Source:	**ORANGE, ERICSSON, LUCENT**
Title:	Addition of an error mapping table for MAP Update Location operation
Agenda item:	**7.11**
Document for:	**APPROVAL**

3GPP TSG CN WG4 Meeting #15
Helsinki, Finland, 29th July – 2nd August 2002

N4-021052 - rev

CR-Form-v7

CHANGE REQUEST

| ⌘ | **29.010** CR **068** | ⌘ rev | **1**
2 | ⌘ | Current version: | **4.3.0** | ⌘ |
|---|---|---|---|---|---|---|---|

*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 **X**

Title: ⌘	Addition of an error mapping table for MAP Update Location operation	
Source: ⌘	Orange, Ericsson, Lucent	
Work item code:⌘	TEI	**Date:** ⌘ 10/07/2002

Category: ⌘ **A** (Agreed by consensus)	**Release:** ⌘ Rel-4

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 <u>TR 21.900</u>.

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: ⌘	The MAP Operations UPDATE_LOCATION_AREA and DETACH_IMSI have been removed from the R99 29.010 onward, following the removal of this operation in 29.002.
There is a need in the 29.010 of a mapping table between MAP and DTAP error causes for the Location Update procedure.
Summary of change: ⌘	Introduction of an error cause mapping table for the Location Update procedure.
Consequences if not approved: ⌘	Risk of inconsistent mapping by the MSC.
The consequence is that for the same error condition reported by the HLR, the handling of the UE will be different in different MSC implementations. Depending on the mapping done by the MSC the UE might be denied service.
Clauses affected: ⌘	2.1, 3.2

		Y	**N**			
Other specs	⌘		**X**	Other core specifications	⌘	
affected:			**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 MODIFIED SECTION   ****

2.1 Transparent procedures

The following MSC procedures require transparent mapping of ~~BSSAP~~access protocol information elements into MAP parameters and vice versa (see ~~GSM~~ 3GPP TS ~~09~~29.0~~0~~2 for definitions and the use of the procedures):

-    location update;

~~-   update location area;~~

~~-   detach IMSI;~~

-    forward new TMSI;

-    provide IMSI;

-    obtain IMEI;

-    check IMEI;

-    authenticate;

-    trace subscriber activity.

****   NEXT MODIFIED SECTION   ****

3.2   Location update

	24.008	29.002	Notes
Forward message	MM (LOCATION UPDATING REQUEST)	MAP_UPDATE_LOCATION_ request	
	Location area id	–	2
	Service area id	–	3
	Mobile identity	IMSI	
	Mobile station classmark 1	–	
	Mobile station classmark 2	–	
	Ciphering key seq number	–	
	Location update type	–	
	Cell identifier	–	
	Chosen channel	–	
Positive results	MM (LOCATION UPDATING ACCEPT)	MAP_UPDATE_LOCATION response	
	Location area identity	–	
	Mobile identity	–	
	Follow on proceed	–	
Negative results	MM (LOCATION UPDATING REJECT)	MAP_UPDATE_LOCATION response	
	IMSI unknown in HLR	Unknown subscriber	1
	PLMN not allowed	Roaming not allowed: PLMN not allowed	
	LA not allowed	–	
	Roaming not allowed in this LA	–	
	No Suitable cells in location area	–	
	PLMN not allowed	Operator determined barring	
	Illegal MS	–	
	Illegal ME	–	
	Network failure	System Failure	
	Network failure	Unexpected data value	
	Network failure	MAP_U/P_ABORT	
	Network failure	MAP_NOTICE	
	Network failure	MAP_CLOSE	

NOTE 1   The HLR shall also send this error if there is an error in the type of subscription (i.e. VLR requests service for a GPRS only subscriber).

NOTE 2   This parameter applies for GSM/GERAN access

NOTE 3   This parameter applies for UTRAN access

****   END OF MODIFICATIONS   ****