Agenda Item: Ad Hoc 29
Source: Siemens
Title: CR 25.225-025 on RTD measurement in UTRAN for UP-TDD
Document for: Decision

According to TS 25.305 the OTDOA-IPDL method may be used for UE positioning (UP) in the TDD mode. This method requires knowledge of the relative NodeB timing.

TDD NodeBs are synchronised at a minimum required accuracy of 3µs. This value leads to an undesired bad accuracy for the OTDOA methods. By measuring the timing difference (RTD) between neighbouring cells the accuracy of the position calculation will be improved.

CHANGE REQUEST

✍	**25.225** CR **025**	✍	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 **X**   Radio Access Network **X**   Core Network ☐

Title:	✍	CR 25.225-025 on RTD measurement in UTRAN for UP-TDD
Source:	✍	Siemens AG
Work item code: ✍	UE Positioning enhancements	***Date:*** ✍ 23. Feb. 2001
Category: ✍	**B**	***Release:*** ✍ REL-4

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:	✍	RTD measurement is necessary to achieve sufficient accuracy for UP if the synchronisation of TDD cells fulfils only the minimum requirement.
Summary of change: ✍	Introduction of RTD measurement.	
Consequences if not approved:	✍	RTD measurement is necessary for the OTDOA positioning methods.

Clauses affected:	✍	5.2.10		
Other specs affected:	✍ **X**	Other core specifications	✍	25.331
	☐	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.

5.2.10 SFN-SFN observed time difference

Definition	SFN-SFN observed time difference = T_{RxTSk} - T_{RxTSi}, in chips, where
	T_{RxTSi}: time of start (defined by the first detected path in time) of a timeslot received by the LMU from the TDD cell i.
	T_{RxTSk}: time of start (defined by the first detected path in time) of a timeslot received by the LMU from the cell k that is closest in time to the start of the received timeslot of the TDD cell i.