TSG-RAN Meeting #12
Stockholm, Sweden, 12 - 15 June 2001

RP-010306

Title: **Agreed CRs (Release '99 and Rel-4 / Rel-5 category A) to TS 25.305**

Source: **TSG-RAN WG2**

Agenda item: **8.2.3**

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Version	Versio
R2-011080	agreed	25.305	051		R99	Removal of positioning request transfer during SRNS relocation	F	3.5.0	3.6.0
R2-011410	agreed	25.305	052		Rel-4	Removal of positioning request transfer during SRNS relocation	A	4.0.0	4.1.0
R2-011411	agreed	25.305	053		Rel-5	Removal of positioning request transfer during SRNS relocation	A	5.0.0	5.1.0

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CHANGE REQUEST

⌘ **25.305** CR **051** ⌘ rev **-** ⌘ Current version: **3.5.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

Title: ⌘	Removal of positioning request transfer during SRNS relocation	
Source: ⌘	TSG-RAN WG2	
Work item code: ⌘	TEI	**Date:** ⌘ 2001-05-09
Category: ⌘ **F**		**Release:** ⌘ R99

Use one of the following categories:
F *(essential 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)*

Reason for change: ⌘	A LS was received from SA WG2 during RAN WG2 meeting #19. SA WG2 stated that ongoing Location requests will be stopped in the old RNC and re-initiated in the new RNC after SRNS relocation. Also, periodical location requests will be handled by the GMLC in the CN. With another LS, SA WG2 asked RAN WG2 to add a sentence clarifying the restrictions regarding position reporting within different countries in case of emergency services. Backward compatibility issues: The changes are backward compatible
Summary of change: ⌘	Location Requests are removed from the list of information which are sent from Source to Target RNC in case of SRNS relocation. Sentence clarifying position reporting in case of emergency services is added.
Consequences if not approved: ⌘	Inconsistency with LCS handling in the CN.

Clauses affected: ⌘	4; 7.2.1

Other specs affected: ⌘	☐	Other core specifications ⌘	
	☐	Test specifications	
	☐	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/3G_Specs/CRs.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://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 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.

4 Main concepts and requirements

The stage 1 LCS description providing an overall service description and the core requirements for the LCS at the service level is given in [5]. The stage 2 LCS description providing a system functional model for the whole system, the LCS system architecture, state descriptions and message flows are described in [13].

By measuring radio signals the capability to determine the geographic position of the UE shall be provided. The position information may be requested by and reported to a client (application) associated with the UE, or by a client within or attached to the CN. The position information may also be utilised internally by UTRAN, for example, for location assisted handover or to support other features such as home location billing. The position information shall be reported in standard formats, such as those for cell based or geographical co-ordinates, together with the time-of-day and the estimated errors (uncertainty) of the position of the UE. Restrictions on the geographic shape encoded within the 'position information' parameter may exist for certain LCS client types. The SRNC shall comply with any shape restrictions defined in GSM/UMTS and, in a particular country, with any shape restrictions defined for a specific LCS client type in relevant national standards. For example, in the US, national interim standard TIA/EIA/IS-J-STD-036 restricts the geographic shape for an emergency services LCS client to minimally either an "ellipsoid point" or an "ellipsoid point with uncertainty circle and confidence" as defined in [11].

It shall be possible for the majority of the UE (active or inactive) within a network to use the feature without compromising the radio transmission or signalling capabilities of the UTRAN.

The uncertainty of the position measurement shall be network implementation dependent at the choice of the network operator. The uncertainty may vary between networks as well as from one area within a network to another. The uncertainty may be hundreds of metres in some areas and only a few metres in others. In the event that the position measurement is also a UE-assisted process, the uncertainty may also depend on the capabilities of the UE. In some jurisdictions, there is a regulatory requirement for location service accuracy that is part of an emergency service. Further details of the accuracy requirements can be found in [5].

The uncertainty of the position information is dependent on the method used, the position of the UE within the coverage area and the activity of the UE. Several design options of the UTRAN system (e.g. size of cell, adaptive antenna technique, path loss estimation, timing accuracy, Node B surveys) shall allow the network operator to choose a suitable and cost effective UE Positioning method for their market.

There are many different possible uses for the positioning information. The positioning functions may be used internally by the UTRAN, by value-added network services, by the UE itself or through the network, and by "third party" services. The feature may also be used by an emergency service (which may be mandated or "value-added"), but the location service is not exclusively for emergencies.

The UTRAN is a new radio system design without a pre-existing deployment of UE operating according to the radio interface. This freedom from legacy equipment enables the location service feature design to make use of appropriate techniques to provide the most accurate results. The technique must also be a cost-effective total solution, must allow evolution to meet evolving service requirements and be able to take advantage of advances in technology over the lifetime of UTRAN deployments.

7.2.1 Signalling in case of SRNS relocation

In case of SRNC relocation UE Positioning functionalities may be transferred in order for DRNC to be able to handle the responsibility of SRNC in LCS process. Therefore the Source RNC may transfer the following information to the Target RNC :

- last known position, time stamp and accuracy of the position calculation

- LCS capabilities of the UE

NOTE: If it is possible to transfer the location service requests that are stored in the Source RNC during SRNS relocation is ffs.

If there is a positioning procedure going on in order to estimate the position of the UE and a SRNS relocation occurs, the positioning procedure shall be stopped in the old SRNC. After SRNS relocation, the new SRNC then decides if a new positioning procedure should be started. In the UE, the positioning procedure is going on and positioning information (e.g. measurement results) may be sent back to UTRAN if the UE was requested to do so. The new SRNC then decides whether it wants to use these information or discard them.

CR-Form-v3

CHANGE REQUEST

⌘ **25.305 CR 052** ⌘ rev **-** ⌘ Current version: **4.0.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

Proposed change affects: ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

Title: ⌘	Removal of positioning request transfer during SRNS relocation	
Source: ⌘	TSG-RAN WG2	
Work item code: ⌘	TEI	***Date:*** ⌘ 2001-05-25
Category: ⌘ **A**		***Release:*** ⌘ REL-4

Use <u>one</u> of the following categories:
F (essential 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
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Use <u>one</u> of the following releases:
2   (GSM Phase 2)
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R97   (Release 1997)
R98   (Release 1998)
R99   (Release 1999)
REL-4 (Release 4)
REL-5 (Release 5)

Reason for change: ⌘	A LS was received from SA WG2 during RAN WG2 meeting #19. SA WG2 stated that ongoing Location requests will be stopped in the old RNC and re-initiated in the new RNC after SRNS relocation. Also, periodical location requests will be handled by the GMLC in the CN. With another LS, SA WG2 asked RAN WG2 to add a sentence clarifying the restrictions regarding position reporting within different countries in case of emergency services.
Summary of change: ⌘	Location Requests are removed from the list of information which are sent from Source to Target RNC in case of SRNS relocation. Sentence clarifying position reporting in case of emergency services is added.
Consequences if not approved: ⌘	Inconsistency with LCS handling in the CN.

Clauses affected: ⌘	4; 7.2.1

Other specs affected: ⌘	☐ Other core specifications ⌘	
	☐ Test specifications	
	☐ O&M Specifications	
Other comments: ⌘		

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CR-Form-v3

CHANGE REQUEST

| ⌘ | **25.305 CR 053** | ⌘ | rev | **-** | ⌘ | Current version: | **5.0.0** | ⌘ |

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Proposed change affects: ⌘   (U)SIM ☐   ME/UE ☐   Radio Access Network **X**   Core Network ☐

Title: ⌘	Removal of positioning request transfer during SRNS relocation	
Source: ⌘	TSG-RAN WG2	
Work item code: ⌘	TEI	***Date:*** ⌘ 2001-05-25
Category: ⌘	**A**	***Release:*** ⌘ REL-5

Use one of the following categories: **F** (essential 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)

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Clauses affected: ⌘	4; 7.2.1
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Other comments: ⌘	

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