

CR-Form-v7
<b>CHANGE REQUEST</b>
⌘ <b>03.71 CR 048</b> ⌘ rev <b>-</b> ⌘ Current version: <b>7.10.0</b> ⌘

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

<b>Title:</b>	⌘ Correction of GERAN location request procedure		
<b>Source:</b>	⌘ SA2 Chairman		
<b>Work item code:</b>	⌘ LCS2	<b>Date:</b>	⌘ 09/06/2004
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ R98
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> 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)

<b>Reason for change:</b>	⌘ At RAN#22 changes were made to UTRAN LCS stage 2 for R99 and onwards to correct the interpretation of the LCS functional stage 2 in TS 23.271 and operation of the Location Request procedure. This CR also would mean that UTRAN and GERAN specifications are aligned.
<b>Summary of change:</b>	⌘ Remove the phrases relating to “satisfying the requested LCS QoS” as a deciding factor between successful and unsuccessful operation of the Location Request. Explicitly indicate that the SMLC shall return a location estimate, if available, even if requested accuracy is not satisfied.
<b>Consequences if not approved:</b>	⌘ Misalignment of behaviour between in the RNC and the SMLC. Also any obtained location estimate may be unnecessarily discarded by the SMLC.

<b>Clauses affected:</b>	⌘ 7.4.1.2, 7.11.1								
<b>Other specs affected:</b>	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="width: 20px; text-align: center;">Y</td> <td style="width: 20px; text-align: center;">N</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> <tr> <td style="text-align: center;"> </td> <td style="text-align: center;">X</td> </tr> </table> Other core specifications ⌘ Test specifications ⌘ O&M Specifications ⌘	Y	N		X		X		X
Y	N								
	X								
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<b>Other comments:</b>	⌘ This CR reflects approved changes made to stage 3 in R98 and R99 (GP-041077/8) and also GERAN LCS stage 2 (TS 43.059) R4 and onwards (GP-040681-3).								

**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 \*\*\*\*\*

## 7.4 State Description for the SMLC

### 7.4.1 SMLC States

#### 7.4.1.1 NULL State

This is a conceptual rather than actual state in which a certain location request from a particular VMSC or BSC either has not yet been received or has been completed.

#### 7.4.1.2 LOCATION State

This state exists after the SMLC has received a location request from a VMSC or BSC and persists while the SMLC is obtaining position measurements for a particular positioning method until such time as positioning measurements have been received and a location estimate has been computed and returned to the VMSC or BSC.

When sufficient positioning measurement results have been received, the SMLC either evaluates them, if they include an already computed location estimate, or uses them to compute a location estimate. The SMLC then has the option of either reinitiating another positioning attempt, [e.g. if the location estimate did not satisfy the required QoS and the requirement on response time permits another position attempt](#), or returning the location estimate to the VMSC or BSC.

\*\*\*\*\* NEXT MODIFIED SECTION \*\*\*\*\*

## 7.11 Exception Procedures

The procedures in this section apply to all variants of an MT-LR, NI-LR and MO-LR where a BSSMAP-LE Perform Location Request has been sent to an SMLC by a BSC or MSC requesting some location service (e.g. provision of a location estimate for a target MS or transfer of assistance data to a target MS).

### 7.11.1 Procedures in the SMLC

When a request for a location estimate fails due to failure of a position method itself (e.g. due to inaccurate or insufficient position measurements and related data) and the SMLC is unable to instigate another positioning attempt (e.g. due to a requirement on response time), the SMLC may return a BSSMAP-LE Perform Location response containing a less accurate location estimate (e.g. based on serving cell and timing advance). If a less accurate estimate is not available ~~or will not meet the accuracy requirement~~, the SMLC shall instead return a BSSMAP-LE Perform Location response message containing no location estimate and indicating the cause of failure.

When a request for any other location service (e.g. transfer of assistance data to a target MS) fails for any reason and the SMLC is unable to reattempt the service, the SMLC shall return a BSSMAP-LE Perform Location response message indicating the cause of failure.

When a location service request is interrupted by some other unrecoverable error event inside the SMLC, the SMLC shall immediately terminate the location service attempt and return a BSSMAP Perform Location Response message containing the reason for the location service cancellation. In that case, any dialogue previously opened with an LMU or BSC for the purpose of instigating position measurements for any MS being located may also be aborted by the SMLC.

If the SMLC receives a BSSMAP-LE Perform Location Abort indication for a previous location service request from the VMSC (NSS based SMLC) or BSC (BSS based SMLC), it shall immediately terminate the location service attempt and may abort any dialogues used for the location service attempt that may still exist with any LMUs. Although the SMLC cannot abort any location procedure instigated in the serving BSC (e.g. for TOA), the circumstances of the abort may still ensure cancellation of any such procedure (see section on BSC).

If the SMLC has instigated any location related procedure in the Target MS or its serving BSC and receives a BSSLAP Reject, BSSLAP Abort or BSSLAP Reset indication from the BSC, it shall cancel the location service attempt and may abort any dialogues for this that currently exist with any LMUs. For a BSSLAP Abort, the SMLC shall then either return any location estimate already derived, if this was requested ~~and is sufficient for the requested QoS~~, or return a

BSSMAP-LE Perform Location response indicating failure of the location service and the cause of the failure in the BSSLAP Abort. For a BSSLAP Reject and BSSLAP Reset, the SMLC has the additional option of restarting the location service attempt and using the same or a different position method where a location estimate was requested. A decision to restart the location service shall take into account the cause of the location service failure as conveyed in the BSSLAP Reject or BSSLAP Reset and whether, in the case of successful intra-BSC handover, the new cell for the target MS is still associated with the SMLC. If the SMLC receives a BSSLAP Reject or BSSLAP Reset with a cause indicating intra-BSC handover and with a new cell identity for the target MS that is not associated with the SMLC, the SMLC shall return a BSSMAP-LE Perform Location response containing either a location estimate, if requested, [and](#) available ~~and sufficient for the requested QoS~~, or a failure cause indicating “intra-BSC” handover.

NOTE: This procedure may only be needed for an NSS-based SMLC.

The SMLC may indicate an inability to support location due to overload by rejecting with a cause indicating congestion a BSSMAP-LE Perform Location request received from either an MSC or BSC.

\*\*\*\*\* END OF CHANGES \*\*\*\*\*