| Source: | Lucent Technologies, Ericsson, Nokia |
|---------------|--------------------------------------|
| Title: | Revised CR010 (Rev2) to 25.215 |
| Document for: | Approval |

1. Introduction

During the RAN WG2 Ad Hoc on LCS (Sophia Antipolis; 25-26 November 1999), there was discussion on Layer 1 inter-system measurements for assisted GPS methods and it was concluded that WG1 needs to specify the inter-system timing. This is endorsed in the LS from RAN WG2 #9 to RAN WG1 #9 [1].

WG1 #9 AH17 agreed that the TS25.215-CR010 text originally presented in R1-99i03 should be in alignment with the latest version of TS25.305.

CR010 Revision 2 (25.215) is presented here to accord with the agreement made in WG1 #9 AH17.

2. References

[1] Tdoc R2-99J47: "Liaison on LCS"; RAN WG2 #9; 29 Nov – 3 Dec 1999.

3GPP/SMG Meeting #9 Dresden, Germany, 30 Nov - 3 Dec 1999

Document R1-99L09 e.g. for 3GPP use the format TP-99xxx or for SMG, use the format P-99-xxx

| | | | REQUE | | e see embedded help fi for instructions on how | | |
|--|--|---|--|--|---|---|------|
| | | 25.215 | CR 01 | 0r2 | Current Versio | on: V 3.0.0 | |
| GSM (AA.BB) or 3G | (AA.BBB) specificat | ion number ↑ | | ↑ CR numbe | r as allocated by MCC s | support team | |
| For submission t | eeting # here ↑ | for infor | | | strateg non-strateg | gic use of | nly) |
| Form Proposed chang (at least one should be m | le affects: | ion 2 for 3GPP and SMG | The latest version | - | ilable from: ftp://ftp.3gpp.or | g/Information/CR-Form | |
| Source: | Lucent Tech | nologies | | | Date: | 2 Dec 1999 | |
| <u>Subject:</u> | | <mark>s: 5.1.15 – UE G</mark> ell Frames for LC | | of Cell Fran | nes for LCS; 5.2 | .8 UTRAN GF | S |
| Work item: | TS 25.215 | | | | | | |
| Category:FA(only one categoryshall be markedCwith an X)D | Addition of f | nodification of fea | | | X X | Phase 2 Release 96 Release 97 Release 98 Release 99 Release 00 | X |
| <u>Reason for</u> change: | method. The | UE and UTRAN r requirement to r 299J47. These | measure the | se paramet | ters has been de | | S |
| Clauses affected | I: New cla | iuse | | | | | |
| affected: | Other 3G core Other GSM co specification MS test specification BSS test specification O&M specification | ons fications sifications | $ \begin{array}{c} \rightarrow \text{Li} \\ \hline \rightarrow \text{Li} \\ \hline \rightarrow \text{Li} \\ \hline \rightarrow \text{Li} \end{array} $ | st of CRs: st of CRs: st of CRs: st of CRs: st of CRs: st of CRs: | | | |
| Other comments: | | | | | | | |

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5.1.13 UE Rx-Tx time difference

| Definition | The difference in time between the UE uplink DPCCH/DPDCH frame transmission and the first significant path, of the downlink DPCH frame from the measured radio link. Measurement shall be made for each cell included in the active set. Note: The definition of "first significant path" needs further elaboration. |
|----------------|---|
| Applicable for | Connected Intra |
| Range/mapping | Always positive. |

5.1.14 UE GPS Timing of Cell Frames for LCS

| Definition | The timing between cell j and GPS Time Of Week. T _{UE-GPSj} is defined as the time of occurrence of a specified UTRAN event according to GPS time. The specified UTRAN event is the beginning of a particular frame (identified through its SFN) in the first significant multipath of the cell j CPICH, where cell j is a cell within the active set. |
|----------------|---|
| Applicable for | Connected Intra, Connected Inter |
| Range/mapping | <u>The resolution of T_{UE-GPS_i} is 1µS. The range is from 0 to 6.04×10¹¹ µS.</u> |

5.2.7 Round trip time

Note: The relation between this measurement and the TOA measurement defined by WG2 needs clarification.

| Definition | Round trip time (RTT), is defined as |
|---------------|---|
| | $RTT = T_{RX} - T_{TX}$, where |
| | T_{Tx} = The time of transmission of the beginning of a downlink DPCH frame to a UE. |
| | T_{RX} = The time of reception of the beginning (the first significant path) of the corresponding |
| | uplink DPCCH/DPDCH frame from the UE. |
| | Note: The definition of "first significant path" needs further elaboration. |
| | Measurement shall be possible on DPCH for each RL transmitted from an UTRAN access point |
| | and DPDCH/DPCCH for each RL received in the same UTRAN access point. |
| Range/mapping | |

5.2.8 UTRAN GPS Timing of Cell Frames for LCS

| Definition | The timing between cell j and GPS Time Of Week. T _{UTRAN-GPSj} is defined as the time of occurrence of a specified UTRAN event according to GPS time. The specified UTRAN event is the beginning of a particular frame (identified through its SFN) in the first significant multipath of the cell j CPICH, where cell j is a cell within the active set. |
|----------------|--|
| Applicable for | Connected Intra, Connected Inter |
| Range/mapping | <u>The resolution of $T_{UTRAN-GPS_j}$ is 1µS. The range is from 0 to 6.04×10¹¹ µS.</u> |