3GPP TSG CN Plenary Meeting #20 **NP-030186**
4th - 6th June 2003. HÄMEENLINNA, Finland.

Source: **CN2**

Title: **CR on Rel-5 Work Item CAMEL4**

Agenda item: **8.3**

Document for: **APPROVAL**

Introduction:

This document contains 1 CR on Rel-5 WI CAMEL4. This CRs has been agreed by TSG CN WG2 and is forwarded to TSG CN Plenary meeting #20 for approval.

Spec	CR	Rev	Doc-2nd-Level	Phase	Subject	Cat	Ver_C
29.078	314	2	N2-030315	Rel-5	Health warning for Calling Party Number length in IDP SMS	F	5.3.0

3GPP TSG CN WG2 Meeting #29 **N2-030315**
San Diego, CA, USA, 19th - 23th May 2003 (revision of N2-030303)

CHANGE REQUEST

⌘ **29.078** **CR** **314** ⌘ **rev** **2** ⌘ Current version: **5.3.0** ⌘

Proposed change affects: UICC apps⌘ ☐ ME ☐ Radio Access Network ☐ Core Network **X**

Title:	⌘	Health warning for Calling Party Number length in IDP SMS
Source:	⌘	Ericsson
Work item code:	⌘	CAMEL4
Date:	⌘	May 23, 2003
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)*

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: ⌘ When the MSC or SGSN initiates a CAMEL dialogue with the SCP for a Mobile Terminated SMS, it includes the Calling Party Number in the InitialDPSMS Operation. The data type used to carry the Calling Party Number is ISDN-AddressString.

ISDN-AddressString may have a legth of nine OCTETs, of which one OCTET is used for header information, which leaves eight OCTETs for address digits, which corresponds with a maximum of 16 address digits.

The Calling Party Number for a Mobile Terminated SMS is carried in the TP-Originating-Address from SMS-Deliver-TPDU. SMS-Deliver-TPDU is contained in sm-RP-UI. Refer to 3GPP TS 23.040.

The TP-Originating-Address from SMS-Deliver-TPDU is encoded in accordance with the formatting of Address Fields (refer TS 23.040, section 9.2.3.7). Section 9.1.2.5 in TS 23.040 specifies the formatting of Address Fields. The maximum length of the full address field (Address-Length, Type-of-Address and Address-Value) is 12 octets, which leaves 10 Octets available for Address digits, which may carry 20 digits, which is four digits more than can be conveyed in ISDN-AddressString.

Hence, a maximum length Calling Party Number for MT-SMS can't be conveyed in CAP InitialDPSMS.

The present CR proposes the inclusion of a health warning in the InitialDPSMS Procedure. When the MSC or SGSN receives a MT SMS with a Calling Party Number that contains more than 16 digits, then the remaining digits shall be omitted in CAP InitialDPSMS.

Summary of change: ⌘ Include a health warning in the InitialDPSMS Procedure.

Consequences if not approved:	⌘	- incorrect specification; - unexpected behaviour of MSC or SGSN; - possible misoperation of systems.

Clauses affected:	⌘	12.5			
		Y	**N**		
Other specs affected:	⌘		**X**	Other core specifications	⌘
			X	Test specifications	
			X	O&M Specifications	
Other comments:	⌘				

— For Information – extract from 3GPP TS 29.078 V5.3.0 —

```
initialDPSMS {PARAMETERS-BOUND : bound} OPERATION ::= {
    ARGUMENT        InitialDPSMSArg {bound}
    RETURN RESULT   FALSE
    ERRORS          {missingCustomerRecord |
                    missingParameter |
                    parameterOutOfRange |
                    systemFailure |
                    taskRefused |
                    unexpectedComponentSequence |
                    unexpectedDataValue |
                    unexpectedParameter}
    CODE            opcode-initialDPSMS}
--  Direction: gsmSSF or gprsSSF -> gsmSCF, Timer: T_idpsms
--  This operation is used after a TDP to indicate request for service.

InitialDPSMSArg {PARAMETERS-BOUND : bound} ::= SEQUENCE {
    serviceKey                          [0] ServiceKey,
    destinationSubscriberNumber         [1] CalledPartyBCDNumber {bound}        OPTIONAL,
    callingPartyNumber                  [2] ISDN-AddressString                  OPTIONAL,
    eventTypeSMS                        [3] EventTypeSMS                        OPTIONAL,
    iMSI                                [4] IMSI                                OPTIONAL,
    locationInformationMSC              [5] LocationInformation                 OPTIONAL,
    locationInformationGPRS             [6] LocationInformationGPRS             OPTIONAL,
    sMSCAddress                         [7] ISDN-AddressString                  OPTIONAL,
    timeAndTimezone                     [8] TimeAndTimezone {bound}             OPTIONAL,
    tPShortMessageSpecificInfo          [9] TPShortMessageSpecificInfo          OPTIONAL,
    tPProtocolIdentifier                [10] TPProtocolIdentifier               OPTIONAL,
    tPDataCodingScheme                  [11] TPDataCodingScheme                 OPTIONAL,
    tPValidityPeriod                    [12] TPValidityPeriod                   OPTIONAL,
    extensions                          [13] Extensions {bound}                 OPTIONAL,
    ...,
    smsReferenceNumber                  [14] CallReferenceNumber                OPTIONAL,
    mscAddress                          [15] ISDN-AddressString                 OPTIONAL,
    sgsn-Number                         [16] ISDN-AddressString                 OPTIONAL,
    ms-Classmark2                       [17] MS-Classmark2                      OPTIONAL,
    gPRSMSClass                         [18] GPRSMSClass                        OPTIONAL,
    iMEI                                [19] IMEI                               OPTIONAL,
    calledPartyNumber                   [20] ISDN-AddressString                 OPTIONAL
    }
```

— For Information – extract from 3GPP TS 29.002 V5.4.0 —

```
AddressString ::= OCTET STRING (SIZE (1..maxAddressLength))
     -- This type is used to represent a number for addressing
     -- purposes. It is composed of
     --   a)   one octet for nature of address, and numbering plan
     --        indicator.
     --   b)   digits of an address encoded as TBCD-String.

     -- a)     The first octet includes a one bit extension indicator, a
     --        3 bits nature of address indicator and a 4 bits numbering
     --        plan indicator, encoded as follows:

     -- bit 8: 1  (no extension)

     -- bits 765: nature of address indicator
     --   000  unknown
     --   001  international number
     --   010  national significant number
     --   011  network specific number
     --   100  subscriber number
     --   101  reserved
     --   110  abbreviated number
     --   111  reserved for extension

     -- bits 4321: numbering plan indicator
     --   0000  unknown
     --   0001  ISDN/Telephony Numbering Plan (Rec ITU-T E.164)
     --   0010  spare
     --   0011  data numbering plan (ITU-T Rec X.121)
     --   0100  telex numbering plan (ITU-T Rec F.69)
     --   0101  spare
     --   0110  land mobile numbering plan (ITU-T Rec E.212)
     --   0111  spare
     --   1000  national numbering plan
     --   1001  private numbering plan
     --   1111  reserved for extension

     --   all other values are reserved.

     -- b)     The following octets representing digits of an address
     --        encoded as a TBCD-STRING.
```

```
maxAddressLength  INTEGER ::= 20
```

```
ISDN-AddressString ::=
              AddressString (SIZE (1..maxISDN-AddressLength))
     -- This type is used to represent ISDN numbers.
```

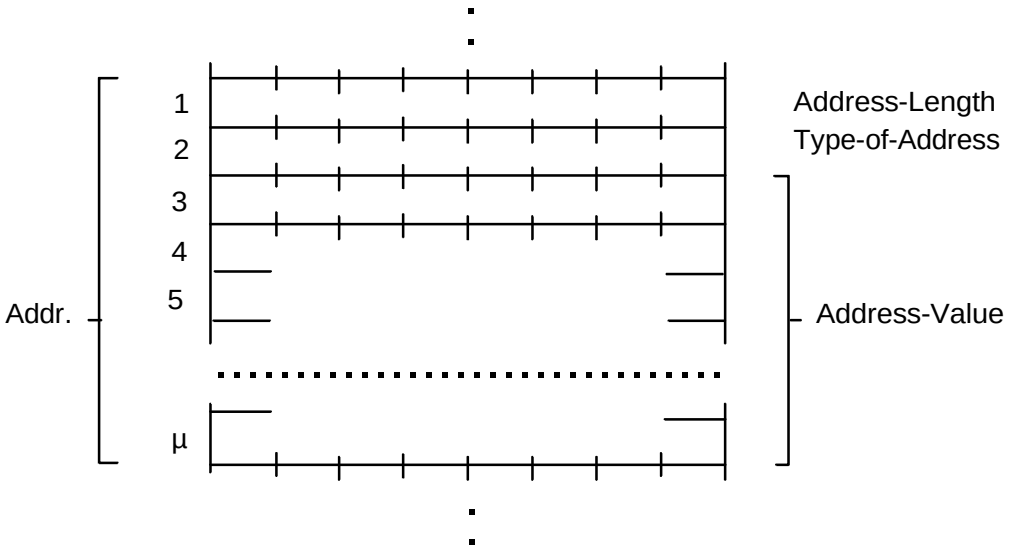
```
maxISDN-AddressLength  INTEGER ::= 9
```

— For Information – extract from 3GPP TS 23.040 V5.4.0 —

9.1.2.5 Address fields

Address fields used by SM-RL are specified in 3GPP TS 24.011 [13] and 3GPP TS 29.002 [15].

Each address field of the SM-TL consists of the following sub-fields: An Address-Length field of one octet, a Type-of-Address field of one octet, and one Address-Value field of variable length; as shown below:



...

The maximum length of the full address field (Address-Length, Type-of-Address and Address-Value) is 12 octets.

— First modified section —

12.5 InitialDPSMS procedure

12.5.1 General description

The smsSSF uses this operation after detection of a TDP-R in the smsSF FSM, to request the gsmSCF for instructions to complete the Short Message submission to the SMSC or the Short Message delivery to the served subscriber.

12.5.1.1 Parameters

- destinationSubscriberNumber:
  This parameter carries the ISDN number of the entity receiving the short message or the MSISDN of the destination subscriber, in an MO-SMS procedure.

- callingPartyNumber:
  In an MO-SMS procedure, this parameter carries the MSISDN of the subscriber. In an MT-SMS procedure, this parameter carries the address of the submitter of the short message.

  If the InitialDPSMS Operation is used in an MT SMS control scenario, and the calling party number received in MAP MT-ForwardSM contains more than 16 digits, then the callingPartyNumber parameter in the InitialDPSMS Operation shall contain the first 16 digits of the calling party number received in MAP MT-ForwardSM.

  NOTE The above restriction is required because the calling party number received in MAP MT-ForwardSM may contain up to 20 digits, whereas the callingPartyNumber parameter in the InitialDPSMS Operation may contain up to 16 digits.

- eventType:
  This parameter indicates the armed smsSSF FSM DP, resulting in the InitialDPSMS operation.

- iMSI:
  IMSI of the mobile subscriber for whom the CAMEL service is invoked.

- locationInformationInMSC:
  This parameter indicates the location of the MSC of the served subscriber. This parameter shall be included only if the InitialDP operation is sent from the MSC.

- locationInformationInSGSN:
  This parameter indicates the location of the SGSN of the served subscriber. This parameter shall be included only if the InitialDPSMS operation is sent from the SGSN.

- serviceKey:
  This parameter indicates to the gsmSCF the requested IN service. It is used to address the required application/SLP within the gsmSCF; it is not for gsmSCF addressing.

- timeAndTimeZone:
  This parameter contains the time that the smsSSF was triggered, and the time zone that the invoking smsSSF resides in.

- tPDataCodingScheme:
  This parameter indicates the data coding scheme of the TP-User-Data element within the TPDU. It may indicate a message class. The message class may indicate e.g. the originator of the Short Message.

- tPShortMessageSpecificInfo:
  This parameter contains the 1st octet of the TPDU. Refer to 3GPP TS 23.040 [6] for a description of the various TPDUs.

- tPProtocolIdentifier:
  This parameter indicates the protocol used above the SM-Transfer Layer.

- tPValidityPeriod:
  This parameter indicates the length of the validity period or the absolute time of the validity period termination.

- sMSCAddress:
  This parameter defines the address of the SMSC to which the Short Message is intended to be submitted.

- smsReferenceNumber:
  This parameter contains the SMS Reference Number assigned to the Short Message by the MSC or SGSN.

- mscAddress:
  This parameter contains the E.164 address of the MSC. It shall be present if the SMS processing takes place in the MSC; otherwise shall be absent.

- sgsn-Number:
  This parameter contains the Global Title of the SGSN. It shall be present if the SMS processing takes place in the SGSN; otherwise it shall be absent.

- ms-Classmark2:
  This parameter contains the MS Classmark 2 of the mobile subscriber for which the service is invoked.

- gPRSMSClass:
  This parameter contains the GPRS MS capabilities of the mobile subscriber for which the CAMEL service is invoked.

- iMEI:
  This parameter contains the IMEI (with software version) of the mobile subscriber for which the service is invoked.

- calledPartyNumber:
  This parameter indicates the served subscriber in an MT-SMS procedure.

. . .

— End of CR —