3GPP TSG-T (Terminals) Meeting #17
Biarritz, France, 4 - 6 September, 2002

Tdoc TP-020204

Agenda Item: 5.2.3

Source: T2

Title: "SMS/EMS/CBS" Change Requests

Document for: Approval

Spec	CR	Rev	Rel	Subject	Cat	Vers-Current	Vers-New	T2 doc	Workitem
23.040	061	-	Rel-5	Error in MS example error	F	5.4.0	5.5.0	T2-020721	TEI5
23.040	062	-	Rel-6	Identification of a directory number in the User Data Field	F	5.4.0	6.0.0	T2-020761	TEI6
23.041	011	-	Rel-6	Identification of a directory number in a CBS-Message-Information-Page	F	5.0.0	6.0.0	T2-020762	TEI6

3GPP TSG-T2 #18
Velen, Germany
12 -16 August 2002

T2-020721

CR-Form-v7

CHANGE REQUEST

⌘ **23.040** **CR** **61** ⌘ **rev** **-** ⌘ Current version: **5.4.0** ⌘

*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 [X] Radio Access Network [ ] Core Network [X]

Title:	⌘	Error in MS example error
Source:	⌘	T2
Work item code:	⌘	TEI5
Date:	⌘	24/7/02
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:	⌘	Insufficient Memory is given as an example for both Error in MS and Memory Capacity Exceeded. This has caused confusion for developers
Summary of change:	⌘	Delete the words relating to insufficient memory from the Error in MS example
Consequences if not approved:	⌘	Questions will continue to arise asking which error cause conveys insufficient memory

Clauses affected:	⌘	

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

Other comments:	⌘	

How to create CRs using this form:
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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.

Table 1: Error indications related to mobile terminated short message transfer which may be transferred to the originating SC

Error indication	S[1)]	Meaning
Unknown subscriber	P	The PLMN rejects the short message TPDU because there is not allocated an IMSI or a directory number for the mobile subscriber in the HLR (see 3GPP TS 29.002 [15]).
Teleservice not provisioned	P	The PLMN rejects the short message TPDU because the recipient MS has no SMS subscription (see 3GPP TS 29.002 [15]).
Call barred	T	The PLMN rejects the short message TPDU due to barring of the MS (see 3GPP TS 29.002 [15], description of the Barring supplementary service, 3GPP TS 22.004 [3] and 3GPP TS 23.011[7]), description of Call barred due to Unauthorised Message Originator, 3GPP TS 29.002 [15], and description of Operator Determined Barring, 3GPP TS 22.041 [4] and 3GPP TS 23.015 [8]).
Facility not supported	T	The VPLMN rejects the short message TPDU due to no provision of the SMS in the VPLMN (see 3GPP TS 29.002 [15]).
Absent subscriber	T	The PLMN rejects the short message TPDU because - there was no paging response via the SGSN, MSC or both~~,~~ (see GSM 44.008 [12] & 3GPP TS 29.002 [15]) - the IMSI GPRS or both records are marked detached (see 3GPP TS 29.002 [15]), - the MS is subject to roaming restrictions (see "Roaming not allowed", 3GPP TS 29.002 [15]). - deregistered in the HLR. The HLR does not have an MSC, SGSN or both numbers stored for the target MS, (see 3GPP TS 29.002 [15]) - Unidentified subscriber (see 3GPP TS 29.002 [15]) - MS purged, (see 3GPP TS 29.002 [15]) (The reasons for absence are assigned integer values in table 1a. The appropriate integer value is sent with the absent subscriber error indication as defined in 3GPP TS 29.002 [15])
MS busy for MT SMS	T	The PLMN rejects the short message TPDU because of congestion encountered at the visited MSC or the SGSN. Possible reasons include any of the following events in progress: - short message delivery from another SC; - IMSI or GPRS detach - Location Update or Inter SGSN Routing Area Update; - paging; - emergency call; - call setup.
SMS lower layers capabilities not provisioned	T	The PLMN rejects the short message TPDU due to MS not being able to support the Short Message Service. The short message transfer attempt is rejected either due to information contained in the class-mark, or the MSC not being able to establish connection at SAPI = 3 (see GSM 44.008 [12] and 3GPP TS 29.002 [15]).
Error in MS	T	The PLMN rejects the short message TPDU due to an error occurring within the MS at reception of a short message, e.g. ~~lack of free memory capacity or~~ protocol error.
Illegal Subscriber	P	The PLMN rejects the short message TPDU because the MS failed authentication
Illegal Equipment	P	The PLMN rejects the short message TPDU because the IMEI of the MS was black-listed in the EIR

System failure	T	The PLMN rejects the short message TPDU due to network or protocol failure others than those listed above (see 3GPP TS 29.002 [15])
Memory Capacity Exceeded	T	The MS rejects the short message since it has no memory capacity available to store the message

1) : Status (Permanent or Temporary)

The relation between the two sets of error indications is given in the table 1. Each error is classified as either "Temporary" or "Permanent". This classification gives an indication of whether or not it is probable that the MS becomes attainable within a reasonable period, and so provides the recommended action to be taken by the SC, i.e. either to store the message for later transfer, or to discard it.

Table 1a: Assignment of values to reasons for absence (values must be in the range of 0 to 255, see 3GPP TS 29.002 [15])

Values	**Reason for absence**
0	- no paging response via the MSC
1	- IMSI detached
2	- roaming restriction
3	- deregistered in the HLR for non GPRS
4	- MS purged for non GPRS
5	- no paging response via the SGSN
6	- GPRS detached
7	- deregistered in the HLR for GPRS
8	- MS purged for GPRS
9	- Unidentified subscriber via the MSC
10	- Unidentified subscriber via the SGSN
All ´non GPRS´ reasons (except for roaming restriction) can be combined with all ´GPRS´ reasons and vice-versa	
All other integer values are reserved.	

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CR-Form-v7

CHANGE REQUEST

⌘ **23.040** **CR** **62** ⌘ **rev** **-** ⌘ Current version: **5.4.0** ⌘

*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 [X] Radio Access Network [ ] Core Network [ ]

Title:	⌘	Identification of a directory number in the User Data Field
Source:	⌘	T2
Work item code:	⌘	TEI6
Date:	⌘	24/7/02
Category:	⌘	**F**
Release:	⌘	Rel-6

Use one of the following categories:
F *(correction)*
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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 way in which a directory number is identified in the User Data Field is described in 22.101 but there is no reference to 22.101 in 23.040. It is better to put all the information relating to this feature in 23.040
Summary of change:	⌘	Add a new section concerning the identification of directory numbers in the User Data Field with the detail extracted from 22.101
Consequences if not approved:	⌘	Questions will continue to arise asking where this feature is defined as it is widely used in SMS

Clauses affected:	⌘	New section 9.2.3.24.13

	Y	N			
Other specs affected: ⌘	X		Other core specifications	⌘	22.101
		X	Test specifications		
		X	O&M Specifications		

Other comments:	⌘	This CR needs to be approved with the proposed corresponding CR to 22.101

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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.

9.2.3.24.13 Identification of a directory number within the User Data Field

A directory number may, as an optional feature, be identified within the User Data Field.

This allows, for example, a receiving entity to automatically identify a string of digits in the User Data Field as being a telephone number in order to facilitate easy call back by user action.

This shall be implemented by enclosing the directory number in inverted commas (character 0100010 from the 7 bit default alphabet in 23.038 [9] or its equivalent in other character sets).

Unspecified address formats or International address formats (using + symbol) may be used for the directory number.

Spaces may be included with the directory number inside the inverted commas. E.g. “+1 234 567 8901”

The User Data Field displayed to the recipient may contain more than one directory number, in which case it is for the user to select the one required.

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T2-020762

CR-Form-v7

CHANGE REQUEST

⌘ **23.041** **CR** **11** ⌘ **rev** **-** ⌘ Current version: **5.0.0** ⌘

*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 [ ]

Title:	⌘	Identification of a directory number in a CBS-Message-Information-Page
Source:	⌘	T2
Work item code:	⌘	TEI6 ***Date:*** ⌘ 7/8/02
Category:	⌘	**F** ***Release:*** ⌘ Rel-6

Use one of the following categories:
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D *(editorial modification)*
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R98	*(Release 1998)*
R99	*(Release 1999)*
Rel-4	*(Release 4)*
Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The way in which a directory number is identified in a CBS-Message-Information-Page is described in 22.101 but there is no reference to 22.101 in 23.041.
Summary of change:	⌘	New sub section identifying the feature and reference
Consequences if not approved:	⌘	Questions will continue to arise asking where this feature is defined

Clauses affected:	⌘	9.3.19 (new sub section added 9.3.19.1) and section 1.1

	Y	N			
Other specs affected: ⌘	X		Other core specifications	⌘	22.101
		X	Test specifications		
		X	O&M Specifications		

Other comments:	⌘	This CR needs to be approved with the proposed corresponding CR to 22.101

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1.1 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.

[1] Void

[2] 3GPP TS 22.003: "Circuit Teleservices supported by a Public Land Mobile Network (PLMN)".

[3] 3GPP TS 23.038: "Alphabets and language-specific information".

[4] 3GPP TS 23.040: "Technical realization of the Short Message Service (SMS)".

[5] 3GPP TR 03.47 Version 7.0.0: "Digital cellular telecommunication system (Phase 2+); Example protocol stacks for interconnecting Service Centre(s) (SC) and Mobile-services Switching Centre(s) (MSC)".

[6] 3GPP TR 03.49 Version 7.0.0: "Digital cellular telecommunication system (Phase 2+); Example protocol stacks for interconnecting Cell Broadcast Centre (CBC) and Base Station Controler (BSC)".

[7] 3GPP TS 24.012: "Short Message Service Cell Broadcast (SMSCB) support on the mobile radio interface".

[8] 3GPP TS 45.002: " Multiplexing and multiple access on the radio path".

[9] 3GPP TS 27.005: "Use of Data Terminal Equipment - Data Circuit terminating Equipment (DTE - DCE) interface for Short Message Service (SMS) and Cell Broadcast Service (CBS)".

[10] 3GPP TS 48.052: "Base Station Controller - Base Transceiver Station (BSC - BTS) interface; Interface principles".

[11] 3GPP TS 48.058: "Base Station Controller - Base Transceiver Station (BSC - BTS) interface; Layer 3 specification".

[12] ITU-T Recommendation X.210: "Information technology - Open systems interconnection - Basic Reference Model: Conventions for the definition of OSI services".

[13] 3GPP TS 48.008: "Mobile-services Switching Centre - Base Station System (MSC-BSS) interface; Layer 3 specification".

[14] 3GPP TS 23.042: "Compression algorithm for text messaging services".

[15] 3GPP TS 23.048: "Security Mechanisms for the SIM application toolkit; Stage 2".

[16] 3GPP TS 25.331: "RRC Protocol Specification".

[17] 3GPP TS 25.401: "UTRAN Overall Description".

[18] 3GPP TS 31.102: "Characteristics of the USIM Application".

[19] 3GPP TS 25.324: "Broadcast/Multicast Control BMC".

[20] 3GPP TR 21.905: "Vocabulary for 3GPP Specifications".

[21] 3GPP TR 25.925: "Radio Interface for Broadcast/Multicast Services".

[22] 3GPP TS 22.101 “Service aspects; Service Principles”

9.3.19 CBS-Message-Information-Page n

This parameter is of a fixed length of 82 octets and carries up to and including 82 octets of user information. Where the user information is less than 82 octets, the remaining octets must be filled with padding (see 3GPP TS 23.038 [3]).

The content of a CBS-Message-Information-Page is passed transparently from the CBC to the MS/UE.

In GSM the CBS-Message-Information-Page n becomes the 'Content of Message' parameter at the MS.

In UMTS the CBS-Message-Information-Pages together with the associated CBS-Message-Information-Length parameter is broadcasted as a single unit over the radio inteface.

In the case where the user information is GSM 7 bit default alphabet encoded, the appropriate padding characters and bit-fill are added to the end of the user information to complete the CBC-Message-Information-Page (see 3GPP TS 23.038 [3]).

In the case where the user information is 8 bit encoded, the appropriate padding octets are added to the end of the user information to complete the CBC-Message-Information-Page (see 3GPP TS 23.038 [3]).

9.3.19.1 Identification of a directory number within a CBS-Message-Information-Page

For information relating to this feature see 3GPP TS 22.101 [22]