112 will not be identified as a valid emergency number in Rel-4 terminals if the user's SIM contains only the additional emergency number 000.

Clauses affected: ⌘	9								
Other specs Affected:	<table border="1"> <thead> <tr> <th>Y</th> <th>N</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>	Y	N	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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Test specifications									
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Other comments: ⌘									

How to create CRs using this form:

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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.
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- 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.

9 Emergency Calls

9.1 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 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:

Police (Albania)

Police and Fire Brigade (Greek cities)

Ambulance and Fire Brigade (Belgium)

Police and Ambulance (Italy)

General emergency call, all categories (Sweden)

Fire Brigade (Italy)

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.

Note: The ME contains the following emergency numbers: 000, 08, 112, 110, 118, 119, 911 and 999. The availability of these numbers varies depending on the presence of the SIM/USIM and operator provisioned emergency numbers on the SIM/USIM.

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.~~ As an optional requirement, the ME shall also identify 112 and 911 as emergency numbers irrespective of whether these are stored in the SIM/USIM. Any other emergency numbers stored in the ME shall be 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.

9.2 Emergency calls when attached to a CS CN Domain

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

9.3 Emergency Calls when Attached only to a PS CN Domain

When terminal is attached only to a PS CN domain emergency calls are not supported.

<small>CR-Form-v7</small>
<h2 style="margin: 0;">CHANGE REQUEST</h2>
⌘ 22.101 CR 131 ⌘ rev - ⌘ Current version: 5.10.0 ⌘

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 Radio Access Network Core Network

Title:	⌘ Modification of emergency number identification rules in 22.101 Rel-5
Source:	⌘ SA1 (Nokia)
Work item code:	⌘ EMC1
Date:	⌘ 26/08/2003
Category:	⌘ F
	Use <u>one</u> 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 .
Release:	⌘ Rel-5
	Use <u>one</u> 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:	⌘ In R99 the logic of SIM/USIM emergency numbers was changed from having only additional numbers on the list to having a complete list of emergency numbers. This complete list overrides emergency numbers stored in the ME. There is however a problem in implementing these requirements since the ME is not able to determine the release of the SIM/USIM and thereby whether the intention of the operator was to include complete list of emergency numbers or only a list of additional emergency numbers. A (R99 or later) ME may thus treat a (pre-R99) SIM as if it would contain a complete list of emergency numbers although it contains only some additional emergency numbers. In this case the ME may set up a normal call instead of an emergency call when some common emergency numbers are dialled. In many cases the network is able to route the call anyway to the emergency centre (but may be unable to provide location information, that may be required by the regulator). It is also possible that the network does not identify the dialled number as an emergency number (that might be used e.g. as a regular service number in the country where the user is roaming). The proposed solution is to not consider the SIM/USIM emergency number list as "complete list of emergency numbers" but to allow also 112 and 911 to be interpreted as emergency numbers in Rel-5. In addition, the use of the additional emergency numbers downloaded from the
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		serving network needed clarification.
Summary of change:	⌘	Section 10.1 is modified so that also 112 and 911 are identified as emergency numbers in addition to the numbers on the SIM/USIM list and a note was added to clarify the usage of emergency numbers stored in the ME. Also clarified usage of additional emergency numbers downloaded from the serving network and restructured the sub-clause accordingly.
Consequences if not approved:	⌘	The use of Rel-5 and later terminals together with SIMs/USIMs that do not contain 112 and/or 911 will result in failure to identify emergency numbers correctly. For example 112 will not be identified as a valid emergency number in Rel-5 terminals if the user's SIM contains only the additional emergency number 000. Also, usage of additional downloaded emergency numbers will be unclear.

Clauses affected:	⌘	10.1								
Other specs Affected:	⌘	<table border="1"> <thead> <tr> <th>Y</th> <th>N</th> </tr> </thead> <tbody> <tr> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </tbody> </table>	Y	N	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
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Other comments:	⌘									

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- 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.

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.

Note: The ME contains the following emergency numbers: 000, 08, 112, 110, 118, 119, 911 and 999. The availability of these numbers varies depending on the presence of the SIM/USIM and operator provisioned emergency numbers on the SIM/USIM.

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 only (as identified by the MCC) and shall discard them when a new country is entered.

When a SIM/USIM containing stored emergency numbers is present, only ~~those 112, 911, the SIM/USIM numbers and emergency numbers downloaded from the serving network (if any)~~ are identified as emergency numbers, ~~i.e. default emergency numbers stored in the ME are ignored.~~

When no numbers are stored in the SIM/USIM, only 000, 08, 112, 110, 911, 999 and emergency numbers downloaded from the serving network (if any) are identified as emergency numbers. ~~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.

When there is no SIM/USIM present only 000, 08, 112, 110, 118, 119, 911 and 999 are identified as emergency numbers. ~~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.~~

10.2 Emergency calls when attached to 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 only to a PS CN Domain

When terminal is attached only to a PS CN domain emergency calls are not supported.

10.4 Emergency calls when attached to an IM CN subsystem

Emergency calls are not supported via an IM CN subsystem.

If the UE does recognise the emergency call MMI(s) (i.e. the dialled number is stored in USIM/ME), then the UE shall use the CS CN domain to attempt to establish the emergency call.

If the UE does not recognise the emergency call MMI(s) (i.e. the dialled number is not stored in USIM/ME) but the serving network recognises the dialled number as an emergency call number used in the country then the IM CN subsystem shall inform the UE to use a CS CN domain for emergency services.

CR-Form-v7
CHANGE REQUEST
⌘ 22.101 CR 132 ⌘ rev - ⌘ Current version: 6.4.0 ⌘

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 Radio Access Network Core Network

Title:	⌘ Cleanup and modifications on identification of emergency numbers in 22.101 Rel-6
Source:	⌘ SA1 (Nokia)
Work item code:	⌘ EMC1
Date:	⌘ 26/08/2003
Category:	⌘ C
	Use <u>one</u> 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 .
Release:	⌘ Rel-6
	Use <u>one</u> 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: ⌘ In R99 the logic of SIM/USIM emergency numbers was changed from having only additional numbers on the list to having a complete list of emergency numbers. This complete list overrides emergency numbers stored in the ME. There is however a problem in implementing these requirements since the ME is not able to determine the release of the SIM/USIM and thereby whether the intention of the operator was to include complete list of emergency numbers or only a list of additional emergency numbers.

A (R99 or later) ME may thus treat a (pre-R99) SIM as if it would contain a complete list of emergency numbers although it contains only some additional emergency numbers. In this case the ME may set up a normal call instead of an emergency call when some common emergency numbers are dialled. In many cases the network is able to route the call anyway to the emergency centre (but may be unable to provide location information, that may be required by the regulator). It is also possible that the network does not identify the dialled number as an emergency number (that might be used e.g. as a regular service number in the country where the user is roaming).

The proposed solution is to not consider the SIM/USIM emergency number list as "complete list of emergency numbers" but to allow also 112 and 911 to be interpreted as emergency numbers in Rel-6.

In addition, the use of the additional emergency numbers downloaded from the

		serving network needed clarification.
Summary of change: ⌘		Section 10.1 is modified so that also 112 and 911 are identified as emergency numbers in addition to the numbers on the SIM/USIM list. Also clarified usage of additional emergency numbers downloaded from the serving network and restructured the sub-clause accordingly.
		Section 10.1 is restructured for clarity purposes.
Consequences if not approved: ⌘		

Clauses affected: ⌘		10								
Other specs Affected: ⌘	<table border="1"> <tr> <td>Y</td> <td>N</td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> <tr> <td></td> <td>X</td> </tr> </table>	Y	N		X		X		X	Other core specifications ⌘ Test specifications ⌘ O&M Specifications ⌘
Y	N									
	X									
	X									
	X									
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.

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.

The user friendly MMI that 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 both with and without SIM/USIM being present.

~~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 only (as identified by the MCC) and shall discard them when a new country is entered.

10.1.1 Identification of emergency numbers

The ME shall identify a number dialled by the end user as a valid emergency number if it occurs under one or more of the following conditions.

- a) 112 and 911 shall always be available. These numbers shall be stored on the ME.
- b) Any emergency number stored on a SIM/USIM when the SIM/USIM is present.
- c) 000, 08, 110, 999 when a SIM/USIM is present but no emergency numbers are stored on the SIM/USIM. These numbers shall be stored on the ME.

Note: These emergency numbers should not overlap with existing service numbers used by any operator.

- d) 000, 08, 110, 999, 118 and 119 when a SIM/USIM is not present. These numbers shall be stored on the ME.
- e) Additional emergency numbers that may have been downloaded by the serving network when the SIM/USIM is present.

10.2 Emergency calls when attached to 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 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 an IM CN subsystem

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.