

TSG-RAN Meeting #14
Kyoto, Japan, 11 - 14, December, 2001

TSGRP#14(01) 0911

Title: Agreed CRs to TS 25.423

Source: TSG-RAN WG3

Agenda item: 8.3.3/8.3.4/9.4.3

RP Tdoc	R3 Tdoc	Spec	CR_Num	Rev	Release	CR_Subject	Cat	Cur_Ver	New_Ver	Workitem
RP-010911	R3-013669	25.423	485	1	Rel-4	Correction to SFN-SFN Observed Time Difference Measurement report mapping	F	4.2.0	4.3.0	LCS1-UEPos-lublur

CHANGE REQUEST

⌘ **25.423 CR 485** ⌘ rev **1** ⌘ 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 Core Network

Title: ⌘ Correction to SFN-SFN Observed Time Difference Measurement report mapping

Source: ⌘ Nokia

Work item code: ⌘ LCS1-UEPos-lublur

Date: ⌘ November 2001

Category: ⌘ **F**

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: ⌘ UTRAN SFN-SFN Observed time difference measurement for FDD mode of operation has been redefined to TS25.215 (Tdoc R1-011294 CR106r1). Measurement shall be performed to frame boundaries instead of slot boundaries. WG4 has aligned the report mapping of UTRAN SFN-SFN Observed Time Difference accordingly to TS25.133 (Tdoc R4-01409) as follow:

9.2.15.2 SFN-SFN observed time difference measurement report mapping

The SFN-SFN observed time difference reporting range is from -19200.0000 ... 19200.0000 chip.

In table 9.62 the mapping of measured quantity is defined. The range in the signalling may be larger than the guaranteed accuracy range.

Table 9.62

Reported value	Measured quantity value	Unit
----------------	-------------------------	------

SFN-SFN_TIME_00000	-19200.0000	□ SFN-SFN observed time difference < -19199.9375 chip
--------------------	-------------	-------------------------------------------------------

SFN-SFN_TIME_00001	-19199.9375	□ SFN-SFN observed time difference < -19199.8750 chip
--------------------	-------------	-------------------------------------------------------

... ..

SFN-SFN_TIME_614398	19199.8750	□ SFN-SFN observed time difference < 19199.9375 chip
---------------------	------------	------------------------------------------------------

SFN-SFN_TIME_614399	19199.9375	□ SFN-SFN observed time difference □ 19200.0000 chip
---------------------	------------	------------------------------------------------------

	In RNSAP <i>SFN-SFN Measurement Value Information</i> IE shall be corrected according to mapping table modification made to TS 25.133
Summary of change: ⌘	<p>IE Type and Reference for <i>SFN-SFN</i> IE corrected. Reported SFN-SFN Values for TDD and FDD mode of operation specified. Reported SFN-SFN Value for FDD mode of operation corrected according to mapping table modification made to TS 25.133.</p> <p>Reporting of reference cell Timeslot removed in FDD mode of operation. There is no use to report the reference cell Timeslot, since the UTRAN SFN-SFN Observed time difference measurement is always made at the beginning of one Primary CPICH frame i.e. TS0.</p> <p>Structure of <i>SFN-SFN Measurement Value Information</i> IE aligned with the NBAP i.e. the SFN IE and TS IE grouped to SFN-SFN Measurement Time Stamp IE group</p>
Consequences if not approved:	<p>⌘ If this CR is not approved, the report mapping for SFN-SFN Observed Time Difference Measurement is not aligned with the TS25.133</p> <p><u>Impact Analysis:</u></p> <p>Impact assessment towards the previous version of the specification (same release):</p> <p>This CR has isolated impact with the previous version of the specification because this CR corrects the report mapping of the measured SFN-SFN Observed Time Difference value for which the specification was incorrect.</p> <p>This CR has an impact under protocol and functional point of view.</p> <p>The impact can be considered isolated because the change affects one system function namely the SFN-SFN Observed Time Difference Measurements on Common Resources.</p>

Clauses affected:	⌘ 9.2.1.52B,9.2.1.52B1, 9.2.1.52C, 9.2.1.52D, 9.3.4									
Other specs affected:	<table border="0"> <tr> <td>⌘ <input checked="" type="checkbox"/></td> <td>Other core specifications</td> <td>⌘ TS 25.433 v4.2.1 CR545</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Test specifications</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td>O&M Specifications</td> <td></td> </tr> </table>	⌘ <input checked="" type="checkbox"/>	Other core specifications	⌘ TS 25.433 v4.2.1 CR545	<input type="checkbox"/>	Test specifications		<input type="checkbox"/>	O&M Specifications	
⌘ <input checked="" type="checkbox"/>	Other core specifications	⌘ TS 25.433 v4.2.1 CR545								
<input type="checkbox"/>	Test specifications									
<input type="checkbox"/>	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

9.2.1.52B SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SFN-SFN Change Limit	–O		INTEGER(1..16384,...)	Change of SFN-SFN value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted SFN-SFN Deviation Limit	O		INTEGER(1..16384,...)	Deviation the Predicted SFN-SFN from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

9.2.1.52B1 SFN-SFN Measurement Time Stamp

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<i>CHOICE Mode</i>				
>FDD				
>>SFN	<u>M</u>		<u>9.2.1.52A</u>	Indicates the SFN of the reference cell at which the measurement has been performed.
>TDD				
>>SFN	<u>M</u>		<u>9.2.1.52A</u>	Indicates the SFN of the reference cell at which the measurement has been performed.
>>Time Slot	<u>M</u>		<u>9.2.1.56</u>	Indicates the Time Slot of the reference cell at which this measurement has been performed.

9.2.1.52C SFN-SFN Measurement Value Information

The SFN-SFN Measurement Value Information IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements as well as other related information.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information		<i>1..<maxnoofMeasN Cell></i>		
>UTRAN Cell Identifier			9.2.1.71	
>SFN-SFN Value	M		9.2.1.52D IN INTEGER(-20480..20479)	
>SFN-SFN Quality	M		INTEGER(0..16383)	Indicates the standard deviation of the SFN-SFN measurements.
>SFN-SFN Drift Rate	M		INTEGER(-16383..16383)	Indicates the SFN-SFN drift rate in 1/16 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell.
>SFN-SFN Drift Rate Quality	M		INTEGER(0..16383)	Indicates the standard deviation of the SFN-SFN drift rate measurements.
>SFN-SFN Measurement Time Stamp	M		9.2.1.51B1	
>SFN	M		9.2.1.52A	Indicates the SFN at which this measurement has been performed.
>Timeslot	M		9.2.1.56	Indicates the Time Slot at which this measurement has been performed.
Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information		<i>0..<maxnoofMeasN Cell-1></i>		
>UTRAN Cell Identifier			9.2.1.71	

9.2.1.52D SFN-SFN Value

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Mode				
>FDD				
>>SFN-SFN	M		INTEGER(0..614399)	According to mapping in [23].
>TDD				
>>SFN-SFN	M		INTEGER(0..40961)	According to mapping in [24].

9.3.4 Information Elements Definitions

```

--*****
--
-- Information Element Definitions
--
--*****

```

. . . Partly Omitted . . .

```
SFNSFN-FDD ::= INTEGER(0..614399-20480..20479)
```

```
SFNSFN-TDD ::= INTEGER(0..40961)
```

```

GA-AccessPointPositionwithOptionalAltitude ::= SEQUENCE {
    geographicalCoordinate      GeographicalCoordinate,
    altitudeAndDirection        GA-AltitudeAndDirection OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { GA-AccessPointPositionwithOptionalAltitude-ExtIEs } } OPTIONAL,
    ...
}

```

```

GA-AccessPointPositionwithOptionalAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```
SFNSFNChangeLimit ::= INTEGER (1..16384)
```

```
SFNSFNDriftRate ::= INTEGER (-16383..16383)
```

```
SFNSFNDriftRateQuality ::= INTEGER (0..16383)
```

```

SFNSFNMeasurementThresholdInformation ::= SEQUENCE {
    sFNSFNChangeLimit          SFNSFNChangeLimit          OPTIONAL,
    predictedSFNSFNDeviationLimit PredictedSFNSFNDeviationLimit OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs } } OPTIONAL,
    ...
}

```

```

SFNSFNMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

SFNSFNMeasurementValueInformation ::= SEQUENCE {
    successfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation SEQUENCE (SIZE(1..maxNrOfMeasNCell)) OF
        SEQUENCE {
            uC-ID          UC-ID,
            sFNSFNValue    SFNSFNValue,
            sFNSFNQuality  SFNSFNQuality,
            sFNSFNDriftRate SFNSFNDriftRate,
            sFNSFNDriftRateQuality SFNSFNDriftRateQuality,

```

```

_____ sFNSFNTimeStampInformation SFNSFNTimeStampInformation,
_____ sFN SFN,
_____ timeSlot TimeSlot,
_____ iE-Extensions ProtocolExtensionContainer { {
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs} } OPTIONAL,
    ...
},
unsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
SEQUENCE {
    uC-ID UC-ID,
    iE-Extensions ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
ExtIEs} } OPTIONAL,
    ...
},
iE-Extensions ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs} } OPTIONAL,
    ...
}

SFNSFNMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFNSFNQuality ::= INTEGER (0..16383)

SFNSFNTimeStampInformation ::= CHOICE {
_____ sFNSFNTimeStamp-FDD SFN,
_____ sFNSFNTimeStamp-TDD SFNSFNTimeStamp-TDD,
_____ ...
}

SFNSFNTimeStamp-TDD ::= SEQUENCE {
_____ sFN SFN,
_____ timeSlot TimeSlot,
_____ iE-Extensions ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs} OPTIONAL,
_____ ...
}

SFNSFNTimeStamp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
_____ ...

```

```
}  
  
SFNSFNValue ::= CHOICE {  
    sFNFSN-FDD      SFNSFN-FDD,  
    sFNFSN-TDD      SFNSFN-TDD,  
    ...  
}
```