3GPP TSG CN Plenary Meeting #18 **NP-020569**
4th - 6th December 2002. New Orleans, USA.

Source: **TSG CN WG 1**

Title: **CR to Rel-5 on Work Item TEI5 towards 24.008,- CR716r2**

Agenda item: **8.8**

Document for: **APPROVAL**

Introduction:

This document contains **1** CR, **Rel-5** Work Item **"TEI5"**, that have been agreed by **TSG CN WG1**, and are forwarded to TSG CN Plenary meeting #18 for approval.

Spec	CR #	Rev	CAT	Rel	Tdoc Title	Meeting	TDoc #	C_Version
24.008	716	2	F	Rel-5	Downloading of local emergency numbers to the mobile station	N1-27	N1-022492	5.5.0

3GPP TSG-CN1 Meeting #27 ***Tdoc N1-022492***
Bangkok, Thailand, 11 – 15 November 2002 Revision of N1-022430 & N1-022303

CR-Form-v7

CHANGE REQUEST

⌘ **24.008** **CR** **716** ⌘ **rev** **2** ⌘ Current version: **5.5.0** ⌘

*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 [ ] Core Network [X]

Title:	⌘	Downloading of local emergency numbers to the mobile station
Source:	⌘	Vodafone
Work item code:	⌘	TEI-5
Date:	⌘	31/10/2002
Category:	⌘	**F**
Release:	⌘	Rel-5

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:	⌘	Currently, the UE is expected to check dialled digits to see if they are an emergency number. The UE checks the SIM and its own memory to see if the dialled digits match those of any stored emergency numbers. If there is a match, the UE shall proceed with the call establishment differently. If the UE was able to detect, for example, that in the visited country 192 is a local emergency number, then a UMTS/IMS terminal would avoid using the IMS for that call. Additionally, when we come to design emergency call mechanisms in IMS in Release 6, it is foreseen that the design may be easier if the UE can be trusted to recognise emergency numbers.
Summary of change:	⌘	Prepare for emergency service handling for Rel-5 IMS. The network may use the ATTACH ACCEPT and ROUTING AREA UPDATE ACCEPT messages to download emergency numbers valid for PLMNs in the same country as the PLMN where the UE currently is roaming.
Consequences if not approved:	⌘	Rel-5 IMS emergency redirection to CS side will not work properly. Incorrect handling of emergency calls, resulting in improper routing of the call.

Clauses affected:	⌘	4.7.3.1.3, 4.7.5.1.3, 9.4.2, 9.4.2.10, 9.4.15, 9.4.15.12, 10.5.3.13

Other specs affected:	⌘	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.

********** 1st proposed change **********

4.7.3.1.3 GPRS attach accepted by the network

If the GPRS attach request is accepted by the network, an ATTACH ACCEPT message is sent to the MS.

The P-TMSI reallocation may be part of the GPRS attach procedure. When the ATTACH REQUEST includes the IMSI, the SGSN shall allocate the P-TMSI. The P-TMSI that shall be allocated is then included in the ATTACH ACCEPT message together with the routing area identifier. The network shall, in this case, change to state GMM-COMMON-PROCEDURE-INITIATED and shall start timer T3350 as described in subclause 4.7.6. Furthermore, the network may assign a P-TMSI signature for the GMM context which is then also included in the ATTACH ACCEPT message. If the LAI or PLMN identity that has been transmitted in the ATTACH ACCEPT message is a member of any of the "forbidden" lists, any such entry shall be deleted. Additionally, the network shall include the radio priority level to be used by the MS for mobile originated SMS transfer in the ATTACH ACCEPT message.

In GSM, the Cell Notification information element shall be included in the ATTACH ACCEPT message by the network which indicates that the Cell Notification is supported by the network.

In UMTS, the network should prolong the PS signalling connection if the mobile station has indicated a follow-on request pending in ATTACH REQUEST. The network may also prolong the PS signalling connection without any indication from the mobile terminal.

The MS, receiving an ATTACH ACCEPT message, stores the received routing area identification and, if supported by the SIM, the currently selected access technology, stops timer T3310, reset the GPRS attach attempt counter, reset the routing area updating attempt counter, enters state GMM-REGISTERED and sets the GPRS update status to GU1 UPDATED.

If the message contains a P-TMSI, the MS shall use this P-TMSI as the new temporary identity for GPRS services. In this case, an ATTACH COMPLETE message is returned to the network. The MS shall delete its old P-TMSI and shall store the new one. If no P-TMSI has been included by the network in the ATTACH ACCEPT message, the old P-TMSI, if any available, shall be kept.

If the message contains a P-TMSI signature, the MS shall use this P-TMSI signature as the new temporary signature for the GMM context. The MS shall delete its old P-TMSI signature, if any is available, and shall store the new one. If the message contains no P-TMSI signature, the old P-TMSI signature, if available, shall be deleted.

The network may also send a list of "equivalent PLMNs" in the ATTACH ACCEPT message. Each entry of the list contains a PLMN code (MCC+MNC). The mobile station shall store the list, as provided by the network, except that any PLMN code that is already in the "forbidden PLMN" list shall be removed from the "equivalent PLMNs" list before it is stored by the mobile station. In addition the mobile station shall add to the stored list the PLMN code of the network that sent the list. All PLMNs in the stored list shall be regarded as equivalent to each other for PLMN selection, cell selection/re-selection and handover. The stored list in the mobile station shall be replaced on each occurrence of the ATTACH ACCEPT message. If no list is contained in the message, then the stored list in the mobile station shall be deleted. The list shall be stored in the mobile station while switched off so that it can be used for PLMN selection after switch on.

After that in UMTS, if the mobile station has indicated follow-on request pending and has a CM application request pending, it shall send an appropriate message (for example ACTIVATE PDP CONTEXT REQUEST) to the network.

In GSM, if the ATTACH ACCEPT message contains the Cell Notification information element, then the MS shall start to use the LLC NULL frame to perform cell updates. The network receiving an ATTACH COMPLETE message stops timer T3350, changes to GMM-REGISTERED state and considers the P-TMSI sent in the ATTACH ACCEPT message as valid.

The network may also send a list of local emergency numbers in the ATTACH ACCEPT, by including the Emergency Number List IE. The mobile station shall store the list, as provided by the network, except that any emergency number that is already stored in the SIM shall be removed from the list before it is stored by the mobile station. If there are no emergency numbers stored on the SIM, then before storing the received list the mobile station shall remove from it any

emergency number stored permanently in the ME for use in this case (see 3GPP TS 22.101 [8]). The list stored in the mobile station shall be replaced on each receipt of a new Emergency Number List IE.

The emergeny number(s) received in the Emergency Number List IE are valid only in networks with the same MCC as in the cell on which this IE is received. If no list is contained in the ATTACH ACCEPT message, then the stored list in the mobile station shall be kept, except if the mobile station has successfully registered to a PLMN with an MCC different from that of the last registered PLMN.

The mobile station shall use the stored list of emergency numbers received from the network in addition to the emergency numbers stored on the SIM or ME to detect that the number dialled is an emergency number.

NOTE: The mobile station may use the emergency numbers list to assist the end user in determining whether the dialled number is intended for an emergency service or for another destination, e.g. a local directory service. The possible interactions with the end user are implementation specific.

The list of emergency numbers shall be deleted at switch off and removal of the SIM. The mobile station shall be able to store up to ten local emergency numbers received from the network.

********** 2nd proposed change **********

4.7.5.1.3 Normal and periodic routing area updating procedure accepted by the network

If the routing area updating request has been accepted by the network, a ROUTING AREA UPDATE ACCEPT message shall be sent to the MS. The network may assign a new P-TMSI and/or a new P-TMSI signature for the MS. If a new P-TMSI and/or P-TMSI signature have been assigned to the MS, it/they shall be included in the ROUTING AREA UPDATE ACCEPT message together with the routing area identification.

In GSM the Cell Notification information element shall be included in the ROUTING AREA UPDATE ACCEPT message in order to indicate the ability of the network to support the Cell Notification.

The network shall change to state GMM-COMMON-PROCEDURE-INITIATED and shall start the supervision timer T3350 as described in subclause 4.7.6.

If the LAI or PLMN identity contained in the ROUTING AREA UPDATE ACCEPT message is a member of any of the "forbidden" lists then any such entry shall be deleted.

In UMTS, the network should prolong the PS signalling connection if the mobile station has indicated a follow-on request pending in ROUTING AREA UPDATE REQUEST. The network may also prolong the PS signalling connection without any indication from the mobile terminal.

If the PDP context status information element is included in ROUTING AREA UPDATE REQUEST message, then the network shall deactivate all those PDP contexts locally (without peer to peer signalling between the MS and the network), which are not in SM state PDP-INACTIVE on network side but are indicated by the MS as being in state PDP-INACTIVE.

Upon receipt of a ROUTING AREA UPDATE ACCEPT message, the MS stores the received routing area identification and, if supported by the SIM, the currently selected access technology, stops timer T3330, shall reset the routing area updating attempt counter and sets the GPRS update status to GU1 UPDATED. If the message contains a P-TMSI, the MS shall use this P-TMSI as new temporary identity for GPRS services and shall store the new P-TMSI. If no P-TMSI was included by the network in the ROUTING AREA UPDATING ACCEPT message, the old P-TMSI shall be kept. Furthermore, the MS shall store the P-TMSI signature if received in the ROUTING AREA UPDATING ACCEPT message. If no P-TMSI signature was included in the message, the old P-TMSI signature, if available, shall be deleted.

If the PDP context status information element is included in ROUTING AREA UPDATE ACCEPT message, then the MS shall deactivate all those PDP contexts locally (without peer to peer signalling between the MS and network), which are not in SM state PDP-INACTIVE in the MS but are indicated by the network as being in state PDP-INACTIVE.

In GSM, if the ROUTING AREA UPDATE ACCEPT message contains the Cell Notification information element, then the MS shall start to use the LLC NULL frame to perform cell updates.

The network may also send a list of "equivalent PLMNs" in the ROUTING AREA UPDATE ACCEPT message. Each entry of the list contains a PLMN code (MCC+MNC). The mobile station shall store the list, as provided by the network, except that any PLMN code that is already in the "forbidden PLMN" list shall be removed from the "equivalent PLMNs" list before it is stored by the mobile station. In addition the mobile station shall add to the stored list the PLMN code of the network that sent the list. All PLMNs in the stored list shall be regarded as equivalent to each other for PLMN selection, cell selection/re-selection and handover. The stored list in the mobile station shall be replaced on each occurrence of the ROUTING AREA UPDATE ACCEPT message. If no list is contained in the message, then the stored list in the mobile station shall be deleted. The list shall be stored in the mobile station while switched off so that it can be used for PLMN selection after switch on.

A ROUTING AREA UPDATE COMPLETE message shall be returned to the network if the ROUTING AREA UPDATE ACCEPT message contained:

- a P-TMSI; and/or
- Receive N-PDU Numbers (see 3GPP TS 44.065 [78] and 3GPP TS 25.322).

In this case the Receive N-PDU Numbers values valid in the MS, shall be included in the ROUTING AREA UPDATE COMPLETE message.

NOTE: In UMTS, after a routing area updating procedure, the mobile station can initiate Service Request procedure to request the resource reservation for the active PDP contexts if the resources have been released by the network or send upper layer message (e.g. ACTIVATE PDP CONTEXT REQUEST) to the network via the existing PS signaling connection.

After that in UMTS, if the mobile station has indicated follow-on request pending and has a CM application request pending, it shall send an appropriate message (for example ACTIVATE PDP CONTEXT REQUEST) to the network.

The network may also send a list of local emergency numbers in the ROUTING AREA UPDATE ACCEPT, by including the Emergency Number List IE. The mobile station shall store the list, as provided by the network, except that any emergency number that is already stored in the SIM shall be removed from the list before it is stored by the mobile station. If there are no emergency numbers stored on the SIM, then before storing the received list the mobile station shall remove from it any emergency number stored permanently in the ME for use in this case (see 3GPP TS 22.101 [8]). The list stored in the mobile station shall be replaced on each receipt of a new Emergency Number List IE.

The emergeny number(s) received in the Emergency Number List IE are valid only in networks with the same MCC as in the cell on which this IE is received. If no list is contained in the ROUTING AREA UPDATE ACCEPT message, then the stored list in the mobile station shall be kept, except if the mobile station has successfully registered to a PLMN with an MCC different from that of the last registered PLMN.

The mobile station shall use the stored list of emergency numbers received from the network in addition to the emergency numbers stored on the SIM or ME to detect that the number dialled is an emergency number.

NOTE: The mobile station may use the emergency numbers list to assist the end user in determining whether the dialled number is intended for an emergency service or for another destination, e.g. a local directory service. The possible interactions with the end user are implementation specific.

The list of emergency numbers shall be deleted at switch off and removal of the SIM. The mobile station shall be able to store up to ten local emergency numbers received from the network.

********** 3rd proposed change **********

9.4.2 Attach accept

This message is sent by the network to the MS to indicate that the corresponding attach request has been accepted. See table 9.4.2/3GPP TS 24.008.

Message type: ATTACH ACCEPT

Significance: dual

Direction: network to MS

Table 9.4.2/3GPP TS 24.008: ATTACH ACCEPT message content

IEI	Information Element	Type/Reference	Presence	Format	Length
	Protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Skip indicator	Skip indicator 10.3.1	M	V	1/2
	Attach accept message identity	Message type 10.4	M	V	1
	Attach result	Attach result 10.5.5.1	M	V	1/2
	Force to standby	Force to standby 10.5.5.7	M	V	1/2
	Periodic RA update timer	GPRS Timer 10.5.7.3	M	V	1
	Radio priority for SMS	Radio priority 10.5.7.2	M	V	1/2
	Radio priority for TOM8	Radio priority 2 10.5.7.5	M	V	1/2
	Routing area identification	Routing area identification 10.5.5.15	M	V	6
19	P-TMSI signature	P-TMSI signature 10.5.5.8	O	TV	4
17	Negotiated READY timer value	GPRS Timer 10.5.7.3	O	TV	2
18	Allocated P-TMSI	Mobile identity 10.5.1.4	O	TLV	7
23	MS identity	Mobile identity 10.5.1.4	O	TLV	7-10
25	GMM cause	GMM cause 10.5.5.14	O	TV	2
2A	T3302 value	GPRS Timer 2 10.5.7.4	O	TLV	3
8C	Cell Notification	Cell Notification 10.5.5.21	O	T	1
4A	Equivalent PLMNs	PLMN List 10.5.1.13	O	TLV	5-17
B-	Network feature support	Network feature support 10.5.5.23	O	TV	1
34	Emergency Number List	Emergency Number List 10.5.3.13	O	TLV	5-50

9.4.2.1 P-TMSI signature

This IE may be included to assign an identity to the MS's GMM context.

9.4.2.2 Negotiated READY timer

This IE may be included to indicate a value for the READY timer.

9.4.2.3 Allocated P-TMSI

This IE may be included to assign a P-TMSI to an MS in case of a GPRS or combined GPRS attach.

9.4.2.4 MS identity

This IE may be included to assign or unassign a TMSI to an MS in case of a combined GPRS attach.

9.4.2.5 GMM cause

This IE shall be included when IMSI attach for non-GPRS services was not successful during a combined GPRS attach procedure.

9.4.2.6 T3302 value

This IE may be included to indicate a value for the T3302 timer.

9.4.2.7 Cell Notification (GSM only)

In GSM, this IE shall be included by the SGSN in order to indicate the ability to support the Cell Notification.

9.4.2.8 Equivalent PLMNs

The *Equivalent PLMNs* information element is included if the network wants to inform the mobile station of equivalent PLMNs.

9.4.2.9 Network feature support

This IE may be included to inform the MS of the support of certain features. If this IE is not included then the respective features are not supported.

9.4.2.10 Emergency Number List

This IE may be sent by the network. If this IE is sent, the contents of this IE indicates a list of emergency numbers valid within the same MCC as in the cell on which this IE is received.

********** 4th proposed change **********

9.4.15 Routing area update accept

This message is sent by the network to the MS to provide the MS with GPRS mobility management related data in response to a *routing area update request* message. See table 9.4.15/3GPP TS 24.008.

Message type: ROUTING AREA UPDATE ACCEPT

Significance: dual

Direction: network to MS

Table 9.4.15/3GPP TS 24.008: ROUTING AREA UPDATE ACCEPT message content

IEI	Information Element	Type/Reference	Presence	Format	Length
	Protocol discriminator	Protocol discriminator 10.2	M	V	1/2
	Skip indicator	Skip indicator 10.3.1	M	V	1/2
	Routing area update accept message identity	Message type 10.4	M	V	1
	Force to standby	Force to standby 10.5.5.7	M	V	1/2
	Update result	Update result 10.5.5.17	M	V	1/2
	Periodic RA update timer	GPRS Timer 10.5.7.3	M	V	1
	Routing area identification	Routing area identification 10.5.5.15	M	V	6
19	P-TMSI signature	P-TMSI signature 10.5.5.8	O	TV	4
18	Allocated P-TMSI	Mobile identity 10.5.1.4	O	TLV	7
23	MS identity	Mobile identity 10.5.1.4	O	TLV	7-10
26	List of Receive N-PDU Numbers	Receive N-PDU Number list 10.5.5.11	O	TLV	4 - 19
17	Negotiated READY timer value	GPRS Timer 10.5.7.3	O	TV	2
25	GMM cause	GMM cause 10.5.5.14	O	TV	2
2A	T3302 value	GPRS Timer 2 10.5.7.4	O	TLV	3
8C	Cell Notification	Cell Notification 10.5.5.21	O	T	1
4A	Equivalent PLMNs	PLMN List 10.5.1.13	O	TLV	5-17
32	PDP context status	PDP context status 10.5.7.1	O	TLV	4
B-	Network feature support	Network feature support 10.5.5.23	O	TV	1
34	Emergency Number List	Emergency Number List 10.5.3.13	O	TLV	5-50

9.4.15.1 P-TMSI signature

This IE may be included to assign an identity to the MS's GMM context.

9.4.15.2 Allocated P-TMSI

This IE may be included to assign a P-TMSI to an MS in case of a GPRS or combined routing area updating procedure.

9.4.15.3 MS identity

This IE may be included to assign or unassign a TMSI to a MS in case of a combined routing area updating procedure.

9.4.15.4 List of Receive N-PDU Numbers

This IE shall be included in case of an inter SGSN routing area updating, if there are PDP contexts that have been activated in acknowledged transfer mode.

9.4.15.5 Negotiated READY timer value

This IE may be included to indicate a value for the READY timer.

9.4.15.6 GMM cause

This IE shall be included if IMSI attach was not successful for non-GPRS services during a combined GPRS routing area updating procedure.

9.4.15.7 T3302 value

This IE may be included to indicate a value for the T3302 timer.

9.4.15.8 Cell Notification (GSM only)

In GSM, this IE shall be included if by the SGSN in order to indicate the ability to support the Cell Notification.

9.4.15.9 Equivalent PLMNs

The *Equivalent PLMNs* information element is included if the network wants to inform the mobile station of equivalent PLMNs.

9.4.15.10 PDP context status

This IE shall be included by the NW.

9.4.15.11 Network feature support

This IE may be included to inform the MS of the support of certain features. If this IE is not included then the respective features are not supported.

9.4.15.12 Emergency Number List

This IE may be sent by the network. If this IE is sent, the contents of this IE indicates a list of emergency numbers valid within the same MCC as in the cell on which this IE is received.

********** 5th proposed change **********

10.5.3.13 Emergency Number List

The purpose of this information element is to encode emergency number(s) for use within the country (as indicated by MCC) where the IE is received.

The *Emergency Number List* information element is coded as shown in figure 10.5.97b/3GPP TS 24.008.

The *Emergency Number List IE* is a type 4 information element with a minimum length of 5 octets and a maximum length of 50 octets.

8	7	6	5	4	3	2	1	
Emergency Number List IEI								octet 1
Length of Emergency Number List IE contents								octet 2
Length of 1st Emergency Number								octet 3
spare			Emergency Service Category Value (see Table 10.5.135d/3GPP TS 24.008)					octet 4
0	0	0						
Number digit 2				Number digit 1				octet 5 note 1)
Number digit 4				Number digit 3				octet 6*
:				:				:
note 2)								octet j-1*
Length of 2nd Emergency Number								octet j*
spare			Emergency Service Category Value (see Table 10.5.135d/3GPP TS 24.008)					Octet j+1*
0	0	0						
Number digit 2				Number digit 1				octet j+2* note 1)
Number digit 4				Number digit 3				octet j+3*
:				:				:
note 2)				:				octet n*

Figure 10.5.97b/3GPP TS 24.008 *Emergency Number List* information element

NOTE 1: The number digit(s) in octet 5 precedes the digit(s) in octet 6 etc. The number digit, which would be entered first, is located in octet 5, bits 1 to 4. The contents of the number digits are coded as shown in table 10.5.118/3GPP TS 24.008.

NOTE 2: If the emergeny number contains an odd number of digits, bits 5 to 8 of the last octet of the respective emergency number shall be filled with an end mark coded as "1111".

********** Added for information **********

10.5.4.7 Called party BCD number

The purpose of the called party BCD number information element is to identify the called party.

The called party BCD number information element is coded as shown in figure 10.5.91/3GPP TS 24.008 and table 10.5.118/3GPP TS 24.008.

The called party BCD number is a type 4 information element with a minimum length of 3 octets and a maximum length of 43 octets. For PCS 1900 the maximum length is 19 octets.

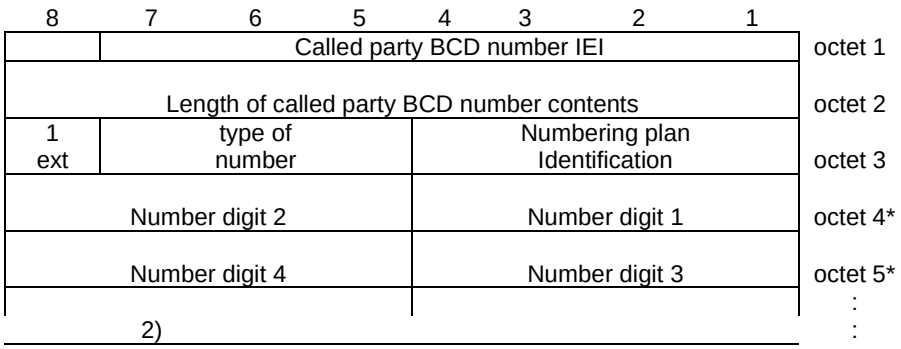

Figure 10.5.91/3GPP TS 24.008 Called party BCD number information element

NOTE 1: The number digit(s) in octet 4 precedes the digit(s) in octet 5 etc. The number digit which would be entered first is located in octet 4, bits 1 to 4.

NOTE 2: If the called party BCD number contains an odd number of digits, bits 5 to 8 of the last octet shall be filled with an end mark coded as "1111".

Since the information element must contain the complete called party BCD number there is no need for an additional complete indication.

Table 10.5.118/3GPP TS 24.008: Called party BCD number

Type of number (octet 3) (Note 1)			
Bits			
7	**6**	**5**	
0	0	0	unknown (Note 2)
0	0	1	international number (Note 3, Note 5)
0	1	0	national number (Note 3)
0	1	1	network specific number (Note 4)
1	0	0	dedicated access, short code
1	0	1	Reserved
1	1	0	Reserved
1	1	1	reserved for extension

NOTE 1: For the definition of "number" see ITU-T Recommendation I.330 and 3GPP TS 23.003.

NOTE 2: The type of number "unknown" is used when the user or the network has no knowledge of the type of number, e.g. international number, national number, etc. In this case the number digits field is organized according to the network dialling plan, e.g. prefix or escape digits might be present.

NOTE 3: Prefix or escape digits shall not be included.

NOTE 4: The type of number "network specific number" is used to indicate administration/service number specific to the serving network, e.g. used to access an operator.

NOTE 5: The international format shall be accepted by the MSC when the call is destined to a destination in the same country as the MSC.

Table 10.5.118/3GPP TS 24.008: Called party BCD number (continued)

Numbering plan identification (octet 3)

Number plan (applies for type of number = 000, 001, 010 and 100)

Bits 4	3	2	1	
0	0	0	0	Unknown
0	0	0	1	ISDN/telephony numbering plan (Rec. E.164/E.163)
0	0	1	1	data numbering plan (Recommendation X.121)
0	1	0	0	telex numbering plan (Recommendation F.69)
1	0	0	0	national numbering plan
1	0	0	1	private numbering plan
1	0	1	1	reserved for CTS (see GSM 04.56)
1	1	1	1	reserved for extension

All other values are reserved.

When an MS is the recipient of number information from the network, any incompatibility between the number digits and the number plan identification shall be ignored and a STATUS message shall not be sent to the network.

In the case of numbering plan "unknown", the number digits field is organized according to the network dialling plan; e.g. prefix or escape digits might be present.

Table 10.5.118/3GPP TS 24.008: Called party BCD number (continued)

Number digits (octets 4, etc.)

Bits 4	3	2	1	Or 8	7	6	5	Number digit value
0	0	0	0					0
0	0	0	1					1
0	0	1	0					2
0	0	1	1					3
0	1	0	0					4
0	1	0	1					5
0	1	1	0					6
0	1	1	1					7
1	0	0	0					8
1	0	0	1					9
1	0	1	0					*
1	0	1	1					#
1	1	0	0					A
1	1	0	1					B
1	1	1	0					C
1	1	1	1					used as an endmark in the case of an odd number of number digits

********** Added for information **********

10.5.4.33 Service category

The purpose of the *Service category* information element is to provide the network with information about services invoked by the user equipment.

The *Service category* information element is coded as shown in figure 10.5.118d/3GPP TS 24.008 and table 10.5.135d/3GPP TS 24.008

The *Service category* is a type 4 information element with a minimum length of 3 octets.

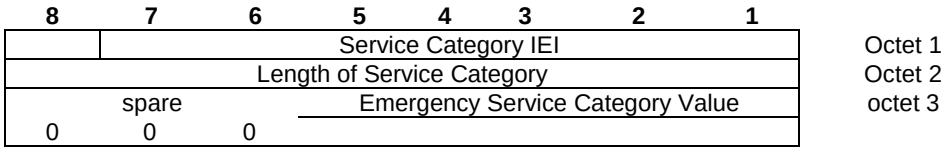

Figure 10.5.118d/3GPP TS 24.008 Service Category information element

Table 10.5.135d/3GPP TS 24.008: Service Category information element

Emergency Service Category Value (octet 3)
The meaning of the Emergency Category Value is derived from the following settings (Please see 3GPP TS 22.101 clause 8):
Bit 1 Police
Bit 2 Ambulance
Bit 3 Fire Brigade
Bit 4 Marine Guard
Bit 5 Mountain Rescue
Bits 6,7,8 are spare and set to "0"

Mobile station may set one or more bits to "1"
If more than one bit is set to "1", routing to a combined Emergency centre (e.g. ambulance and fire brigade in Japan) is required. If the MSC can not match the received service category to any of the emergency centres, it shall route the call to an operator defined default emergency centre.

If no bit is set to "1", the MSC shall route the Emergency call to an operator defined default emergency centre