TSG-RAN Meeting #15
Jeju-do, Korea, 5 - 8 March 2002

RP-020066

Title: **Agreed CRs (Release '99 and Rel-4 category A and related Rel-5) to TS 25.305 (3)**

Source: **TSG-RAN WG2**

Agenda item: 7.2.3

Doc-1st-	Status-	Spec	CR	Rev	Phase	Subject	Cat	Version	Versio	Workite
R2-020405	agreed	25.305	081	2	Rel-5	Correction to CELL ID positioning when UE is not reachable	F	5.3.0	5.4.0	TEI5
R2-020494	agreed	25.305	082	1	R99	Correction to CELL ID positioning when UE is not reachable	F	4.2.0	4.3.0	TEI
R2-020494	agreed	25.305	083		Rel-4	Correction to CELL ID positioning when UE is not reachable	A	5.3.0	5.4.0	TEI

CR-Form-v4

CHANGE REQUEST

✂ **25.305** CR **081** ✂ ev **r2** ✂ Current version: **5.3.0** ✂

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

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

Title: ✂	Correction to CELL ID positioning when UE is not reachable.	
Source: ✂	TSG-RAN WG2	
Work item code: ✂	TEI5	**Date:** ✂ 18/02/02
Category: ✂ **F**	*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.	**Release:** ✂ REL-5 *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: ✂	Since at least R'97, it has been possible to build services based on the last known "GSM cell ID" of the mobile. Unfortunately, R'99 seems to have damaged this functionality.
Summary of change: ✂	Clarification for the provision of a last known location for a UE.
Consequences if not approved: ✂	Location information will be out of line with earlier GSM release(s), will not work well.

Clauses affected: ✂	8.1.1
Other specs affected: ✂	☐ Other core specifications ✂ 23.271, 25.413 ☐ 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://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. ⌘

8.1.1   UE Cell ID is not known

For UE for which the cell ID is not known at the time the UE Positioning request is received at the SRNC, the UE may be paged to locate its current cell ID. If the UE is in an idle mode and there is a need for it to be paged, then the paging shall be initiated by the CN. If the UE is in URA_PCH state the paging may be initiated by the SRNC in UTRAN. For example, the UE can be forced to perform a transition to a Cell_FACH state to define the cell ID of its current cell.

If the UE is in an idle mode, or in a RRC connected state when there is a need to page for the UE to obtain the cell ID, the CN may initiate paging, authentication and ciphering, as specified in [13]. Alternatively, the cell ID may be determined as the one that was used during the last active connection to the UE. In the case the UE is not reachable, the last known position should include the age of location field. This determination should be accompanied by the time of day of the last connection in the cell.

CR-Form-v4

CHANGE REQUEST

⌘ **25.305** CR **083** ⌘ ev **-** ⌘ Current version: **4.2.0** ⌘

*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: ⌘	Correction to CELL ID positioning when UE is not reachable.
Source: ⌘	TSG-RAN WG2
Work item code: ⌘ TEI	**Date:** ⌘ 21/02//02
Category: ⌘ **A**	**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 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: ⌘	RAN3 discovered that there is a contradiction between TS 25.305 and TS 23.271(TS 23.171 for R99): TS 25.305 requires the RNC to deliver in the outlined scenario (see S2's LS) the last known location and the age of that location information, whereas TS 23.271 specifies the RNC to report a failure:

Extract from TS 25.305 V3.7.0/V4.2.0
8.1.1   UE Cell ID is not known
For UE for which the cell ID is not known at the time the UE Positioning request is received at the SRNC, the UE may be paged to locate its current cell ID. If the UE is in an idle mode and there is a need for it to be paged, then the paging shall be initiated by the CN. If the UE is in URA_PCH state the paging may be initiated by the SRNC in UTRAN. For example, the UE can be forced to perform a transition to a Cell_FACH state to define the cell ID of its current cell.
If the UE is in an idle mode, or in a RRC connected state when there is a need to page for the UE to obtain the cell ID, the CN may initiate paging, authentication and ciphering, as specified in [13].
Alternatively, the cell ID may be determined as the one that was used during the last active connection to the UE. This determination should be accompanied by the time-of-day of the last connection in the cell.

Extract from TS 23.171 v3.6.0
8.7.1.3 Location Calculation and Release Procedure
(10)   When a location estimate best satisfying the requested QoS has been obtained, the SRNC returns it to the 3G-MSC in a Location Report message. If a location estimate could not be obtained, the SRNC returns a Location Report message containing a failure cause and no location estimate.

Extract from TS 23.271 v4.4.0
9.1.6.3 Location Calculation and Release Procedure
9)   When location information best satisfying the requested location type and QoS has been obtained, the RAN returns it to the SGSN in a Location Report message. If a location estimate could not be obtained, the RAN returns a

		Location Report message containing a failure cause and no location estimate.
		TS 25.413 and TS 23.060 follow the procedural description of TS 23.171/TS 23.271.
		Isolated Impact: It should be recognised that, for R'99 based on TS 23.171/23.271, the Any Time Interrogation service will work (although not optimally) and that the proposed changes may only harm implementation that follows the sole understanding described in TS 25.305.
		Furthermore for implementations affected by this correction, namely those based only on TS 25.305 and not on TS 23.171/23.271, the RNC only seems to need to be upgraded if:
		1) the operator is using a Gs interface between the MSC and SGSN to which the SRNC is connected,
		AND
		2) the manufacturer/operator is using 'long lived' Iu interface connections for mobiles that are in the URA-PCH state.
Summary of change: ⌘		Alignment of 25.305 according to 23.171/23.271.
Consequences if not approved: ⌘		There will still be a misalignment between two different stage 2 specifications that will lead to different implementations and interpretability issues.

Clauses affected: ⌘		7.3.1, 8.1.1

Other specs affected: ⌘	☐	Other core specifications	⌘	25.305 v3.7.0, CR 082
	☐	Test specifications		
	☐	O&M Specifications		

Other comments: ⌘		

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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. ⌘

7.3.1 Procedures in the SRNC

When a positioning attempt fails due to failure of a position method itself (e.g. due to inaccurate or insufficient position measurements and related data) and the SRNC is unable to instigate another positioning attempt (e.g. due to a requirement on response time), the SRNC may ~~return a Location response over the Iu interface containing a less accurate position estimate. If a less accurate estimate is not available or will not meet the accuracy requirement, the SRNC may~~ instead return a Location response message containing no position estimate and indicating the cause of failure.

~~NOTE: Need to check that Iu has enough flexibility.~~

When a positioning attempt is interrupted by some other unrecoverable error event inside the SRNC, the SRNC shall immediately terminate the positioning attempt and return a Location Response message containing the reason for the positioning attempt cancellation. In that case, SRNC may also abort any dialogue previously opened with an LMU for the purpose of instigating position measurements for the UE being located.

8.1.1   UE Cell ID is not known

For UE for which the cell ID is not known at the time the UE Positioning request is received at the SRNC, the UE may be paged to locate its current cell ID. If the UE is in an idle mode and there is a need for it to be paged, then the paging shall be initiated by the CN. If the UE is in URA_PCH state the paging may be initiated by the SRNC in UTRAN. For example, the UE can be forced to perform a transition to a Cell_FACH state to define the cell ID of its current cell.

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CR-Form-v4

CHANGE REQUEST

⌘   **25.305** CR **082**   ⌘   ev **r1** ⌘   Current version: **3.7.0** ⌘

*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: ⌘	Correction to CELL ID positioning when UE is not reachable.
Source: ⌘	TSG-RAN WG2

Work item code: ⌘   TEI   **Date:** ⌘   21/02/02

Category: ⌘   **F**   **Release:** ⌘   R99

Use <u>one</u> of the following categories:
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    B *(addition of feature),*
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Reason for change: ⌘   RAN3 discovered that there is a contradiction between TS 25.305 and TS 23.271(TS 23.171 for R99): TS 25.305 requires the RNC to deliver in the outlined scenario (see S2's LS) the last known location and the age of that location information, whereas TS 23.271 specifies the RNC to report a failure:

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Summary of change: ⌘	Alignment of 25.305 according to 23.171/23.271.
Consequences if not approved: ⌘	There will still be a misalignment between two different stage 2 specifications that will lead to different implementations and interpretability issues.

Clauses affected: ⌘	7.3.1, 8.1.1		
Other specs affected: ⌘	☐ Other core specifications	⌘	25.305 v4.2.0, CR 083 no Rel-5 shadow CR needed!
	☐ Test specifications		
	☐ O&M Specifications		
Other comments: ⌘			

7.3.1 Procedures in the SRNC

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