3GPP TSG CN Plenary Meeting #23 **NP-040061**
10th – 12th March 2004 Phoenix, USA.

Source: TSG CN WG4

Title: Corrections on TEI6 (MAP)

Agenda item: 9.22

Document for: APPROVAL

Spec	CR	Rev	Doc-2nd-Level	Phase	Subject	Cat	Ver_C
29.002	721		N4-040171	Rel-6	Clarification in the definition of the QoS Profile IE encoding	F	6.4.0
29.002	709	1	N4-040328	Rel-6	SCCP segmentation for Inter PLMN MAP message	F	6.4.0

3GPP TSG CN WG4 Meeting #22
Atlanta, USA, 12th – 16st February 2004

N4-040171

CR-Form-v7

CHANGE REQUEST

⌘ **29.002** **CR** **721** ⌘ **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:	⌘	CR implemented by fault
Source:	⌘	CN4
Work item code:	⌘	TEI6
Date:	⌘	05/02/2004
Category:	⌘	**F**
Release:	⌘	Rel-6

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:	⌘	CR 696 (N4-031373) was conditionally approved in the 3GPP WG CN4 #21 meeting depending on the approval of CR 227 (S2-033677) on 23.271. That CR was not approved in 3GPP WG SA2 Bangkok meeting.
Summary of change:	⌘	Remove v-gmlc parameter from MAP-RESTORE-DATA message.
Consequences if not approved:	⌘	Incompatibility between 3GPP TS 29.002 and 3GPP TS 23.271.

Clauses affected:	⌘	8.10.3.2, 8.10.3.2, 17.7.1

		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:
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.

First modification

8.10.3 MAP_RESTORE_DATA service

8.10.3.1 Definition

This service is invoked by the VLR on receipt of a MAP_PROVIDE_ROAMING_NUMBER indication for an unknown IMSI, or for a known IMSI with the indicator "Confirmed by HLR" set to "Not confirmed". The service is used to update the LMSI in the HLR, if provided, and to request the HLR to send all data to the VLR that are to be stored in the subscriber's IMSI record.

The MAP_RESTORE_DATA service is a confirmed service using the service primitives defined in table 8.10/3.

8.10.3.2 Service primitives

Table 8.10/3: MAP_RESTORE_DATA

Parameter name	Request	Indication	Response	Confirm
Invoke Id	M	M(=)	M(=)	M(=)
IMSI	M	M(=)		
LMSI	U	C(=)		
Supported CAMEL phases	C	C(=)		
SoLSA Support Indicator	C	C(=)		
IST Support Indicator	C	C(=)		
Super-Charger Supported in Serving Network Entity	C	C(=)		
Long FTN Supported	C	C(=)		
Supported LCS Capability Sets	C	C(=)		
Offered CAMEL 4 CSIs	C	C(=)		
~~V-GMLC Address~~	~~C~~	~~C(=)~~		
HLR number			C	C(=)
MS Not Reachable Flag			C	C(=)
User error			C	C(=)
Provider error				O

8.10.3.3 Parameter definitions and use

Invoke Id

See definition in clause 7.6.1.

IMSI

See definition in clause 7.6.2.

LMSI

See definition in clause 7.6.2. It is an operator option to provide the LMSI from the VLR; it is mandatory for the HLR to support the LMSI handling procedures.

Supported CAMEL Phases

This parameter indicates which phases of CAMEL are supported. Must be present if a CAMEL phase different from phase 1 is supported. Otherwise may be absent.

SoLSA Support Indicator

This parameter is used by the VLR to indicate to the HLR in the Restore Data indication that SoLSA is supported. If this parameter is not included in the Restore Data indication then the HLR shall not perform any specific error handling.

This SoLSA Support Indicator shall be stored by the HLR per VLR where there are Subscribers roaming. If a Subscriber is marked as only allowed to roam in Subscribed LSAs while roaming in a VLR and no SoLSA Support indicator is stored for that VLR, the location status of that Subscriber shall be set to Restricted.

IST Support Indicator

This parameter is used to indicate to the HLR that the VMSC supports basic IST functionality, that is, the VMSC is able to terminate the Subscriber Call Activity that originated the IST Alert when it receives the IST alert response indicating that the call(s) shall be terminated. If this parameter is not included in the Restore Data indication and the Subscriber is marked as an IST Subscriber, then the HLR may limit the service for the subscriber (by inducing an Operator Determined barring of Outgoing calls), or allow service assuming the associated risk of not having the basic IST mechanism available.

This parameter can also indicate that the VMSC supports the IST Command service, including the ability to terminate all calls being carried for the identified subscriber by using the IMSI as a key. If this additional capability is not included in the Restore Data indication and the HLR supports the IST Command capability, then the HLR may limit the service for the subscriber (by inducing an Operator Determined barring of Outgoing calls), or allow service assuming the associated risk of not having the IST Command mechanism available.

Long FTN Supported

This parameter indicates that the VLR supports Long Forwarded-to Numbers.

Super-Charger Supported in Serving Network Entity

This parameter is used by the VLR to indicate to the HLR that the VLR supports the Super-Charger functionality and that subscriber data is required.

If this parameter is absent then the VLR does not support the Super-Charger functionality.

Supported LCS Capability Sets

This parameter indicates, if present, the capability sets of LCS which are supported. If the parameter is sent but no capability set is marked as supported then the VLR does not support LCS at all.

If this parameter is absent then the VLR may support at most LCS capability set 1, that is LCS Release98 or Release99 version.

Offered CAMEL 4 CSIs

This parameter indicates the CAMEL phase 4 CSIs offered in the VMSC/VLR (see clause 7.6.3.36D).

HLR number

See definition in clause 7.6.2. The presence of this parameter is mandatory in case of successful outcome of the service.

MS Not Reachable Flag

See definition in clause 7.6.8. This parameter shall be present in case of successful outcome of the service, if the "MS Not Reachable flag" was set in the HLR.

~~V-GMLC address~~

~~See definition in clause 7.6.2.~~

User error

In case of unsuccessful outcome of the service, an error cause shall be returned by the HLR. The following error causes defined in clause 7.6.1 may be used, depending on the nature of the fault:

- unknown subscriber;
- system failure;
- unexpected data value;
- data missing.

Provider error

For definition of provider errors see clause 7.6.1.

Next modification

17.7 MAP constants and data types

17.7.1 Mobile Service data types

……..

Omitted text

……..

```
-- fault recovery types

ResetArg ::= SEQUENCE {
     hlr-Number                         ISDN-AddressString,
     hlr-List                           HLR-List                        OPTIONAL,
     ...}

RestoreDataArg ::= SEQUENCE {
     imsi                               IMSI,
     lmsi                               LMSI                            OPTIONAL,
     extensionContainer                 ExtensionContainer              OPTIONAL,
     ... ,
     vlr-Capability                     [6] VLR-Capability              OPTIONAL,
     ~~v-gmlc-Address                   [0] GSN-Address                 OPTIONAL~~ }

RestoreDataRes ::= SEQUENCE {
     hlr-Number                         ISDN-AddressString,
     msNotReachable                     NULL                            OPTIONAL,
     extensionContainer                 ExtensionContainer              OPTIONAL,
     ...}
```

Modification end

3GPP TSG CN WG4 Meeting #22
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N4-040328

CR-Form-v7

CHANGE REQUEST

⌘ **29.002** **CR** **709** ⌘ **rev** **1** ⌘ Current version: **6.4.0** ⌘

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

Title:	⌘	SCCP segmentation for Inter PLMN MAP message
Source:	⌘	CN4
Work item code:	⌘	TEI6
Date:	⌘	26/01/2004
Category:	⌘	**F**
Release:	⌘	Rel-6

Use one of the following categories:
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Rel-5	*(Release 5)*
Rel-6	*(Release 6)*

Reason for change:	⌘	The SCCP segmentation should also be qualified of "risky" about Forward Short Message service, since this service represent an important inter-PLMN exchange
Summary of change:	⌘	the SCCP segmentation is qualified of "risky" for Forward Short Message. The related parameter name in AC version 2 are rename ForwardSM-Arg
Consequences if not approved:	⌘	If the SCCP segmentation is applied for forward short message at inter-PLMN exchange the message may not be delivered if XUDT messages are not supported at SCCP transit node.

Clauses affected:	⌘	Annex C

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

Other comments:	⌘	

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The following tables show the applicability of the mechanisms described above:

AC Version 4:

Parameter	SCCP-segmentation	Empty Begin	Empty Continue	TC-Result-NL	Invoke without indication	Invoke with indication	Result
ResumeCallHandlingArg	allowed	not allowed	n.a.	n.a.	not allowed	recommended	n.a.

AC Version 3:

Parameter	SCCP-segmentation	Empty Begin	Empty Continue	TC-Result-NL	Invoke without indication	Invo indi
InsertSubscriberDataArg	risky	not allowed	n.a.	n.a.	recommended	
SendIdentificationRes	allowed	n.a.	not allowed	not allowed	n.a.	
PrepareHO-Arg	allowed	not allowed	n.a.	n.a.	not allowed	
PrepareHO-Res	allowed	n.a.	recommended	not recommended	n.a.	
ProcessAccessSignalling-Arg	allowed	n.a.	n.a.	n.a.	not allowed	
ForwardAccessSignalling-Arg	allowed	n.a.	n.a.	n.a.	not allowed	
PrepareSubsequentHO-Arg	allowed	n.a.	n.a.	n.a.	not allowed	
PrepareSubsequentHO-Res	allowed	n.a.	n.a	not recommended	n.a.	
SendAuthenticationInfoRes	risky	n.a.	not allowed	not allowed	n.a.	
ProvideSubscriberInfoRes	allowed	n.a.	not allowed	not recommended	n.a.	
AnyTimeInterrogationRes	allowed	n.a.	not allowed	not recommended	n.a.	
AnyTimeModificationRes	allowed	n.a.	not allowed	recommended	n.a.	
AnyTimeSubscriptionInterrogationRes	allowed	n.a.	not allowed	recommended	n.a.	
noteSubscriberDataModifiedArg	allowed	not allowed	n.a.	n.a.	not allowed	recom
SendRoutingInfoRes	allowed	n.a.	not allowed	recommended	n.a.	
MO-ForwardSM-Arg	risky~~allowed~~	recommended	n.a.	n.a.	not allowed	
MT-ForwardSM-Arg	risky~~allowed~~	recommended	n.a.	n.a.	not allowed	

AC Version 2:

Parameter	SCCP-segmentation	Empty Begin	Empty Continue	TC-Result-NL	Invoke without indication	Invoke with indication	Re
InsertSubscriberDataArg	risky	not allowed	not allowed	n.a.	recommended	n.a.	r
SendIdentificationRes	allowed	n.a.	not allowed	not recommended	n.a.	n.a.	allo
SendAuthenticationInfoRes	risky	n.a.	not allowed	not recommended	n.a.	n.a.	allo
~~MO-~~ForwardSM-Arg	risky~~allowed~~	recommended	n.a.	n.a.	not allowed	n.a.	r
~~MT-ForwardSM-Arg~~	~~allowed~~	~~recommended~~	~~n.a.~~	~~n.a.~~	~~not allowed~~	~~n.a.~~	~~r~~
PrepareHO-Res	allowed	n.a.	recommended	not recommended	n.a.	n.a.	allo

AC Version 1:

Parameter	SCCP-segmentation	Empty Begin	Empty Continue	TC-Result-NL	Invoke without indication	Invoke with indication	Result
InsertSubscriberDataArg	risky	n.a.	n.a.	n.a.	recommended	n.a.	n.a.
SentParameterList	risky	n.a.	n.a.	recommended	n.a.	n.a.	not allowed

In the tables above the keywords "recommended", "allowed", "risky", "not recommended", "not allowed" and "n.a." are used as follows:

"**recommended**"
indicates that the normative part of this specification explicitly specifies the use of this mechanism for the parameter in question;

"**allowed**"
indicates that the normative part of this specification allows the use of this mechanism for the sending node and mandates support of this mechanism for the receiving node;

"**risky**"
indicates that the mechanism is "allowed".However, the use of this mechanism for the parameter in question may result in serious misoperation because SCCP transit nodes are not guaranteed to support XUDT messages.

"**not recommended**"
indicates that the normative part of this specification does not explicitly specify the use of this mechanism for the parameter in question.

"**not allowed**"
indicates that the normative part of this specification implicitly prohibits the use of this mechanism for the parameter in question.

"**n.a.**"
indicates that the mechanism is not applicable for the parameter in question.