

**TSG-RAN Meeting #15  
Cheju, Korea, 5 - 8 March 2002**

**TSGRP#15(02) 0181**

**Title: Agreed CRs to TS 25.423**

**Source: TSG-RAN WG3**

**Agenda item: 7.3.3/7.3.4**

RP_Num	Tdoc_Num	Specification	CR_Num	Revision Num	3G_Release	CR_Subject	CR_Category	Cur_Ver_Num	Workitem
RP-020181	R3-020658	25.423	545	1	Rel-4	Corrections to the Information Exchange Initiation procedure	F	4.3.0	LCS1-UEPos-lublur
RP-020181	R3-020671	25.423	546	1	Rel-4	Correction to UE position measurements quality and threshold information	F	4.3.0	LCS1-UEPos-lublur
RP-020181	R3-020661	25.423	547	1	Rel-4	Correction to UE position measurements change and deviation limit formulas	F	4.3.0	LCS1-UEPos-lublur
RP-020181	R3-020385	25.423	552		Rel-4	Re-ordering of cause values	F	4.3.0	TEI
RP-020181	R3-020414	25.423	561		Rel-4	Clarification to the Allowed Rate Information in RL Setup/Addition/Reconfiguration response and RL Reconfiguration Ready messages.	F	4.3.0	TEI
RP-020181	R3-020776	25.423	562	1	Rel-4	Modification of the T_ultran-gps length	F	4.3.0	TEI
RP-020181	R3-020445	25.423	567		Rel-4	Amendment of the COMMON MEASUREMENT INITIATION REQUEST message	F	4.3.0	TEI
RP-020181	R3-020768	25.423	576	2	Rel-4	Load Value Extension	F	4.3.0	RANimp-RRMopt
RP-020181	R3-020664	25.423	588		Rel-4	The correction on duplicated allocatioin of protocolIE-ID	F	4.3.0	TEI
RP-020181	R3-020676	25.423	589		Rel-4	Enhanced DSCH and syntax error ASN.1 correction	F	4.3.0	TEI
RP-020181	R3-020806	25.423	596	1	Rel-4	Introduction of ellipses for IPDL parameters	F	4.3.0	TEI

Orlando, USA, 18<sup>th</sup> – 22<sup>nd</sup> February 2002

CR-Form-v3

**CHANGE REQUEST**⌘ **25.423 CR 545** ⌘ rev **1** ⌘ Current version: **4.3.0** ⌘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  Core Network 

<b>Title:</b>	⌘ Corrections to the Information Exchange Initiation procedure	
<b>Source:</b>	⌘ R-WG3	
<b>Work item code:</b>	⌘ LCS1-UEPos-lublur	<b>Date:</b> ⌘ February 2002
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b> ⌘ 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: ⌘

1) With the Information Exchange Initiation procedure RNC<sub>1</sub> can request information from the RNC<sub>2</sub> either 'On Demand', 'Periodic' or 'On Modification'. If the Information Report Characteristics IE is set to 'On Modification' and the Information Type IE is set to 'GPS Information', the RNC<sub>1</sub> must include the Information Threshold IE to the Information Exchange Initiation message, although there is no trigger value for the GPS Information. The Information Threshold IE (9.2.1.31C) should be changed to the optional IE and it should be used only if the DGPS corrections are requested.

2) If the RNC<sub>2</sub> was able to initiate the information provision requested by the RNC<sub>1</sub>, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the same Information Exchange ID that was included in the INFORMATION EXCHANGE REQUEST message. If the Requested Data Value IE is included in the INFORMATION EXCHANGE INITIATION RESPONSE message, it shall include at least one IE. As the *Requested Data Value* IE may not be reported in the *INFORMATION EXCHANGE RESPONSE* when defining future report characteristics types, the *Information Exchange Object Type in INFORMATION EXCHANGE RESPONSE* is defined as optional

3) According to the 3GPP TS 25.331 SRNC must be able to send the UE positioning GPS almanac IE to the UE. The UE positioning GPS almanac IE contains a reduced-precision subset of the ephemeris and clock correction parameters. With the Information Exchange Initiation elementary procedure the RNC<sub>1</sub> can requests GPS Information from the RNC<sub>2</sub>. The current GPS almanac IE (9.2.1.30G) includes all the required ephemeris and clock correction parameters which will be needed to the UE positioning GPS almanac IE except:

- SV Global health (optional)
- DataID

These IEs shall be included to the GPS Almanac IE (9.2.1.30G).

The SV Global health IE enables GPS time recovery and possibly extended GPS correlation intervals. This information is composed of the sequence of all non-parity data bits contained in words 3-10 of page 25 of subframe 4 of the GPS navigation message followed by the sequence of all non-parity bits contained in words 3-10 of page 25 of subframe 5 of the GPS navigation message. The following GPS navigation message fields are excluded when constructing these sequences: "Data ID", "SV (Page) ID", and "t".  
DataID field contained in the indicated subframe, word 3, most significant 2 bits, as defined by ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".

**Summary of change:** ⌘ Rev1

Spelling mistake in Information Exchange Initiation procedure message corrected. Abnormal section 8.5.6.4 updated to handle the RNC<sub>2</sub> behaviour, when the *Information Report Characteristics* IE is set to 'On Modification', and the *Information Type Item* IE is set to 'DGPS Corrections', but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message. Corrections are highlighted with yellow colour.

Rev 0

In principle agreed in R3#26 and implemented to correct version of specification

Second version (no Cr number attached)

This Cr corrects following three errors mentioned below:

- 1) The presence of *Information Exchange Object Type* IE in the INFORMATION EXCHANGE RESPONSE message kept as optional. In the procedural it is clarified that "When the *Report Characteristics* IE is set to "On-Demand", or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the requested data." With this definition we keep to door open for future extensions for report characteristics types.
- 2) The sentence " If the *Requested Data Value* IE is included in the INFORMATION EXCHANGE INITIATION RESPONSE message, it shall include at least one IE" removed from chapter 8.2.26.2 and this information is added for the IE description for *Requested Data Value* IE.
- 3) IE type and reference for Data ID IE changed to INTEGER (0..3)
- 4) SV global heath IE in GPS Almanac defined as optional
- 5) The ASN.1 description for SV Global heath IE aligned with tabular

First version (no Cr number attached)

- 1) The presence of Information Threshold IE (9.2.1.31C) changed to the optional
- 2) The presence of *Information Exchange Object Type* IE in the INFORMATION EXCHANGE RESPONSE message changed to the optional
- 3) Data ID and SV Global Health added as mandatory IEs in Satelite information of GPS Almanac IE (9.2.1.30G).

**Consequences if not approved:**

- ⌘ If this CR is not approved, identified three errors/ambiguities occurs there in the specification and the Information Exchange Initiation procedure is not properly specified (1 and 2) and it is not aligned with TS25.331 (3).

Impact Analysis:

Impact assessment towards the previous version of the specification (same release):

This CR has isolated impact with the previous version of the specification because this CR corrects the specification for Information Exchange Initiation procedure for which the specification is ambiguous. It also aligns the specification with TS25.331.

This CR has an impact under protocol and functional point of view.

The impact can be considered isolated because the change affects one system function namely Information Exchange.

<b>Clauses affected:</b>	⌘	8.5.6, 9.1.50, 9.2.1.30G, 9.2.1.31C, 9.2.1.48A, 9.3.3 and 9.3.4		
<b>Other specs affected:</b>	⌘	<input checked="" type="checkbox"/> Other core specifications	⌘	TS 25.433 v. 4.3.0 CR 585r1
		<input type="checkbox"/> Test specifications		
		<input type="checkbox"/> O&M Specifications		
<b>Other comments:</b>	⌘			

### 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](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.

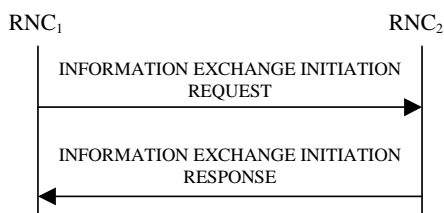
## 8.5.6 Information Exchange Initiation

### 8.5.6.1 General

This procedure is used by a RNC to request the initiation of an information exchange with another RNC.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

### 8.5.6.2 Successful Operation



**Figure 30F: Information Exchange Initiation procedure, Successful Operation**

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from RNC<sub>1</sub> to RNC<sub>2</sub>.

Upon reception, the RNC<sub>2</sub> shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

#### Information Report Characteristics:

The *Information Report Characteristics* IE indicates how the reporting of the information shall be performed.

If the *Information Report Characteristics* IE is set to 'On-Demand', the RNC<sub>2</sub> shall report the requested information immediately.

If the *Information Report Characteristics* IE is set to 'Periodic', the RNC<sub>2</sub> shall periodically initiate the Information Reporting procedure for all the requested information, with the requested report frequency.

If the *Information Report Characteristics* IE is set to 'On-Modification', the RNC<sub>2</sub> shall report the requested information immediately and then shall initiate the Information Reporting procedure in accordance to the following conditions:

- If the *Information Type Item* IE is set to 'IPDL Parameters', the RNC<sub>2</sub> shall initiate the Information Reporting procedure when any change in the parameters occurs.
- If the *Information Type Item* IE is set to 'DGPS Corrections', the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE or a change has occurred in the IODE.
- If the *Information Type Item* IE is set to 'GPS Information' and the *GPS Information Item* IE includes 'GPS Navigation Model & Recovery Assistance', the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific GPS Information Type when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *SatID* IEs.
- If the *Information Type Item* IE is set to 'GPS Information' and the *GPS Information Item* IE includes 'GPS Ionospheric Model', the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific GPS Information Type when any change has occurred.
- If the *Information Type Item* IE is set to 'GPS Information' and the *GPS Information Item* IE includes 'GPS UTC Model', the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific GPS Information Type when a change has occurred in the *t\_ot* parameter.

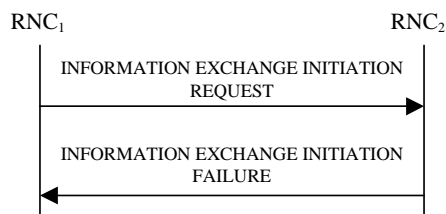
- If the *Information Type Item* IE is set to 'GPS Information' and the *GPS Information Item* IE includes 'GPS Almanac', the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific GPS Information Type when any change has occurred.
- If the *Information Type Item* IE is set to 'GPS Information' and the *GPS Information Item* IE includes 'GPS Real-Time Integrity', the RNC<sub>2</sub> shall initiate the Information Reporting procedure for this specific GPS Information Type when any change has occurred.

#### Response message:

If the RNC<sub>2</sub> was able to determine the information requested by the RNC<sub>1</sub>, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the same Information Exchange ID that was included in the INFORMATION EXCHANGE REQUEST message. When the *Report Characteristics IE* is set to "On-Demand" or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the requested data.

~~If the *Requested Data Value IE* is included in the INFORMATION EXCHANGE INITIATION RESPONSE message, it shall include at least one IE.~~

### 8.5.6.3 Unsuccessful Operation



**Figure 30G: Information Exchange Initiation procedure, Unsuccessful Operation**

If the requested Information Type received in the *Information Type IE* indicates a type of information that RNC<sub>2</sub> cannot provide, the RNC<sub>2</sub> shall regard the Information Exchange Initiation procedure as failed.

If the requested information provision cannot be carried out, the RNC<sub>2</sub> shall send the INFORMATION EXCHANGE INITIATION FAILURE message. The message shall include the same Information Exchange ID that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause IE* set to an appropriate value.

Typical cause values are as follows:

#### Radio Network Layer Cause:

Information temporarily not available.

Information Provision not supported for the object.

### 8.5.6.4 Abnormal Conditions

- If the *Information Report Characteristics IE* is set to 'On Modification', and the *Information Type Item IE* is set to 'DGPS Corrections', but the *Information Threshold IE* is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the RNC<sub>2</sub> shall regard the Information Exchange Initiation procedure as failed.



## 9.1.50 INFORMATION EXCHANGE INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	
Information Exchange ID	M		9.2.1.31A		YES	ignore
CHOICE <i>Information Exchange Object Type</i>	<u>O</u> M		9.2.1.31B		YES	ignore
> <i>Cell</i>					-	
>>Requested Data Value	M		9.2.1.48A		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore



## 9.2.1.30G GPS Almanac

This IE provides the information regarding the GPS Almanac. For further details on the meaning of parameters, see [30].

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
WN <sub>a</sub>	M		Bit string(8)	
<b>Satellite Almanac Information</b>	M	1,,<MaxNo Sat>		
<a href="#">&gt;DataID</a>	<a href="#">M</a>		<a href="#">INTEGER (0..3)</a>	
>SatID	M		SAT ID 9.2.1.50A	Satellite ID
>e	M		Bit string(16)	
>t <sub>oa</sub>	M		Bit string(8)	
>δl	M		Bit string(16)	
>OMEGADOT	M		Bit string(16)	
>SV Health	M		Bit string(8)	
>A <sup>1/2</sup>	M		Bit string(24)	
>OMEGA <sub>0</sub>	M		Bit string(24)	
>M <sub>0</sub>	M		Bit string(24)	
>ω	M		Bit string(24)	
>af <sub>0</sub>	M		Bit string(11)	
>af <sub>1</sub>	M		Bit string(11)	
<a href="#">SV Global Health</a>	<a href="#">O</a>		<a href="#">Bit string(364)</a>	

Range Bound	Explanation
MaxNoSat	Maximum number of satellites for which information can be provided

### 9.2.1.31C Information Report Characteristics

The information report characteristics define how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE <i>Information Report Characteristics Type</i>				
> <i>OnDemand</i>			NULL	
> <i>Periodic</i>				
>>Information Report Periodicity	M		ENUMERATED (1min...1hr, ...) step 1min, (1hr...24hr, ...) step 1hr, ...	The frequency with which the RNS shall send information reports.
> <i>On Modification</i>				
>>Information Threshold	<a href="#">OM</a>		9.2.1.31D	

### 9.2.1.48A Requested Data Value

The Requested Data Value contains the relevant data concerning the ongoing information exchange. [Requested Data Value IE shall include at least one of the following IE.](#)

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UTRAN Access Point Position with Altitude	O		9.2.1.75	
IPDL Parameters	O		9.2.1.31F	
DGPS Corrections	O		9.2.1.19B	
GPS Navigation Model and Time Recovery	O		9.2.1.30I	
GPS Ionospheric Model	O		9.2.1.30H	
GPS UTC Model	O		9.2.1.30L	
GPS Almanac	O		9.2.1.30G	
GPS Real-Time Integrity	O		9.2.1.30J	
GPS RX Pos	O		9.2.1.30K	
SFN-SFN Measurement Reference Point Position	O		9.2.1.74	

### 9.3.3 PDU Definitions

... Partly omitted ...

```

-- *****
--
-- INFORMATION EXCHANGE INITIATION RESPONSE
--
-- *****

InformationExchangeInitiationResponse ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container  {{InformationExchangeInitiationResponse-IEs}},
    protocolExtensions  ProtocolExtensionContainer  {{InformationExchangeInitiationResponse-Extensions}}  OPTIONAL,
    ...
}

InformationExchangeInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID      id-InformationExchangeID          CRITICALITY ignore          TYPE      InformationExchangeID          PRESENCE mandatory
    }|
    { ID      id-InformationExchangeObjectType-InfEx-Rsp  CRITICALITY ignore          TYPE      InformationExchangeObjectType-InfEx-Rsp  PRESENCE
    | optionalmandatory }|
    { ID      id-CriticalityDiagnostics          CRITICALITY ignore          TYPE      CriticalityDiagnostics          PRESENCE optional },
    ...
}

InformationExchangeInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
    cell          Cell-InfEx-Rsp,
    ...
}

Cell-InfEx-Rsp ::= SEQUENCE {
    requestedDataValue          RequestedDataValue,
    iE-Extensions              ProtocolExtensionContainer  { { CellItem-InfEx-Rsp-ExtIEs } }  OPTIONAL,
    ...
}

CellItem-InfEx-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

... Partly omitted ...

## 9.3.4 Information Element Definitions

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

... Partly omitted ...

```
-- D
DATA-ID ::= INTEGER (0..3)

DCH-FDD-Information ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem

DCH-FDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator    PayloadCRC-PresenceIndicator,
    ul-FP-Mode                      UL-FP-Mode,
    toAWS                            ToAWS,
    toAWE                            ToAWE,
    dCH-SpecificInformationList     DCH-Specific-FDD-InformationList,
    iE-Extensions                   ProtocolExtensionContainer { {DCH-FDD-InformationItem-ExtIEs} } OPTIONAL,
    ...
}
```

... Partly omitted ...

```
-- G

GapLength ::= INTEGER (1..14)
-- Unit Slot

GapDuration ::= INTEGER (1..144,...)
-- Unit Frame

GA-Cell ::= SEQUENCE (SIZE (1..maxNrOfPoints)) OF
    SEQUENCE {
        cell-GAIgeographicalCoordinate    GeographicalCoordinate,
        iE-Extensions                   ProtocolExtensionContainer { {GA-Cell-ExtIEs} } OPTIONAL,
        ...
    }

GA-Cell-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```

GA-CellAdditionalShapes ::= CHOICE {
    pointWithUncertainty                GA-PointWithUnCertainty,
    pointWithUncertaintyEllipse         GA-PointWithUnCertaintyEllipse,
    pointWithAltitude                  GA-PointWithAltitude,
    pointWithAltitudeAndUncertaintyEllipsoid GA-PointWithAltitudeAndUncertaintyEllipsoid,
    ellipsoidArc                       GA-EllipsoidArc,
    ...
}

GA-AltitudeAndDirection ::= SEQUENCE {
    directionOfAltitude    ENUMERATED {height, depth},
    altitude               INTEGER (0..32767),
    ...
}

GA-EllipsoidArc ::= SEQUENCE {
    geographicalCoordinates    GeographicalCoordinate,
    innerRadius               INTEGER (0..65535),
    uncertaintyRadius         INTEGER (0..127),
    offsetAngle               INTEGER (0..179),
    includedAngle             INTEGER (0..179),
    confidence                 INTEGER (0..127),
    iE-Extensions             ProtocolExtensionContainer { { GA-EllipsoidArc-ExtIEs } } OPTIONAL,
    ...
}

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

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

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

GA-PointWithAltitudeAndUncertaintyEllipsoid ::= SEQUENCE {
    geographicalCoordinates    GeographicalCoordinate,
    altitudeAndDirection       GA-AltitudeAndDirection,
    uncertaintyEllipse         GA-UncertaintyEllipse,
    uncertaintyAltitude        INTEGER (0..127),
    confidence                  INTEGER (0..127),
    iE-Extensions              ProtocolExtensionContainer { { GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs } } OPTIONAL,
    ...
}

```

```

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

GA-PointWithUnCertaintyEllipse ::= SEQUENCE {
    geographicalCoordinates      GeographicalCoordinate,
    uncertaintyEllipse           GA-UncertaintyEllipse,
    confidence                   INTEGER (0..127),
    iE-Extensions                ProtocolExtensionContainer { { GA-PointWithUnCertaintyEllipse-ExtIEs } } OPTIONAL,
    ...
}

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

GA-UncertaintyEllipse ::= SEQUENCE {
    uncertaintySemi-major        INTEGER (0..127),
    uncertaintySemi-minor        INTEGER (0..127),
    orientationOfMajorAxis       INTEGER (0..179),
    ...
}

GA-PointWithUnCertainty ::= SEQUENCE {
    geographicalCoordinates      GeographicalCoordinate,
    iE-Extensions                ProtocolExtensionContainer { {GA-PointWithUnCertainty-ExtIEs} } OPTIONAL,
    uncertaintyCode              INTEGER (0..127)
}

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

GA-AccessPointPosition ::= SEQUENCE {
    geographicalCoordinate       GeographicalCoordinate,
    iE-Extensions                ProtocolExtensionContainer { {GA-AccessPoint-ExtIEs} } OPTIONAL,
    ...
}

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

GeographicalCoordinate ::= SEQUENCE {
    latitudeSign                 ENUMERATED { north, south },
    latitude                     INTEGER (0..8388607),
    longitude                     INTEGER (-8388608..8388607),
    iE-Extensions                ProtocolExtensionContainer { {GeographicalCoordinate-ExtIEs} } OPTIONAL,
    ...
}

```

```

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

GPS-Almanac ::= SEQUENCE {
    wna-alm BIT STRING (SIZE (8)),
    satellite-Almanac-Information SEQUENCE (SIZE (1..maxNoSat)) OF
        SEQUENCE {
            data-ID DATA-ID,
            sAT-ID SAT-ID,
            gps-e-alm BIT STRING (SIZE (16)),
            gps-toa-alm BIT STRING (SIZE (8)),
            gps-delta-I-alm BIT STRING (SIZE (16)),
            omegadot-alm BIT STRING (SIZE (16)),
            svhealth-alm BIT STRING (SIZE (8)),
            gps-a-sqrt-alm BIT STRING (SIZE (24)),
            omegazero-alm BIT STRING (SIZE (24)),
            m-zero-alm BIT STRING (SIZE (24)),
            gps-omega-alm BIT STRING (SIZE (24)),
            gps-af-zero-alm BIT STRING (SIZE (11)),
            gps-af-one-alm BIT STRING (SIZE (11)),
            iE-Extensions ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtIEs} } OPTIONAL,
            ...
        },
    sVGlobalHealth-alm BIT STRING (SIZE (364)) OPTIONAL,
    iE-Extensions ProtocolExtensionContainer { { GPS-Almanac-ExtIEs} } OPTIONAL,
    ...
}

Satellite-Almanac-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

GPS-Almanac-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

... Partly omitted ...

-- 0

OnModification ::= SEQUENCE {
    measurementThreshold MeasurementThreshold,
    iE-Extensions ProtocolExtensionContainer { {OnModification-ExtIEs} } OPTIONAL,
    ...
}

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

```



```
OnModificationInformation ::= SEQUENCE {
|   informationThreshold      InformationThreshold OPTIONAL,
   iE-Extensions             ProtocolExtensionContainer { {OnModificationInformation-ExtIEs} } OPTIONAL,
   ...
}

OnModificationInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   ...
}
```

## CHANGE REQUEST

⌘ **25.423 CR 546** ⌘ rev **1** ⌘ Current version: **4.3.0** ⌘

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  Core Network

**Title:** ⌘ Correction to UE position measurements quality and threshold information

**Source:** ⌘ R-WG3

**Work item code:** ⌘ LCS1-UEPos-lublur

**Date:** ⌘ February 2002

**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:** ⌘ The ranges defined for UE position measurement Deviation Limits and Change limits corresponding to distances in the order of ten kilometers for SFN-SFN otd and hundreds of kilometers for  $T_{\text{UTRAN-GPS}}$  cannot be tolerated in UE positioning.

### SFN-SFN Measurement Threshold Information:

The range of SFN-SFN Change Limit and SFN-SFN Deviation Limit is decreased to INTEGER(1..256) as this corresponds to a maximum range of about 1200 m with a resolution of 1/16 chip.

### $T_{\text{Utran-GPS}}$ Measurement Threshold Information:

The range of  $T_{\text{Utran-GPS}}$  Change Limit and  $T_{\text{Utran-GPS}}$  Deviation Limit is decreased to INTEGER(1..256) as this corresponds to a maximum range of about 1200 m with a resolution of 1/16 chip.

Also the ranges defined for UE position measurement quality information (std) corresponding to distances in the order of ten kilometers for SFN-SFN otd and hundreds of kilometers for  $T_{\text{UTRAN-GPS}}$  are not applicable for UE positioning

### SFN-SFN Measurement Value Information

The range of SFN-SFN Quality is decreased to INTEGER(0..255) as with a resolution of 1/16 chip this corresponds to a maximum range of approx. 1200 m which for the purposes of UE positioning is enough.

### $T_{\text{UTRAN-GPS}}$ Measurement Value Information:

The range of  $T_{\text{UTRAN-GPS}}$  Quality is decreased to INTEGER(0..255) which corresponds to a maximum range of approx. 1200 m with a resolution of 1/16 chip. For UE positioning this is enough.

<b>Summary of change:</b>	<p>⌘ <u>Rev 1</u></p> <p>Following modifications are made:</p> <ol style="list-style-type: none"> <li>1. Otd (observed time difference) spelt out</li> <li>2. Units used for SFN-SFN and <math>T_{Utran-GPS}</math> change limit, predicted change limit, drift rate and quality added for ASN.1 description.</li> </ol> <p><u>Rev0</u></p> <p>IE Type and reference for <i>SFN-SFN Change Limit</i> IE and <i>Predicted SFN-SFN Deviation Limit</i> IE changed to INTEGER(1..256).</p> <p>IE Type and reference for <i>SFN-SFN Quality</i> IE changed to INTEGER(0..255).</p> <p>IE Type and reference for <math>T_{Utran-GPS}</math> Change Limit IE and Predicted <math>T_{Utran-GPS}</math> Deviation Limit IE changed to INTEGER(1..256).</p> <p>IE Type and reference for <math>T_{Utran-GPS}</math> Quality IE changed to INTEGER(0..255).</p>
<b>Consequences if not approved:</b>	<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 quality and threshold figures for UE position measurements.</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 measurements on common resources.</p>

<b>Clauses affected:</b>	⌘ 9.2.1.52B, 9.2.1.52C, 9.2.1.59C, 9.2.1.59D and 9.3.4									
<b>Other specs affected:</b>	<table border="0"> <tr> <td style="vertical-align: top;">⌘</td> <td><input checked="" type="checkbox"/> Other core specifications</td> <td style="vertical-align: top;">⌘ TS 25.433 v. 4.3.0 CR 586r1</td> </tr> <tr> <td style="vertical-align: top;">⌘</td> <td><input type="checkbox"/> Test specifications</td> <td></td> </tr> <tr> <td style="vertical-align: top;">⌘</td> <td><input type="checkbox"/> O&amp;M Specifications</td> <td></td> </tr> </table>	⌘	<input checked="" type="checkbox"/> Other core specifications	⌘ TS 25.433 v. 4.3.0 CR 586r1	⌘	<input type="checkbox"/> Test specifications		⌘	<input type="checkbox"/> O&M Specifications	
⌘	<input checked="" type="checkbox"/> Other core specifications	⌘ TS 25.433 v. 4.3.0 CR 586r1								
⌘	<input type="checkbox"/> Test specifications									
⌘	<input type="checkbox"/> O&M Specifications									
<b>Other comments:</b>	⌘									

**How to create CRs using this form:**

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### 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. <del>256</del> <del>16384</del> , ...)	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. <del>256</del> <del>16384</del> , ...)	Deviation the Predicted SFN-SFN from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

### 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
<b>Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information</b>		<i>1..&lt;maxnoofMeasN Cell&gt;</i>		
>UTRAN Cell Identifier			9.2.1.71	
>SFN-SFN Value	M		9.2.1.77	
>SFN-SFN Quality	O		INTEGER(0. <del>255</del> <del>16383</del> )	Indicates the standard deviation of the SFN-SFN <i>otd (observed time difference)</i> measurements <i>in 1/16 chip</i> .
>SFN-SFN Drift Rate	M		INTEGER(-100..100)	Indicates the SFN-SFN drift rate in 1/256 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. .100)	Indicates the standard deviation of the SFN-SFN drift rate measurements <i>in 1/256 chip per second</i> .
>SFN-SFN Measurement Time Stamp	M		9.2.1.76	
<b>Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information</b>		<i>0..&lt;maxnoofMeasN Cell-1&gt;</i>		
>UTRAN Cell Identifier			9.2.1.71	

Range bound	Explanation
<i>MaxnoofMeasNCell</i>	Maximum number of neighbouring cells on which measurements can be performed.

### 9.2.1.59C $T_{\text{UTRAN-GPS}}$ Measurement Threshold Information

The  $T_{\text{UTRAN-GPS}}$  Measurement Threshold Information defines the related thresholds for UTRAN GPS Timing of Cell Frame for LCS measurements shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
$T_{\text{UTRAN-GPS}}$ Change Limit			INTEGER(1. <a href="#">.256<sup>2^20</sup>,...</a> )	Change of $T_{\text{UTRAN-GPS}}$ value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted $T_{\text{UTRAN-GPS}}$ Deviation Limit			INTEGER(1. <a href="#">.256<sup>2^20</sup>,...</a> )	Deviation of the Predicted $T_{\text{UTRAN-GPS}}$ from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

### 9.2.1.59D $T_{\text{UTRAN-GPS}}$ Measurement Value Information

The  $T_{\text{UTRAN-GPS}}$  *Measurement Value Information* IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frame for LCS measurements.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
$T_{\text{UTRAN-GPS}}$	M		INTEGER(0. .3715891199 9999)	Indicates the UTRAN GPS Timing of Cell Frame for LCS. According to mapping in [23] and [24]
$T_{\text{UTRAN-GPS}}$ Quality	M		INTEGER(0. <a href="#">.255<sup>2^20-1}</sup></a> )	Indicates the standard deviation of the $T_{\text{UTRAN-GPS}}$ measurements <a href="#">in 1/16 chip</a> .
$T_{\text{UTRAN-GPS}}$ Drift Rate	M		INTEGER(- 50..50)	Indicates the $T_{\text{UTRAN-GPS}}$ drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock.
$T_{\text{UTRAN-GPS}}$ Drift Rate Quality	M		INTEGER(0. .50)	Indicates the standard deviation of the $T_{\text{UTRAN-GPS}}$ drift rate measurements <a href="#">in 1/256 chip per second</a> .

## 9.3.4 Information Element Definitions

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

... Partly omitted ...

```
-- P
```

... Partly omitted ...

```
Pre-emptionVulnerability ::= ENUMERATED {  
    not-pre-emptable,  
    pre-emptable  
}
```

```
PredictedSFNSFNDeviationLimit ::= INTEGER (1..25616384)  
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
```

```
PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..2561048576)  
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
```

```
PrimaryCPICH-Power ::= INTEGER (-100..500)  
-- step 0.1 (Range -10.0..50.0) Unit is dBm
```

```
PrimaryCPICH-EcNo ::= INTEGER (-30..30)
```

... Partly omitted ...

```
-- S
```

**... Partly omitted ...**

```
SFNSFNChangeLimit ::= INTEGER (1..25616384)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
```

```
SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s
```

```
SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s
```

```
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          OPTIONAL,
        sFNSFNDriftRate SFNSFNDriftRate,
        sFNSFNDriftRateQuality SFNSFNDriftRateQuality,
        sFNSFNTimeStampInformation SFNSFNTimeStampInformation,
        iE-Extensions  ProtocolExtensionContainer { {
SuccessfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs} }
OPTIONAL,
        ...
    },
    unsuccessfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation SEQUENCE
(SIZE(0..maxNrOfMeasNCell-1)) OF
    SEQUENCE {
        uC-ID          UC-ID,
        iE-Extensions  ProtocolExtensionContainer { {
UnsuccessfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs} }
OPTIONAL,
        ...
    },
    iE-Extensions  ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs}
}
OPTIONAL,
    ...
}
```

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

```
SuccessfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-
PROTOCOL-EXTENSION ::= {
    ...
}
```

```
UnsuccessfulNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-
PROTOCOL-EXTENSION ::= {
    ...
}
```

```
SFNSFNQuality ::= INTEGER (0..25516383)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip
```

```
SFNSFNTimeStampInformation ::= CHOICE {
```

```
sFNSFNTimeStamp-FDD      SFN,  
sFNSFNTimeStamp-TDD     SFNSFNTimeStamp-TDD,  
...  
}
```

... Partly omitted ...



```
-- T
```

### ... Partly omitted ...

```
TUTRANGPS ::= INTEGER (0..37158911999999)

TUTRANGPSChangeLimit ::= INTEGER (1..2561048576)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip

TUTRANGPSDriftRate ::= INTEGER (-50..50)
-- Unit chip/s, Step 1/256 chip/s, Range -50/256..+50/256 chip/s

TUTRANGPSDriftRateQuality ::= INTEGER (0..50)
-- Unit chip/s, Step 1/256 chip/s, Range 0..50/256 chip/s

TUTRANGPSAccuracyClass ::= ENUMERATED {
    accuracy-class-A,
    accuracy-class-B,
    accuracy-class-C,
    ...
}

TUTRANGPSMeasurementThresholdInformation ::= SEQUENCE {
    tUTRANGPSChangeLimit          TUTRANGPSChangeLimit          OPTIONAL,
    predictedTUTRANGPSDeviationLimit PredictedTUTRANGPSDeviationLimit OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { {
TUTRANGPSMeasurementThresholdInformation-ExtIEs} } OPTIONAL,
    ...
}

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

TUTRANGPSMeasurementValueInformation ::= SEQUENCE {
    tUTRANGPS          TUTRANGPS,
    tUTRANGPSQuality   TUTRANGPSQuality,
    tUTRANGPSDriftRate TUTRANGPSDriftRate,
    tUTRANGPSDriftRateQuality TUTRANGPSDriftRateQuality,
    iEe-Extensions    ProtocolExtensionContainer { {
TUTRANGPSMeasurementValueInformationItem-ExtIEs} } OPTIONAL,
    ...
}

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

TUTRANGPSQuality ::= INTEGER (0..2551048575)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip

TransportBearerID ::= INTEGER (0..4095)
```

Orlando, USA, 18<sup>th</sup> – 22<sup>nd</sup> February 2002

CR-Form-v3

**CHANGE REQUEST**⌘ **25.423 CR 547** ⌘ rev **1** ⌘ Current version: **4.3.0** ⌘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  Core Network **Title:** ⌘ Correction to UE position measurements change and deviation limit formulas**Source:** ⌘ R-WG3**Work item code:** ⌘ LCS1-UEPos-lublur**Date:** ⌘ February 2002**Category:** ⌘ **F****Release:** ⌘ REL-4Use one of the following categories:

- F** (essential correction)
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- B** (Addition of feature),
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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:** ⌘ Rev 1

Calculation of drift, based on the reported drift rate with unit chip/s (not converting to ppm) corrected

During the some meetings ago the reported drift rate a was defined to be reported as a resolution of 1/256 chip/s. This will result of calculating the drift for  $T_{\text{Utran-GPS}}$  and SFN-SFN otd (FDD) as  $(a/16) * ((SFN_n - SFN_{n-1}) \bmod 4096)/100$ ,  $a/16 = 1/16$  chip/s and the SFN need to be divided with 100 due the fact that there are 100 radio frames in one second. For SFN-SFN otd (TDD) the drift is calculated as  $(a/16)*(15*(SFN_n - SFN_{n-1}) \bmod 4096 + (TS_n - TS_{n-1}))/1500$ ,  $a = 1/16$  chip/s and division 1500 comes from the fact that there are 1500 slots in one second

Rev 0

During the R3#26 meeting formulas for UE Position measurement change and deviation limits were discussed. Following correction proposals were noted:

- it shall be clarified that for the computation as described for the SFN-SFN measurement and  $T_{\text{Utran-GPS}}$  measurement works as an input with interface C (25.302)

- as the SFN-SFN otd measurement was changed to be measured to frame boundaries instead of slot boundaries, formulas for FDD mode operation need to be redefined. This will result two formulas (one for TDD and one for FDD) for calculating SFN-SFN change limit and Predicted SFN-SFN Deviation Limit

Additionally in this CR it is clarified that reported drift rate values in the predicted deviation limits formulas has to be expressed in ppms in the formula.

	Also the calculation of value $F_n$ =deviation of the last measurement result from the predicted value is made simpler in the predicted deviation limit formulas.
<b>Summary of change:</b>	Formulas for calculating change limits and predicted deviation limits for UE position measurements ( $T_{\text{ultra-n-GPS}}$ and SFN-SFN otd) are corrected.
<b>Consequences if not approved:</b>	<p><b>Impact Analysis:</b></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 formulas to be used in reporting criteria evaluation phase for calculating whether the set change limit or deviation limit by Common Measurement Initiation procedure has been exceeded.</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 measurements on common resources.</p>

<b>Clauses affected:</b>	8.5.2									
<b>Other specs affected:</b>	<table border="0"> <tr> <td><input checked="" type="checkbox"/></td> <td>Other core specifications</td> <td>TS 25.433 v. 4.3.0 CR 587r1</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Test specifications</td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td>O&amp;M Specifications</td> <td></td> </tr> </table>	<input checked="" type="checkbox"/>	Other core specifications	TS 25.433 v. 4.3.0 CR 587r1	<input type="checkbox"/>	Test specifications		<input type="checkbox"/>	O&M Specifications	
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<input type="checkbox"/>	Test specifications									
<input type="checkbox"/>	O&M Specifications									
<b>Other comments:</b>										

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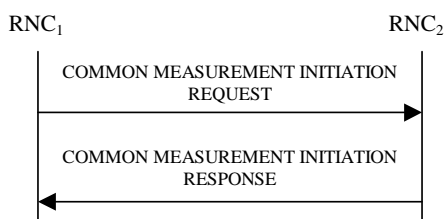
## 8.5.2 Common Measurement Initiation

### 8.5.2.1 General

This procedure is used by an RNC to request the initiation of measurements of common resources to another RNC. The requesting RNC is referred to as RNC<sub>1</sub> and the RNC to which the request is sent is referred to as RNC<sub>2</sub>.

This procedure uses the signalling bearer connection for the relevant Distant RNC Context.

### 8.5.2.2 Successful Operation



**Figure 30A: Common Measurement Initiation procedure, Successful Operation**

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the RNC<sub>1</sub> to the RNC<sub>2</sub>.

Upon reception, the RNC<sub>2</sub> shall initiate the requested measurement according to the parameters given in the request.

Unless specified below, the meaning of the parameters are given in other specifications.

[TDD- If the Time Slot Information is provided in the *Common Measurement Object Type* IE, the measurement request shall apply to the requested time slot individually.]

If the *Common Measurement Type* IE is not set to 'SFN-SFN Observed Time Difference' and the *SFN Reporting Indicator* IE is set to "FN Reporting Required", the *SFN* IE shall be included in the measurement report or in the measurement response, the latter only in the case the *Report Characteristics* IE is set to 'On-Demand'. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26]. If the *Common Measurement Type* IE is set to 'SFN-SFN Observed Time Difference', then the *SFN Reporting Indicator* IE is ignored.

If the *SFN* IE is provided, it indicates the frame for which the first measurement shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [26]. Furthermore, if the *SFN* IE is present and if the *Common Measurement Object Type* IE is set to "UP Neighbouring Cell", then the *SFN* IE relates to the Radio Frames of the Reference Cell identified by the first *UTRAN Cell Identifier* IE.

#### Common measurement type

If the *Common Measurement Type* IE is set to 'SFN-SFN Observed Time Difference', then the RNC<sub>2</sub> shall initiate the SFN-SFN Observed Time Difference measurements between the reference cell identified by *C-ID* IE and the neighbouring cells identified by the *UTRAN Cell Identifier* IE (*UC-Id*).

If the *Common Measurement Type* IE is set to 'load', the RNC<sub>2</sub> shall initiate measurements of uplink and downlink load on the measured object. If either uplink or downlink load satisfies the requested report characteristics, the RNC<sub>2</sub> shall report the result of both uplink and downlink measurements.

### Report characteristics

The *Report Characteristics* IE indicates how the reporting of the measurement shall be performed. See also Annex B.

If the *Report Characteristics* IE is set to 'On-Demand', the RNC<sub>2</sub> shall report the result of the requested measurement immediately.

If the *Report Characteristics* IE is set to 'Periodic', the RNC<sub>2</sub> shall periodically initiate a Measurement Reporting procedure for this measurement, with the requested report frequency. Furthermore, if the *Common Measurement Type* IE is set to 'SFN-SFN Observed Time Difference', then all the available measurements shall be reported in the *Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE and the neighbouring cells with no measurement result available shall be reported in the *Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE.

If the *Report Characteristics* IE is set to 'Event A', the RNC<sub>2</sub> shall initiate a Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the RNC<sub>2</sub> shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event B', the RNC<sub>2</sub> shall initiate a Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the RNC<sub>2</sub> shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event C', the RNC<sub>2</sub> shall initiate a Measurement Reporting procedure when the measured entity rises more than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising/falling time has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to 'Event D', the RNC<sub>2</sub> shall initiate a Measurement Reporting procedure when the measured entity falls more than the requested threshold within the requested time. After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the rising/falling time has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to 'Event E', the RNC<sub>2</sub> shall initiate the Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the RNC<sub>2</sub> shall initiate the Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If 'Measurement Threshold 2' is not present, the RNC<sub>2</sub> shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the RNC<sub>2</sub> shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to 'Event F', the RNC<sub>2</sub> shall initiate the Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the RNC<sub>2</sub> shall also initiate the Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If 'Measurement Threshold 2' is not present, the RNC<sub>2</sub> shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the RNC<sub>2</sub> shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to 'On Modification', the RNC<sub>2</sub> shall report the result of the requested measurement immediately. Then the RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure in accordance to the following conditions:

1. If the *Common Measurement Type* IE is set to 'UTRAN GPS Timing of Cell Frame for LCS':

- If the *T<sub>UTRAN-GPS</sub> Change Limit* IE is included in the *T<sub>UTRAN-GPS</sub> Measurement Threshold Information* IE, the RNC<sub>2</sub> shall each time a new measurement result is received [after point C in the measurement model \[25\]](#)~~from the physical layer measurement~~, calculate the change of T<sub>UTRAN-GPS</sub> value (F<sub>n</sub>). The RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of F<sub>n</sub> rises above the threshold indicated by the *T<sub>UTRAN-GPS</sub> Change Limit* IE. The change of T<sub>UTRAN-GPS</sub> value (F<sub>n</sub>) is calculated according to the following:

$$F_n = 0 \text{ for } n = 0$$

$$F_n = (M_n - M_{n-1}) \bmod 37158912000000 - ((SFN_n - SFN_{n-1}) \bmod 4096) * 10 * 3.84 * 10^3 * 16 + F_{n-1} \quad \text{for } n > 0$$

F<sub>n</sub> is the change of the T<sub>UTRAN-GPS</sub> value expressed in unit [1/16 chip] when n measurement results has been received after first Common Measurement Reporting at initiation or after the last event was triggered.

M<sub>n</sub> is the latest measurement result received [after point C in the measurement model \[25\]](#)~~from the physical layer measurements~~, measured at SFN<sub>n</sub>.

M<sub>n-1</sub> is the previous measurement result received [after point C in the measurement model \[25\]](#)~~from the physical layer measurements~~, measured at SFN<sub>n-1</sub>.

M<sub>1</sub> is the first measurement result received [after point C in the measurement model \[25\]](#)~~from the physical layer measurements~~ after first Common Measurement Reporting at initiation or after the last event was triggered.

M<sub>0</sub> is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

- If the *Predicted T<sub>UTRAN-GPS</sub> Deviation Limit* IE is included in the *T<sub>UTRAN-GPS</sub> Measurement Threshold Information* IE, the RNC<sub>2</sub> shall, each time a new measurement result is received [after point C in the measurement model \[25\]](#)~~from the physical layer measurement~~, update the P<sub>n</sub> and F<sub>n</sub>. The RNC<sub>2</sub> shall initiate the Common Measurement Reporting procedure and set n equal to zero when F<sub>n</sub> rises above the threshold indicated by the *Predicted T<sub>UTRAN-GPS</sub> Deviation Limit* IE. The P<sub>n</sub> and F<sub>n</sub> are calculated according to the following:

$$P_n = b \text{ for } n = 0$$

$$P_n = (-1 + a/16) * ((SFN_n - SFN_{n-1}) \bmod 4096) / 100 + ((SFN_n - SFN_{n-1}) \bmod 4096) * 10 * 3.84 * 10^3 * 16 + P_{n-1} \bmod 37158912000000 \text{ for } n > 0$$

$$F_n = \min(\text{abs}(M_n - P_n), \text{abs}(M_n - P_n - 37158912000000), \text{abs}(M_n - P_n + 37158912000000)) \text{ for } n > 0$$

$$F_n = \min((M_n - P_n) \bmod 37158912000000, (P_n - M_n) \bmod 37158912000000) \text{ for } n > 0$$

P<sub>n</sub> is the predicted T<sub>UTRAN-GPS</sub> value when n measurement results has been received after first Common Measurement Reporting at initiation or after the last event was triggered.

a is the last reported T<sub>UTRAN-GPS</sub> Drift Rate value.

b is the last reported T<sub>UTRAN-GPS</sub> value.

$F_n$  is the deviation of the last measurement result from the predicted  $T_{\text{UTRAN-GPS}}$  value ( $P_n$ ) when  $n$  measurements have been received after first Common Measurement Reporting at initiation or after the last event was triggered.

$M_n$  is the latest measurement result received [after point C in the measurement model \[25\]](#) ~~from the physical layer measurements~~, measured at  $\text{SFN}_n$ .

$M_1$  is the first measurement result received [after point C in the measurement model \[25\]](#) ~~from the physical layer measurements~~ after first Common Measurement Reporting at initiation or after the last event was triggered.

The  $T_{\text{UTRAN-GPS}}$  Drift Rate is determined by the DRNS in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

2. If the *Common Measurement Type* IE is set to ‘SFN-SFN Observed Time Difference’:

- If the *SFN-SFN Change Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the  $\text{RNC}_2$  shall each time a new measurement result is received [after point C in the measurement model \[25\]](#) ~~from the physical layer measurement~~, calculate the change of SFN-SFN value ( $F_n$ ). The  $\text{RNC}_2$  shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set  $n$  equal to zero when the absolute value of  $F_n$  rises above the threshold indicated by the *SFN-SFN Change Limit* IE. The change of the SFN-SFN value is calculated according to the following:

$$F_n = 0 \text{ for } n = 0$$

$$\text{[FDD - } F_n = (M_n - a) \bmod 614400 \text{ for } n > 0]$$

$$\text{[TDD - } F_n = (M_n - a) \bmod 40960 \text{ for } n > 0]$$

$F_n$  is the change of the SFN-SFN value expressed in unit [1/16 chip] when  $n$  measurement results has been received after first Common Measurement Reporting at initiation or after the last event was triggered.

$a$  is the last reported SFN-SFN.

$M_n$  is the latest measurement result received [after point C in the measurement model \[25\]](#) ~~from the physical layer measurements~~, measured at  $\text{SFN}_n$ .

$M_1$  is the first measurement result received [after point C in the measurement model \[25\]](#) ~~from the physical layer measurements~~ after first Common Measurement Reporting at initiation or after the last event was triggered.

- If the *Predicted SFN-SFN Deviation Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the  $\text{RNC}_2$  shall each time a new measurement result is received [after point C in the measurement model \[25\]](#) ~~from the physical layer measurement~~, update the  $P_n$  and  $F_n$ . The  $\text{RNC}_2$  shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set  $n$  equal to zero when  $F_n$  rises above the threshold indicated by the *Predicted SFN-SFN Deviation Limit* IE. The  $P_n$  and  $F_n$  are calculated according to the following:

$$P_n = b \text{ for } n = 0$$

$$\text{[FDD - } P_n = ((a/16) * ((\text{SFN}_n - \text{SFN}_{n-1}) \bmod 4096) / 100 + P_{n-1}) \bmod 614400 \text{ for } n > 0]$$

$$F_n = \min((M_n - P_n) \bmod 614400, (P_n - M_n) \bmod 614400) \text{ for } n > 0]$$

$$\text{[TDD - } P_n = ((a/16) * (15 * (\text{SFN}_n - \text{SFN}_{n-1}) \bmod 4096 + (\text{TS}_n - \text{TS}_{n-1}) / 1500 + P_{n-1}) \bmod 40960 \text{ for } n > 0 - ((a * (15 * (\text{SFN}_n - \text{SFN}_{n-1}) \bmod 4096) + (\text{TS}_n - \text{TS}_{n-1}) * 2560 * 16 + P_{n-1}) \bmod 40960) - 20480 \text{ for } n > 0]$$

$$F_n = \min(\text{abs}(M_n - P_n), \text{abs}(M_n - P_n - 40960), \text{abs}(M_n - P_n + 40960)) \text{ for } n > 0$$

$$F_n = \min((M_n - P_n) \bmod 40960, (P_n - M_n) \bmod 40960) \text{ for } n > 0$$

$P_n$  is the predicted SFN-SFN value when n measurement results has been received after first Common Measurement Reporting at initiation or after the last event was triggered.

$a$  is the last reported SFN-SFN Drift Rate value.

$b$  is the last reported SFN-SFN value.

$F_n$  is the deviation of the last measurement result from the predicted SFN-SFN value ( $P_n$ ) when n measurements has been received after first Common Measurement Reporting at initiation or after the last event was triggered.

$M_n$  is the latest measurement result received [after point C in the measurement model \[25\]](#) ~~from the physical layer measurements~~, measured at the [\[TDD- Time Slot TS<sub>n</sub>\]](#) of the Frame SFN<sub>n</sub>.

$M_1$  is the first measurement result received [after point C in the measurement model \[25\]](#) ~~from the physical layer measurements~~ after first Common Measurement Reporting at initiation or after the last event was triggered.

The SFN-SFN Drift Rate is determined by the DRNS in an implementation-dependent way after point B (see model of physical layer measurements in [26]).

If the *Report Characteristics* IE is not set to 'On-Demand', the RNC<sub>2</sub> is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists any more the RNC<sub>2</sub> shall terminate the measurement locally without reporting this to RNC<sub>1</sub>.

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the RNC<sub>2</sub> shall initiate a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

### Common measurement accuracy

If the *Common Measurement Type* IE is set to 'UTRAN GPS Timing of Cell Frames for LCS', then the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE included in the *Report Characteristics* IE indicates the minimum accuracy class required in the measurements.

- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates 'Class A', then the concerned RNC<sub>2</sub> shall perform the measurement with the highest supported accuracy according to any of the accuracy classes A, B or C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates the 'Class B', then the concerned RNC<sub>2</sub> shall perform the measurements with the highest supported accuracy according to class B or C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates 'Class C', then the concerned RNC<sub>2</sub> shall perform the measurements with the highest supported accuracy according to class C only.
- If the *Common Measurement Type* IE is set to 'SFN-SFN Observed Time Difference', then the concerned RNC<sub>2</sub> shall initiate the SFN-SFN observed Time Difference measurements between the reference cell identified by *UC-ID* IE and the neighbouring cells identified by their UC-ID. The *Report Characteristics* IE applies to each of these measurements.

### Higher layer filtering

The *Measurement Filter Coefficient* IE indicates how filtering of the measurement values shall be performed before measurement event evaluation and reporting.



The averaging shall be performed according to the following formula.

$$F_n = (1 - a) \cdot F_{n-1} + a \cdot M_n$$

The variables in the formula are defined as follows

$F_n$  is the updated filtered measurement result

$F_{n-1}$  is the old filtered measurement result

$M_n$  is the latest received measurement result from physical layer measurements

$a = 1/2^{(k/2)}$ , where  $k$  is the parameter received in the *Measurement Filter Coefficient* IE. If the *Measurement Filter Coefficient* IE is not present,  $a$  shall be set to 1 (no filtering)

In order to initialise the averaging filter,  $F_0$  is set to  $M_1$  when the first measurement result from the physical layer measurement is received.

### Response message

If the RNC<sub>2</sub> was able to initiate the measurement requested by RNC<sub>1</sub> it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent. The message shall include the same Measurement ID that was used in the measurement request. Only in the case when the *Report Characteristics* IE is set to "On-Demand" or "On Modification", the COMMON MEASUREMENT INITIATION RESPONSE message shall contain the measurement result. It shall also the *Common Measurement Achieved Accuracy* IE in the *Common Measurement Value* IE if the *Common Measurement Type* IE is set to 'UTRAN GPS Timing of Cell Frame for LCS'.

Furthermore, if the *Common Measurement Type* IE is set to 'SFN-SFN Observed Time Difference', then all the available measurements shall be reported in the *Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE and the neighbouring cells with no measurement result available shall be reported in the *Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE.

## CHANGE REQUEST

⌘ **25.423 CR 552** ⌘ rev  ⌘ Current version: **4.3.0** ⌘

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  Core Network

<b>Title:</b>	⌘ Re-ordering of cause values		
<b>Source:</b>	⌘ R-WG3		
<b>Work item code:</b>	⌘ TEI	<b>Date:</b>	⌘ 2002-February
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ REL4
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.		Use <u>one</u> 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)

<b>Reason for change:</b>	⌘ There are several REL4 specific cause values. In ASN.1, these values shall be placed after R99 cause values in order to guarantee backward compatibility between different releases. This rule is specified in TR25.921. However, in the current ASN.1, this rule is not kept.
<b>Summary of change:</b>	⌘ In ASN.1, the cause value "Cell reserved for operator use" was replaced before the REL4 specific cause values. In addition, tabular format was aligned with ASN.1.
<b>Consequences if not approved:</b>	⌘ If this CR is not approved, backward compatibility is not guaranteed between different releases.  <u>Impact Analysis:</u>  Impact assessment towards the previous version of the specification (same release):  This CR has non isolated impact with the previous version of the specification (same release) because the order of cause values was changed.  This CR has an impact under protocol point of view. The impact can not be considered isolated because the change affects all procedures which include Cause IE.

<b>Clauses affected:</b>	⌘ 9.2.1.5 and 9.3.4		
<b>Other specs affected:</b>	⌘ <input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications	⌘	<input type="text"/>
<b>Other comments:</b>	⌘ <input type="text"/>		

**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](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.

### 9.2.1.5 Cause

The purpose of the cause information element is to indicate the reason for a particular event for the whole protocol.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Cause Group				
>Radio Network Layer				
>>Radio Network Layer Cause	M		ENUMERATED (Unknown C-ID, Cell not Available, Power Level not Supported, UL Scrambling Code Already in Use, DL Radio Resources not Available, UL Radio Resources not Available, Measurement not Supported For The Object, Combining Resources Not Available, Combining not Supported, Reconfiguration not Allowed, Requested Configuration not Supported, Synchronisation Failure, Requested Tx Diversity Mode not Supported, Measurement Temporarily not Available, Unspecified, Invalid CM Settings, Reconfiguration CFN not Elapsed, Number of DL Codes Not Supported, Dedicated Transport Channel Type not Supported, DL Shared Channel Type not Supported, UL Shared Channel Type not Supported, Common Transport Channel Type not Supported, UL Spreading Factor not Supported, DL Spreading Factor not Supported, CM not Supported, Transaction not Supported by Destination Node B, RL Already Activated/Allocated, ..., Number of UL Codes Not Supported, Cell reserved for operator use, DPC Mode Change not Supported, Information temporarily not available, Information Provision not supported for the object; Cell reserved for operator use)	
>Transport Layer				
>>Transport Layer Cause	M		ENUMERATED (Transport Resource Unavailable, Unspecified, ...)	
>Protocol				
>>Protocol Cause			ENUMERATED (Transfer Syntax Error, Abstract Syntax Error (Reject), Abstract Syntax Error (Ignore and Notify), Message not Compatible with Receiver State, Semantic Error, Unspecified, Abstract Syntax Error (Falsely Constructed Message),...)	
>Misc				
>>Miscellaneous Cause	M		ENUMERATED (Control Processing Overload, Hardware Failure, O&M Intervention, Not enough User Plane Processing Resources, Unspecified,...)	

<Not affected part is omitted>

### 9.3.4 Information Element Definitions

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

RNSAP-IEs {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
ums-Access (20) modules (3) rnsap (1) version1 (1) rnsap-IEs (2) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN
```

<Not affected part is omitted>

```
-- C

Cause ::= CHOICE {
    radioNetwork      CauseRadioNetwork,
    transport         CauseTransport,
    protocol          CauseProtocol,
    misc              CauseMisc,
    ...
}

CauseMisc ::= ENUMERATED {
    control-processing-overload,
    hardware-failure,
    om-intervention,
    not-enough-user-plane-processing-resources,
    unspecified,
    ...
}

CauseProtocol ::= ENUMERATED {
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
```

```
semantic-error,  
unspecified,  
abstract-syntax-error-falsely-constructed-message,  
...  
}  
  
CauseRadioNetwork ::= ENUMERATED {  
  unknown-C-ID,  
  cell-not-available,  
  power-level-not-supported,  
  ul-scrambling-code-already-in-use,  
  dl-radio-resources-not-available,  
  ul-radio-resources-not-available,  
  measurement-not-supported-for-the-object,  
  combining-resources-not-available,  
  combining-not-supported,  
  reconfiguration-not-allowed,  
  requested-configuration-not-supported,  
  synchronisation-failure,  
  requested-tx-diversity-mode-not-supported,  
  measurement-temporarily-not-available,  
  unspecified,  
  invalid-CM-settings,  
  reconfiguration-CFN-not-elapsed,  
  number-of-DL-codes-not-supported,  
  dedicated-transport-channel-type-not-supported,  
  dl-shared-channel-type-not-supported,  
  ul-shared-channel-type-not-supported,  
  common-transport-channel-type-not-supported,  
  ul-spreading-factor-not-supported,  
  dl-spreading-factor-not-supported,  
  cm-not-supported,  
  transaction-not-supported-by-destination-node-b,  
  rl-already-activated-or-allocated,  
  ...,  
  number-of-UL-codes-not-supported,  
  cell-reserved-for-operator-use,  
  dpc-mode-change-not-supported,  
  information-temporarily-not-available,  
  information-provision-not-supported-for-the-object,  
  cell reserved for operator use  
}  
  
CauseTransport ::= ENUMERATED {  
  transport-resource-unavailable,  
  unspecified,  
  ...  
}
```

## CHANGE REQUEST

⌘ **25.423 CR 561** ⌘ ev  ⌘ Current version: **4.3.0** ⌘

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  Core Network

<b>Title:</b>	⌘	Clarification to the Allowed Rate Information in RL Setup/Addition/Reconfiguration response and RL Reconfiguration Ready messages.	
<b>Source:</b>	⌘	R-WG3	
<b>Work item code:</b>	⌘	TEI	<b>Date:</b> ⌘ February 2002
<b>Category:</b>	⌘	<b>F</b>	<b>Release:</b> ⌘ REL-4
		Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.	Use <u>one</u> of the following releases: <b>2</b> (GSM Phase 2) <b>R96</b> (Release 1996) <b>R97</b> (Release 1997) <b>R98</b> (Release 1998) <b>R99</b> (Release 1999) <b>REL-4</b> (Release 4) <b>REL-5</b> (Release 5)

<b>Reason for change:</b>	⌘	In principle agreed CR at RAN3#26:  Currently it is not clear what the reason for congestion is when DRNC indicates a lower user rate in the <i>Allowed Rate Information</i> IE in the <i>DCH Information Response</i> IE for an DCH in the Radio Link Setup/Addition/Reconfiguration Response and Radio link Reconfiguration Ready messages.  It is clarified that the cause for congestion is due to lack of UL and/or DL UTRAN Dynamic Resources, Otherwise the DRNC should just reject the request if the congestion was due to lack of " UTRAN Semistatic Resources".
<b>Summary of change:</b>	⌘	It is clarified that the cause for congestion is due to lack of UL and/or DL UTRAN Dynamic Resources when the DRNC indicates lower user rate in the <i>Allowed Rate Information</i> IE in the <i>DCH Information Response</i> IE for an DCH in the Radio Link Setup/Addition/Reconfiguration Response and Radio link Reconfiguration Ready messages.
<b>Consequences if not approved:</b>	⌘	If this CR is not approved, this unclarity will remain, potentially leading to multi-vendor problems. <u>Impact Analysis:</u>  Impact assessment towards the previous version of the specification (same release):  The CR has no impact for implementation assuming the clarified behaviour. Otherwise this CR has isolated impact with the previous version of the specification (same release), however the impact can be considered isolated because the change affects one function.

**Clauses affected:** ⌘ 8.3.1.2, 8.3.2.2, 8.3.4.2 and 8.3.7.2.



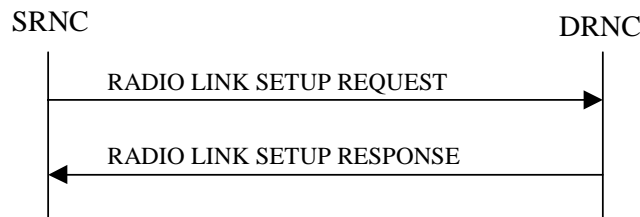
<b>Other specs affected:</b>	⌘ <input type="checkbox"/>	Other core specifications	⌘	
	<input type="checkbox"/>	Test specifications		
	<input type="checkbox"/>	O&M Specifications		
<b>Other comments:</b>	⌘			

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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.

### 8.3.1.2 Successful Operation



**Figure 5: Radio Link Setup procedure: Successful Operation**

When the SRNC makes an algorithmic decision to add the first cell or set of cells from a DRNS to the active set of a specific UE-UTRAN connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request establishment of the radio link(s).

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

If the RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

If no *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message, the DRNC shall assign a new *D-RNTI* for this UE.

#### Transport Channels Handling:

##### DCH(s):

[TDD - If the *DCH Information* IE is present in RADIO LINK SETUP REQUEST message, the DRNS shall configure the new DCHs according to the parameters given in the message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCH Information* IE as a set of co-ordinated DCHs.

[FDD - For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [4]. If the *QE-Selector* is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [4].]

For a set of co-ordinated DCHs the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [4]. [FDD - If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [4]. If all DCHs have *QE-Selector* IE set to "non-selected" the Physical channel BER shall be used for the QE, ref. [4].]

The DRNS shall use the included *UL DCH FP Mode* IE for a DCH or a set of co-ordinated DCHs as the DCH FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs.

The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs.

The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs.

The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise between different frames of the data frames of the DCHs in the downlink on the radio interface in congestion situations once the new RL(s) have been activated.

If the *DCH Specific Info* IE in the *DCH Information* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:

- If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.
- If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the downlink of the DCH.

**DSCH(s):**

If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNC shall establish the requested DSCHs [FDD - on the RL indicated by the PDSCH RL ID IE]. In addition, the DRNC shall send a valid set of *DSCH Scheduling Priority* IE and *MAC-c/sh SDU Length* IE parameters to the SRNC in the message RADIO LINK SETUP RESPONSE message.

**[TDD - USCH(s)]:**

[TDD – The DRNS shall use the list of RB Identities in the *RB Info* IE in the *USCH information* IE to map each *RB Identity* IE to the corresponding USCH.]

**Physical Channels Handling:****[FDD - Compressed Mode]:**

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or last Radio Link is deleted.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the DRNS shall use the information to activate the indicated Transmission Gap Pattern Sequences(s) in the new RL. The received *CM Configuration Change CFN* IE refers to latest passed CFN with that value. The DRNS shall treat the received *TGCFN* IEs as follows:]

- [FDD - If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the *CM Configuration Change CFN* with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the *CM Configuration Change CFN* with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

[FDD- If the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence is set to 'SF/2' in the RADIO LINK SETUP REQUEST message, the DRNS shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK SETUP RESPONSE message indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

**[FDD - DL Code Information]:**

[FDD – When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When  $p$  number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to “*PhCH number 1*”, the second to “*PhCH number 2*”, and so on until the  $p$ th to “*PhCH number p*”.]

#### General:

[FDD - If the *Propagation Delay* IE is included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]

[FDD – If the received *Limited Power Increase* IE is set to 'Used', the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control.]

#### Radio Link Handling:

##### Diversity Combination Control:

[FDD - The *Diversity Control Field* IE indicates for each RL except for the first RL whether the DRNS shall combine the RL with any of the other RLs or not on the Iur. If the *Diversity Control Field* IE is set to "May" (be combined with another RL), then the DRNS shall decide for any of the alternatives. If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL. When an RL is to be combined, the DRNS shall choose which RL(s) to combine it with. If the *Diversity Control Field* IE is set to “Must not”, the DRNS shall not combine the RL with any other existing RL.]

[FDD - In the case of combining one or more RLs the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message with the *Diversity Indication* IE that the RL is combined with another RL for all RLs but the first RL. In this case the Reference *RL ID* IE shall be included to indicate with which RL the combination is performed. The Reference *RL ID* IE shall not be included for the first of the combined RLs, for which the *Transport Layer Address* IE and the *Binding ID* IE shall be included.]

[FDD - In the case of not combining an RL with another RL, the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message with the *Diversity Indication* IE that no combining is performed. In this case the DRNC shall include both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH and DSCH of the RL in the RADIO LINK SETUP RESPONSE message.]

[TDD - The DRNC shall always include in the RADIO LINK SETUP RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH, DSCH and USCH of the RL.]

In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur the *Binding ID* IE and the *Transport Layer Address* IE shall be included only for one of the DCHs in the set of co-ordinated DCHs.

##### [FDD-Transmit Diversity]:

[FDD – If the cell in which the RL is being set up is capable to provide Close loop Tx diversity, the DRNC shall include the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK SETUP RESPONSE message indicating the configured Closed loop timing adjustment mode of the cell.]

[FDD – When *Diversity Mode* IE is "STTD", "Closed loop mode1", or "Closed loop mode2", the DRNC shall activate/deactivate the Transmit Diversity to each Radio Link in accordance with *Transmit Diversity Indicator* IE].

##### DL Power Control:

[FDD - If both the *Initial DL TX Power* IE and *Uplink SIR Target* IE are included in the message, the DRNS shall use the indicated DL TX Power and Uplink SIR Target as initial value. If the value of the *Initial DL TX Power* IE is outside the configured DL TX power range, the DRNS shall apply these constraints when setting the initial DL TX power. The DRNS shall also include the configured DL TX power range defined by *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power IE* or lower than indicated by the *Minimum DL TX Power IE* on any DL DPCH of the RL except during compressed mode, when the  $P_{SIR}(k)$ , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot  $k$ .]

[FDD - If both the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not included in the RADIO LINK SETUP REQUEST message, then DRNC shall determine the initial Uplink SIR Target and include it in the *Uplink SIR Target* IE in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the *Primary CPICH Ec/No* IE is present, the DRNC should use the indicated value when deciding the Initial DL TX Power.]

[TDD - If the *Primary CCPCH RSCP* IE and/or the [3.84Mcps TDD - *DL Time Slot ISCP Info* IE] and/or the [1.28Mcps TDD - *DL Time Slot ISCP Info LCR* IE] are present, the DRNC should use the indicated values when deciding the Initial DL TX Power.]

[FDD – The DRNS shall start the DL transmission using the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code of a RL until UL synchronisation is achieved on the Uu interface for the concerning RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10] subclause 5.2.1.2) and the power control procedure (see 8.3.7).]

[TDD – The DRNS shall start the DL transmission using the decided DL TX power level on each DL channelisation code and on each Time Slot of a RL until UL synchronisation is achieved on the Uu interface for the concerning RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3).]

[FDD – If the received *Inner Loop DL PC Status* IE is set to “Active”, the DRNS shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to “Inactive”, the DRNS shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the life time of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

#### **Neighbouring Cell Handling:**

If there are UMTS neighbouring cell(s) to the cell in which a Radio Link was established then:

- The DRNC shall include the *Neighbouring FDD Cell Information* IE and/or *Neighbouring TDD Cell Information* IE in the *Neighbouring UMTS Cell Information* IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include the *Frame Offset* IE, *Primary CPICH Power* IE, *Cell Individual Offset* IE, *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE and *Closed Loop Mode2 Support Indicator* IE in the *Neighbouring FDD Cell Information* IE, and the *Frame Offset* IE, *Cell Individual Offset* IE, *DPCH Constant Value* IE and the *PCCPCH Power* IE in the *Neighbouring TDD Cell Information* IE.
- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.
- [FDD - The DRNC shall include the *DPC Mode Change Support Indicator* IE if the DRNC is aware that the neighbouring cell supports DPC mode change.]

For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK SETUP RESPONSE message the restriction state of those cells, otherwise *Restriction state indicator* IE may be absent. The DRNC shall include the *Restriction state indicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

If there are GSM neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include the *Neighbouring GSM Cell Information* IE in the RADIO LINK SETUP RESPONSE message for each of the GSM neighbouring cells. If available the DRNC shall include the *Cell Individual Offset* IE in the *Neighbouring GSM Cell Information* IE.

#### **General:**

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity* IE and the *S-Field Length* IE, the DRNS shall activate SSDT, if supported, using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity for EDSCHPC* IE, the DRNS shall activate enhanced DSCH power control, if supported, using the *SSDT Cell Identity for EDSCHPC* IE and *SSDT Cell Identity Length* IE as well as *Enhanced DSCH PC* IE in accordance with ref. [10] subclause 5.2.2. If the RADIO LINK SETUP REQUEST message includes both *SSDT Cell Identity* IE and *SSDT Cell Identity for EDSCHPC* IE, then the DRNS shall ignore the *SSDT Cell Identity for EDSCHPC* IE.]

[FDD - If the *DRAC Control* IE is set to "requested" in the RADIO LINK SETUP REQUEST message for at least one DCH and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message the *Secondary CCPCH Info* IE for the FACH where the DRAC information is sent, for each Radio Link established in a cell where DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK SETUP RESPONSE message.]

If no *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message, the DRNC shall include the node identifications of the CN Domain nodes that the RNC is connected to (using LAC and RAC of the current cell), and the *D-RNTI* IE in the RADIO LINK SETUP RESPONSE message.

[FDD - If the *D-RNTI* IE was included the RADIO LINK SETUP REQUEST message the DRNC shall include the *Primary Scrambling Code* IE, the *UL UARFCN* IE and the *DL UARFCN* IE in the RADIO LINK SETUP RESPONSE message.]

[TDD – If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include the *UARFCN* IE, the *Cell Parameter ID* IE, [3.84Mcps TDD - the *Sync Case* IE, the *SCH Time Slot* IE,] the *SCTD Indicator* IE, and the *PCCPCH Power* IE in the RADIO LINK SETUP RESPONSE message.]

[TDD - The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the [3.84Mcps TDD - *Secondary CCPCH Info TDD* IE] [1.28Mcps TDD – *Secondary CCPCH Info TDD LCR* IE] in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

For each Radio Link established in a cell where at least one URA Identity is being broadcast, the DRNC shall include a URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the RNC Identity of all other RNCs that are having at least one cell within the URA in the cell in the *URA Information* IE in the RADIO LINK SETUP RESPONSE message.

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE and the UTRAN access point position for each of the established RLs in the RADIO LINK SETUP RESPONSE message.

If the DRNS need to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) already when starting to utilise a new Radio Link, the DRNC shall include the *Allowed UL Rate* IE of the *Allowed Rate Information* IE in the *DCH Information Response* IE for this DCH in the RADIO LINK SETUP RESPONSE message for this Radio Link.

If the DRNS need to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) already when starting to utilise a new Radio Link, the DRNC shall include the *Allowed DL Rate* IE of the *Allowed Rate Information* IE in the *DCH Information Response* IE for this DCH in the RADIO LINK SETUP RESPONSE message for this Radio Link.

If the *Permanent NAS UE Identity* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.

If the RADIO LINK SETUP REQUEST message includes the *Permanent NAS UE Identity* IE and a *C-ID* IE corresponding to a cell reserved for operator use, the DRNC shall use this information to determine whether it can set up a Radio Link on this cell or not for the considered UE Context.

**[FDD - Radio Link Set Handling]:**

[FDD - The *First RLS Indicator* IE indicates if the concerning RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the DRNS to determine the initial TPC pattern in the DL of the concerning RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message a value that uniquely identifies the RL Set within the UE Context.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message the same value. This value shall uniquely identify the RL Set within the UE context.]

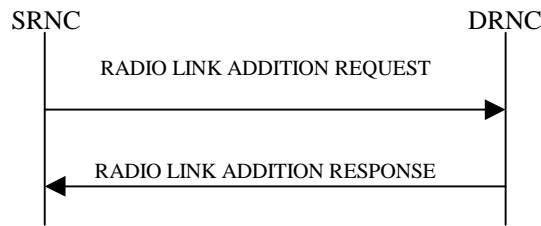
[FDD –The UL Uu synchronisation detection algorithm defined in ref. [10] subclause 4.3 shall for each of the established RL Set(s) use the maximum value of the parameters N\_OUTSYNC\_IND and T\_RLFAILURE, and the minimum value of the parameters N\_INSYNC\_IND, that are configured in the cells supporting the radio links of the RL Set].

**Response Message:**

At the reception of the RADIO LINK SETUP REQUEST message, DRNS allocates requested type of channelisation codes and other physical channel resources for each RL and assigns a binding identifier and a transport layer address for each DCH or set of co-ordinated DCHs and for each DSCH [TDD – and USCH]. This information shall be sent to the SRNC in the message RADIO LINK SETUP RESPONSE when all the RLs have been successfully established.

After sending of the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface and start reception on the new RL. [FDD - The DRNS shall start DL transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [4].] [TDD – The DRNS shall start transmission on the new RL immediately as specified in ref. [4].]

### 8.3.2.2 Successful Operation



**Figure 7: Radio Link Addition procedure: Successful Operation**

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the SRNC to the DRNC.

Upon reception, the DRNS shall reserve the necessary resources and configure the new RL(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

The DRNS shall prioritise resource allocation for the RL(s) to be established according to Annex A.

#### Transport Channel Handling:

##### DSCH:

[TDD - If the radio link to be added includes a DSCH, the DRNC shall send a set of valid *DSCH Scheduling Priority IE* and *MAC-c/sh SDU Length IE* parameters to the SRNC in the message RADIO LINK ADDITION RESPONSE message.]

#### Physical Channels Handling:

##### [FDD-Compressed Mode]:

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Active Pattern Sequence Information IE*, the DRNS shall use the information to activate the indicated (all ongoing) Transmission Gap Pattern Sequence(s) in the new RL. The received *CM Configuration Change CFN IE* refers to the latest passed CFN with that value. The DRNS shall treat the received *TGCFN IEs* as follows:]

- [FDD - If any received *TGCFN IE* has the same value as the received *CM Configuration Change CFN IE*, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - If any received *TGCFN IE* does not have the same value as the received *CM Configuration Change CFN IE* but the first CFN after the *CM Configuration Change CFN* with a value equal to the *TGCFN IE* has already passed, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information IE*, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the *CM Configuration Change CFN* with a value equal to the *TGCFN IE* for the Transmission Gap Pattern Sequence.]

FDD - If the *Active Pattern Sequence Information IE* is not included, the DRNS shall not activate the ongoing compressed mode pattern in the new RLs, but the ongoing pattern in the existing RL shall be maintained.]

[FDD - If some Transmission Gap Pattern sequences using SF/2 method are initialised in the DRNS, DRNS shall include the *Transmission Gap Pattern Sequence Scrambling Code Information IE* in the RADIO LINK ADDITION RESPONSE message to indicate the Scrambling code change method that it selects for each channelisation code.]

##### [FDD-DL Code Information]:

[FDD - When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When  $p$  number of DL DPDCHs are assigned to each RL, the



first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to “*PhCH number 1*”, the second to “*PhCH number 2*”, and so on until the *p*th to “*PhCH number p*”.]

#### General:

[FDD - The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

#### Radio Link Handling:

##### Diversity Combination Control:

The *Diversity Control Field* IE indicates for each RL whether the DRNS shall combine the new RL with existing RL(s) or not on the Iur. If the *Diversity Control Field* IE is set to "May" (be combined with another RL), then the DRNS shall decide for any of the alternatives. If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL. When a new RL is to be combined the DRNS shall choose which RL(s) to combine it with. If the *Diversity Control Field* IE is set to "Must not", the DRNS shall not combine the RL with any other existing RL.

In the case of combining an RL with existing RL(s) the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message with the *Diversity Indication* IE that the RL is combined. In this case the Reference RL ID shall be included to indicate one of the existing RLs that the new RL is combined with.

[FDD - In the case of combining one or more RLs being established by this procedure, the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message with the *Diversity Indication* IE that the RL is combined with another RL for all RLs but the first RL. In this case the Reference RL ID shall be included to indicate one of the other RLs being established by this procedure that the new RL is combined with. The Reference *RL ID* IE shall not be included for the first of the combined RLs, for which the *Transport Layer Address* IE and the *Binding ID* IE shall be included.]

In the case of not combining an RL with existing RL(s), the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message with the *Diversity Indication* IE that no combining is done. In this case the DRNC shall include both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH, [TDD – and DSCH, USCH] of the RL in the RADIO LINK ADDITION RESPONSE message.

In case of a set of co-ordinated DCHs, the *Binding ID* IE and the *Transport Layer Address* IE shall be included for only one of the DCHs in the set of co-ordinated DCHs.

If the DRNS need to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) already when starting to utilise a new Radio Link, the DRNC shall include the *Allowed UL Rate* IE of the *Allowed Rate Information* IE in the *DCH Information Response* IE for this DCH in the RADIO LINK ADDITION RESPONSE message for this Radio Link.

If the DRNS need to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) already when starting to utilise a new Radio Link, the DRNC shall include the *Allowed DL Rate* IE of the *Allowed Rate Information* IE in the *DCH Information Response* IE for this DCH in the RADIO LINK ADDITION RESPONSE message for this Radio Link.

##### [FDD-Transmit Diversity]:

The DRNS shall activate any feedback mode diversity according to the received settings.

[FDD – If the cell in which the RL is being added is capable to provide Close loop Tx diversity, the DRNC shall include the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK ADDITION RESPONSE message indicating the Closed loop timing adjustment mode of the cell.]

[FDD – When *Transmit Diversity Indicator* IE is present the DRNS shall activate/deactivate the Transmit Diversity to each new Radio Link in accordance with the *Transmit Diversity Indicator* IE using the diversity mode of the existing Radio Link(s).]

##### DL Power Control:

[FDD - If the *Primary CPICH Ec/No* IE measured by the UE is included for an RL in the RADIO LINK ADDITION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power for

this RL. If the *Primary CPICH Ec/No* IE is not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CPICH power used by the existing RLS.]

[TDD - If the *Primary CCPCH RSCP* IE and/or the [3.84Mcps TDD - *DL Time Slot ISCP Info* IE] and/or the [1.28Mcps TDD - *DL Time Slot ISCP Info LCR* IE] are included in the RADIO LINK ADDITION REQUEST message, the DRNS shall use them in the calculation of the Initial DL TX Power. If the *Primary CCPCH RSCP* IE and [3.84Mcps TDD - *DL Time Slot ISCP Info* IE] and [1.28Mcps TDD - *DL Time Slot ISCP Info LCR* IE] are not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CCPCH power used by the existing RL.]

[FDD - The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [10] subclause 5.2.1.2) and the power control procedure (see 8.3.7)].

[TDD – The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RL. No innerloop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3)].

[FDD - If the *DPC Mode* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the life time of the RL. If the *DPC Mode* IE is not present in the RADIO LINK ADDITION REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]

The DRNC shall also provide the configured UL Maximum SIR and UL Minimum SIR for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. These values are taken into consideration by DRNS admission control and shall be used by the SRNC as limits for the UL inner-loop power control target.

The DRNC shall provide the configured *Maximum DL TX Power* IE and *Minimum DL TX Power* IE for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power* IE or lower than indicated by the *Minimum DL TX Power* IE on any DL DPCH of the RL [FDD – except during compressed mode, when the  $P_{SIR}(k)$ , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k].

#### **DL Code Information:**

The DRNC shall also provide the selected scrambling and channelisation codes of the new RLS in order to enable the SRNC to inform the UE about the selected codes.

#### **Neighbouring Cell Handling:**

If there are UMTS neighbouring cell(s) to the cell in which a Radio Link was established then:

- The DRNC shall include the *Neighbouring FDD Cell Information* IE and/or *Neighbouring TDD Cell Information* IE in the *Neighbouring UMTS Cell Information* IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include the *Frame Offset* IE, *Primary CPICH Power* IE, *Cell Individual Offset* IE, *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE and *Closed Loop Mode2 Support Indicator* IE in the *Neighbouring FDD Cell Information* IE, and the *Frame Offset* IE, *Cell Individual Offset* IE, *DPCH Constant Value* IE and the *PCCPCH Power* IE in the *Neighbouring TDD Cell Information* IE.
- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.
- [FDD - The DRNC shall include the *DPC Mode Change Support Indicator* IE if the DRNC is aware that the neighbouring cell supports DPC mode change.]

For the UMTS neighbouring cells which are controlled by the DRNC, the DRNC shall report in the RADIO LINK SETUP RESPONSE message the restriction state of those cells, otherwise *Restriction state indicator* IE may be absent. The DRNC shall include the *Restriction state indicator* IE for the neighbouring cells which are controlled by the DRNC in the *Neighbouring FDD Cell Information* IE, the *Neighbouring TDD Cell Information* IE and the *Neighbouring TDD Cell Information LCR* IE.

If there are GSM neighbouring cells to the cell(s) where a radio link is established, the DRNC shall include the *Neighbouring GSM Cell Information* IE in the RADIO LINK ADDITION RESPONSE message for each of the GSM neighbouring cells. If available the DRNC shall include the *Cell Individual Offset* IE in the *Neighbouring GSM Cell Information* IE.

[FDD - The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

**General:**

[FDD - If the RADIO LINK ADDITION REQUEST message contains an *SSDT Cell Identity* IE, SSDT shall, if supported, be activated for the concerned new RL, with the indicated SSDT Cell Identity used for that RL.]

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE, and the UTRAN access point position for each of the added RLs in the RADIO LINK ADDITION RESPONSE message.

For each Radio Link established in a cell where at least one URA Identity is being broadcast, the DRNC shall include a URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the RNC Identity of all other RNCs that are having at least one cell within the URA in the cell in the *URA Information* IE in the RADIO LINK ADDITION RESPONSE message.

[FDD - If the UE has been allocated one or several DCH controlled by DRAC and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message the *Secondary CCPCH Info* IE for the FACH where the DRAC information is sent, for each Radio Link established in a cell where DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK ADDITION RESPONSE message.]

[TDD - The DRNC shall include the [3.84Mcps TDD - *Secondary CCPCH Info TDD* IE] [1.28Mcps TDD – *Secondary CCPCH Info TDD LCR* IE] in the RADIO LINK ADDITION RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the [3.84Mcps TDD - *Secondary CCPCH Info TDD* IE] [1.28Mcps TDD – *Secondary CCPCH Info TDD LCR* IE] in the RADIO LINK ADDITION RESPONSE message if at least one [3.84Mcps TDD - *DSCH Information Response* IE] [1.28Mcps TDD – *DSCH Information Response LCR* IE or *USCH Information Response LCR* IE] or *USCH Information Response* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

If the *Permanent NAS UE Identity* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.

If the RADIO LINK ADDITION REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is available in the DRNC for the considered UE Context, the DRNC shall use this information to determine whether it can add the Radio Link on this cell or not.

**[FDD-Radio Link Set Handling]:**

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message a value that uniquely identifies the RL Set within the UE context.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the DRNS shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message the same value. This value shall uniquely identify the RL Set within the UE context.]

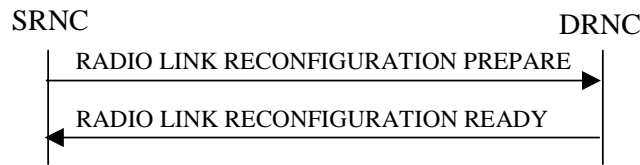
[FDD – After addition of the new RL(s), the UL Uu synchronisation detection algorithm defined in ref. [10] subclause 4.3 shall for each of the previously existing and newly established RL Set(s) use the maximum value of the parameters *N\_OUTSYNC\_IND* and *T\_RLFAILURE*, and the minimum value of the parameters *N\_INSYNC\_IND*, that are configured in the cells supporting the radio links of the RL Set].

**Response message:**

If all requested RLs are successfully added, the DRNC shall respond with a RADIO LINK ADDITION RESPONSE message.

After sending of the RADIO LINK ADDITION RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface and start reception on the new RL. [FDD - The DRNS shall start DL transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [4].] [TDD – The DRNS shall start transmission on the new RL immediately as specified in ref. [4].]

### 8.3.4.2 Successful Operation



**Figure 10: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation**

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION PREPARE message to the DRNC.

Upon reception, the DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

The DRNS shall prioritise resource allocation for the RL(s) to be modified according to Annex A.

#### **DCH Modification:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs to Modify* IEs then the DRNS shall treat them each as follows:

- If the *DCHs to Modify* IE includes multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCHs to Modify* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCHs to Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs to Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs to Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCH Specific Info* IE includes the *Frame Handling Priority* IE for a DCH to be modified, the DRNS should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.
- If the *DCH Specific Info* IE includes the *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCH Specific Info* IE includes the *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- [FDD - If, in the *DCH Specific Info* IE, the *DRAC Control* IE is present and set to "requested" for at least one DCH and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE for the FACH where the DRAC information is sent, for each Radio Link established in a cell where DRAC is active. If the DRNS does not support DRAC, DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]
- [TDD - If the *DCH Specific Info* IE includes the *CCTrCH ID* IE for the UL, the DRNS shall map the DCH onto the referenced UL CCTrCH.]

- [TDD - If the *DCH Specific Info* IE includes the *CCTrCH ID* IE for the DL, the DRNS shall map the DCH onto the referenced DL CCTrCH.]
- If the *DCH Specific Info* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

#### **DCH Addition:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCHs to Add* IEs then the DRNS shall treat them each as follows:

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.
- If the *DCHs to Add* IE includes a *DCHs to Add* IE with multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCHs to Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- [FDD - For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [4]. If the *QE-Selector* is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [4].]
- [FDD - For a set of co-ordinated DCHs the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [4]. [FDD - If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [4]. If all DCHs have *QE-Selector* IE set to "non-selected" the Physical channel BER shall be used for the QE, ref. [4].]
- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.
- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD - The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if at least one DSCH or USCH exists in the new configuration.]
- [FDD - If the *DRAC Control* IE is set to "requested" in the *DCH Specific Info* IE for at least one DCH and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY

message the *Secondary CCPCH Info* IE for the FACH where the DRAC information is sent, for each Radio Link supported by a cell where DRAC is active. If the DRNS does not support DRAC, the DRNS shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]

- If the *DCH Specific Info* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the downlink of the DCH.
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

#### DCH Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DCH to Delete*, the DRNS shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the DRNS shall not include this set of co-ordinated DCHs in the new configuration.

#### Physical Channel Modification:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes an *UL DPCH Information* IE then the DRNS shall apply the parameters to the new configuration as follows: ]

- [FDD - If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the DRNS shall apply this Uplink Scrambling Code to the new configuration.]
- [FDD - If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the DRNS shall apply the new Min UL Channelisation Code Length in the new configuration. The DRNS shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]
- [FDD - If the *UL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the UL when reserving resources for the uplink of the new configuration. The DRNS shall apply the new *TFCS* in the Uplink of the new configuration.]
- [FDD - If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, the DRNS shall apply the new Uplink *DPCCH Slot Format* to the new configuration.]
- [FDD – If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the DRNS shall set the UL inner loop power control to the UL SIR target when the new configuration is being used.]
- [FDD – If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the DRNS shall apply the value in the uplink of the new configuration.]
- [FDD - If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the DRNS shall apply diversity according to the given value.]
- [FDD – If the *UL DPCH Information* IE includes an *SSDT Cell Identity Length* IE and/or an *S-Field Length* IE, the DRNS shall apply the values in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL DPCH Information* IE then the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD - If the *DL DPCH Information IE* includes *Number of DL Channelisation Codes IE*, the DRNS shall allocate given number of Downlink Channelisation Codes per Radio Link and apply the new Downlink Channelisation Code(s) to the new configuration. Each Downlink Channelisation Code allocated for the new configuration shall be included as a FDD DL Channelisation Code Number IE in the RADIO LINK RECONFIGURATION READY message when sent to the SRNC. If some Transmission Gap Pattern sequences using 'SF/2' method are already initialised in the DRNS, DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information IE* in the RADIO LINK RECONFIGURATION READY message in case the DRNS selects to change the Scrambling code change method for one or more DL Channelisation Code.]
- [FDD – When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When  $p$  number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to “*PhCH number 1*”, the second to “*PhCH number 2*”, and so on until the  $p$ th to “*PhCH number p*”.]
- [FDD - If the *DL DPCH Information IE* includes the *TFCS IE*, the DRNS shall use the *TFCS IE* for the DL when reserving resources for the downlink of the new configuration. The DRNS shall apply the new TFCS in the Downlink of the new configuration.]
- [FDD – If the *DL DPCH Information IE* includes the *DL DPCH Slot Format IE*, the DRNS shall apply the new slot format used in DPCH in DL.]
- [FDD – If the *DL DPCH Information IE* includes the *TFCI Signalling Mode IE*, the DRNS shall apply the new signalling mode of the TFCI.]
- [FDD – If the *DL DPCH Information IE* includes the *Multiplexing Position IE*, the DRNS shall apply the new parameter to define whether fixed or flexible positions of transport channels shall be used in the physical channel.]
- [FDD – If the *DL DPCH Information IE* includes the *Limited Power Increase IE* and the IE is set to 'Used', the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD – If the *DL DPCH Information IE* includes the *Limited Power Increase IE* and the IE is set to 'Not Used', the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information IE*, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or last Radio Link is deleted.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information IE* and the *Downlink Compressed Mode Method IE* in one or more Transmission Gap Pattern Sequence within the *Transmission Gap Pattern Sequence Information IE* is set to 'SF/2', the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information IE* to the RADIO LINK RECONFIGURATION READY message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not].

#### [TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCTrCH to Modify* IEs or *DL CCTrCH to Modify* IEs, then the DRNS shall treat them each as follows:]

[TDD - If any of the *UL CCTrCH to Modify* IEs or *DL CCTrCH to Modify* IEs includes any of *TFCS IE*, *TFCI coding IE*, *Puncture limit IE*, or *TPC CCTrCH ID* IEs the DRNS shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

- [TDD – The DRNC shall include in the RADIO LINK RECONFIGURATION READY message DPCH information to be modified and the IEs modified if any of *Repetition Period IE*, *Repetition Length IE*, *TDD DPCH Offset IE* or timeslot information was modified. The DRNC shall include timeslot information and the IEs modified if any of [*3.84Mcps TDD - Midamble Shift and Burst Type IE*, *Time Slot IE*], [*1.28Mcps TDD - Midamble Shift LCR IE*, *Time Slot LCR IE*], *TFCI Presence IE* or Code information was modified. The DRNC shall include code information if [*3.84Mcps TDD - TDD Channelisation Code IE*] and/or [*1.28Mcps TDD - TDD Channelisation Code LCR IE*] was modified.]



- [1.28Mcps TDD – If the *UL CCH to Modify* IE includes the *UL SIR Target* IE, the DRNS shall use the value for the UL inner loop power control according [12] and [22] when the new configuration is being used.]

#### [TDD – UL/DL CCH Addition]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCH to Add* IEs or *DL CCH to Add* IEs, the DRNS shall include this CCH in the new configuration.]

[TDD – If the DRNS has reserved the required resources for any requested DPCHs, the DRNC shall include the DPCH information within DPCH to be added in the RADIO LINK RECONFIGURATION READY message. [3.84Mcps TDD - If no DPCH was active before the reconfiguration, and if a valid Rx Timing Deviation measurement is known in DRNC, then the DRNC shall include the *Rx Timing Deviation* IE in the RADIO LINK RECONFIGURATION READY message.]]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes a *DL CCH to Add* IE, the DRNS shall set the TPC step size of that CCH to the same value as the lowest numbered DL CCH in the current configuration.]

[1.28Mcps TDD – The DRNS shall use the *UL SIR Target* IE in the *UL CCH to Add* IE as the UL SIR value for the inner loop power control for this CCH according [12] and [22] in the new configuration.]

#### [TDD – UL/DL CCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any *UL CCH to Delete* IEs or *DL CCH to Delete* IEs, the DRNS shall remove this CCH in the new configuration.]

#### SSDT Activation/Deactivation:

- [FDD - If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT Active in the UE", the DRNS shall activate SSDT, if supported, using the *SSDT Cell Identity* IE in *RL Information* IE, and the *SSDT Cell Identity Length* IE in *UL DPCH Information* IE, in the new configuration.
- [FDD - If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT not Active in the UE", the DRNS shall deactivate SSDT in the new configuration.]

#### DSCH Addition/Modification/Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH to modify*, *DSCH to add* or *DSCH to delete* IEs, then the DRNS shall use this information to add/modify/delete the indicated DSCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH to Add* IE, then the DRNS shall use the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE and *TrCH Source Statistics Descriptor* IE to define a set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.

[FDD - If the *DSCHs to Add* IE includes the *Enhanced DSCH PC* IE, the DRNS shall activate enhanced DSCH power control in accordance with ref. [10] subclause 5.2.2, if supported, using either:]

- [FDD - the *SSDT Cell Identity for EDSCHPC* IE in the *RL Information* IE, if the *SSDT Cell Identity* IE is not included in the *RL Information* IE or]
- [FDD - the *SSDT Cell Identity* IE in the *RL Information* IE, if both the *SSDT Cell Identity* IE and the *SSDT Cell Identity for EDSCHPC* are included in the *RL Information* IE.]

[FDD - together with the *SSDT Cell Identity Length* IE in *UL DPCH Information* IE, and *Enhanced DSCH PC* IE, in the new configuration.]

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH to Modify* IE, then the DRNS shall treat them each as follows:

- [FDD – If the *DSCH to Modify* IE includes any *DSCH Info* IEs, then the DRNS shall treat them each as follows:]
  - [FDD – If the *DSCH Info* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DNRS shall use them to update the set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]

- [FDD – If the *DSCH Info* IE includes any of the *Transport Format Set* IE or *BLER* IE, the DRNS shall apply the parameters to the new configuration.]
- [FDD – If the *DSCH to Modify* IE includes the *PDSCH RL ID* IE, then the DRNS shall use it as the new DSCH RL identifier.]
- [FDD – If the *DSCH to Modify* IE includes the *Transport Format Combination Set* IE, then the DRNS shall use it as the new Transport Format Combination Set associated with the DSCH.]
- [TDD – If the *DSCHs to Modify* IE includes the *CCTrCH Id* IE, then the DRNS shall map the DSCH onto the referenced DL CCTrCH.]
- [TDD – If the *DSCHs to Modify* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DRNS shall use them to update the set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]
- [TDD – If the *DSCHs to Modify* IE includes any of the *Transport Format Set* IE or *BLER* IE, the DRNS shall apply the parameters to the new configuration.]
- [TDD – The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a DSCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]
- [FDD - If the *DSCHs to Modify* IE includes the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC Active in the UE ", the DRNS shall activate enhanced DSCH power control in accordance with ref. [10] subclause 5.2.2, if supported, using either:]
  - [FDD - the *SSDT Cell Identity for EDSCHPC* IE in *RL Information* IE, if the *SSDT Cell Identity* IE is not included in the *RL Information* IE or]
  - [FDD - the *SSDT Cell Identity* IE in the *RL Information* IE, if both the *SSDT Cell Identity* IE and the *SSDT Cell Identity for EDSCHPC* are included in the *RL Information* IE.]

[FDD - together with the *SSDT Cell Identity Length* IE in *UL DPCH Information* IE, and *Enhanced DSCH PC* IE, in the new configuration.]
- [FDD - If the *DSCHs to Modify* IE includes the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC not Active in the UE", the DRNS shall deactivate enhanced DSCH power control in the new configuration.]

If the requested modifications are allowed by the DRNS and the DRNS has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message.

#### [TDD] USCH Addition/Modification/Deletion

If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH to modify*, *USCH to add* or *USCH to delete* IEs, then the DRNS shall use this information to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.

If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH to Add* IE, then, the DRNS shall use the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE and *TrCH Source Statistics Descriptor* IE to define a set of USCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.

If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH to Modify* IE, then the DRNS shall treat them each as follows:

- If the *USCH to Modify* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DRNS shall use them to update the set of USCH Priority classes.
- If the *USCH to Modify* IE includes any of the *CCTrCH Id* IE, *Transport Format Set* IE, *BLER* IE or *RB Info* IE, the DRNS shall apply the parameters to the new configuration.
- [TDD - The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a USCH is added and at least one DCH exists in the new

configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

If the requested modifications are allowed by the DRNC and the DRNC has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message.

### General

The DRNS shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the DCHs in the set of co-ordinated DCHs.

In case of a Radio Link being combined with another Radio Link within the DRNS, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the combined Radio Links.

Any allowed rate for the uplink of a DCH provided for the old configuration will not be valid for the new configuration. If the DRNS need to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include the *Allowed UL Rate* IE of the *Allowed Rate Information* IE in the *DCH Information Response* IE for this DCH in the RADIO LINK RECONFIGURATION READY message for this Radio Link.

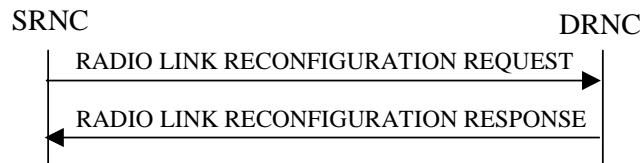
Any allowed rate for the downlink of a DCH provided for the old configuration will not be valid for the new configuration. If the DRNS need to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include the *Allowed DL Rate* IE of the *Allowed Rate Information* IE in the *DCH Information Response* IE for this DCH in the RADIO LINK RECONFIGURATION READY message for this Radio Link.

If the requested modifications are allowed by the DRNS, and the DRNS has successfully reserved the required resources for the new configuration of the Radio Link(s) it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message. When this procedure has been completed successfully there exist a Prepared Reconfiguration, as defined in subclause 3.1.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s) and shall return this in the *Maximum Uplink SIR* IE and *Minimum Uplink SIR* IE for each Radio Link in the RADIO LINK RECONFIGURATION READY message.

If the DL TX power upper or lower limit has been re-configured the DRNC shall return this in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE respectively in the RADIO LINK RECONFIGURATION RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power IE* or lower than indicated by the *Minimum DL TX Power IE* on any DL DPCH of the RL [FDD – except during compressed mode, when the  $P_{SIR}(k)$ , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k.]

### 8.3.7.2 Successful Operation



**Figure 14: Unsynchronised Radio Link Reconfiguration procedure, Successful Operation**

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the SRNC by sending the RADIO LINK RECONFIGURATION REQUEST message to the DRNC.

Upon reception, the DRNS shall modify the configuration of the Radio Link(s) according to the parameters given in the message. Unless specified below, the meaning of parameters is specified in other specifications.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request the time corresponding to the value of the *Allowed Queuing Time* IE before starting to execute the request.

The DRNS shall prioritise resource allocation for the RL to be modified according to Annex A.

#### **DCH Modification:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs to Modify* IEs, then the DRNS shall treat them as follows:

- If the *DCHs to Modify* IE includes multiple *DCH Specific Info* IEs, then the DRNS shall treat the DCHs as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCHs to Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs to Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs to Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCH Specific Info* IE includes on the *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCH Specific Info* IE includes on the *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCH Specific Info* IE includes the *Frame Handling Priority* IE, the DRNS should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.
- [FDD - If the *DRAC Control* IE is present and set to "requested" in *DCH Specific Info* IE for at least one DCH, and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE for the FACH where the DRAC information is sent, for each Radio Link supported by a cell where DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [TDD - If the *DCH Specific Info* IE includes the *CCTrCH ID* IE for the UL, the DRNS shall map the DCH onto the referenced UL CCTrCH.]

- [TDD - If the *DCH Specific Info* IE includes the *CCTrCH ID* IE for the DL, the DRNS shall map the DCH onto the referenced DL CCTrCH.]
- If the *DCH Specific Info* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user in the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

#### **DCH Addition:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCHs to Add* IEs, then the DRNS shall treat them each as follows:

- The DRNS shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCH in the new configuration.
- If the *DCHs to Add* IE includes multiple DCH Specific Info IEs then the DRNS shall treat the DCHs in the *DCHs to Add* IE as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if all of them can be in the new configuration.
- [FDD - For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [4]. If the *QE-Selector* is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [4].]
- For a set of co-ordinated DCHs the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [4]. [FDD - If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [4]. If all DCHs have *QE-Selector* IE set to "non-selected" the Physical channel BER shall be used for the QE, ref. [4].]
- The DRNS should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.
- The DRNS shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [FDD - If the *DRAC Control* IE is set to "requested" in *DCH Specific Info* IE for at least one DCH, and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE for the FACH where the DRAC information is sent, for each Radio Link supported by a cell where DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.

- If the *DCH Specific Info* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.
  - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

#### **DCH Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCH to delete* IE, the DRNS shall not include the referenced DCHs in the new configuration.

If all of the DCHs belonging to a set of co-ordinated DCHs are requested to be deleted, the DRNS shall not include this set of co-ordinated DCHs in the new configuration.

#### **Physical Channel Modification:**

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes an *UL DPCH Information* IE, then the DRNS shall apply the parameters to the new configuration as follows: ]

- [FDD - If the *UL DPCH Information* IE includes the *TFCS* IE for the UL, the DRNS shall apply the new TFCS in the Uplink of the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes a *DL DPCH Information* IE, then the DRNS shall apply the parameters to the new configuration as follows:]

- [FDD - If the *DL DPCH Information* IE includes the *TFCS* IE for the DL, the DRNS shall apply the new TFCS in the Downlink of the new configuration.]
- [FDD - If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE for the DL, the DRNS shall apply the new TFCI Signalling Mode in the Downlink of the new configuration.]
- [FDD – If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to 'Used', the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD – If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to 'Not Used', the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode configuration This new Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or last Radio Link is deleted.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, and if the *Downlink Compressed Mode Method* in one or more Transmission Gap Pattern Sequence within the *Transmission Gap Pattern Sequence Information* IE is set to 'SF/2', the DRNC shall include the *DL Code Information* IE in the RADIO LINK RECONFIGURATION RESPONSE message, without changing any of the DL Channelisation Codes or DL Scrambling Codes, indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

#### **[TDD - UL/DL CCH Modification]**

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCH Information to modify* IEs or *DL CCH Information to modify* IEs and it includes *TFCS* IE, the DRNS shall apply the included *TFCS* IE as the new value to the referenced CCH.]

**[TDD – UL/DL CCH Deletion]**

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCH Information to delete* IEs or *DL CCH Information to delete* IEs, the DRNS shall remove the referenced CCH in the new configuration.]

**General:**

The DRNS shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. The detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1.

In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur, the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE shall be included only for one of the DCHs in the set of co-ordinated DCHs.

In case of a Radio Link being combined with another Radio Link within the DRNS, the DRNC shall return the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message only for one of the combined Radio Links.

Any allowed rate for the uplink of a DCH provided for the old configuration will not be valid for the new configuration. If the DRNS need to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include the *Allowed UL Rate* IE of the *Allowed Rate Information* IE in the *DCH Information Response* IE for this DCH in the RADIO LINK RECONFIGURATION RESPONSE message for this Radio Link.

Any allowed rate for the downlink of a DCH provided for the old configuration will not be valid for the new configuration. If the DRNS need to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) in the new configuration for a Radio Link, the DRNC shall include the *Allowed DL Rate* IE of the *Allowed Rate Information* IE in the *DCH Information Response* IE for this DCH in the RADIO LINK RECONFIGURATION RESPONSE message for this Radio Link.

If the requested modifications are allowed by the DRNS, and if the DRNS has successfully allocated the required resources and changed to the new configuration, the DRNC shall respond to the SRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

The DRNS decides the maximum and minimum SIR for the uplink of the Radio Link(s), and the DRNC shall return this in the IEs *Maximum Uplink SIR* and *Minimum Uplink SIR* for each Radio Link in the RADIO LINK RECONFIGURATION RESPONSE message.

If the DL TX power upper or lower limit has been re-configured, the DRNC shall return this in the *Maximum DL TX Power* IE and *Minimum DL TX Power* IE respectively in the RADIO LINK RECONFIGURATION READY message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power IE* or lower than indicated by the *Minimum DL TX Power IE* on any DL DPCH of the RL [FDD – except during compressed mode, when the  $P_{SIR(k)}$  , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k].

## CHANGE REQUEST

⌘ **25.423 CR 562** ⌘ ev **1** ⌘ Current version: **4.3.0** ⌘

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  Core Network

<b>Title:</b>	⌘ Modification of the T <sub>utran-gps</sub> length		
<b>Source:</b>	⌘ EricssonR-WG3		
<b>Work item code:</b>	⌘ TEI	<b>Date:</b>	⌘ January, 2002
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ REL-4
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900.		Use <u>one</u> 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)

<b>Reason for change:</b>	⌘ It is generally acknowledged that long integers could cause problems with regards to e.g. hardware support in many commonly used tools. Regarding this issue, it was decided in the past to adopt the general principle of limiting integers length to 32 bits. As the T <sub>utran-gps</sub> does not comply to this principle a correction is needed.
<b>Summary of change:</b>	⌘ The length of the T <sub>utran-gps</sub> IE is modified so that the 64-bit integer is coded by means of two 32-bit integers.
<b>Consequences if not approved:</b>	⌘ The presence of a 64-bit integer could cause support problems in many commonly used tools.  Impact Analysis: Impact assessment towards the previous version of the specification (same release):  This CR has impact on the previous version of the specification (same release) under protocol point of view, because the coding of one IE was modified. The impact can be considered isolated as it concerns part of one system function, namely the UE Positioning (for A-GPS and OTDOA only).  R1: the MS length was reduced because not necessary given the assumed values of the information element.

<b>Clauses affected:</b>	⌘ 9.2.1.59D, 9.3.4	
<b>Other specs affected:</b>	⌘ <input checked="" type="checkbox"/> Other core specifications	⌘ CR 601 NBAP
	<input type="checkbox"/> Test specifications	
	<input type="checkbox"/> O&M Specifications	
<b>Other comments:</b>	⌘	



### **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](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.

### 9.2.1.59D $T_{\text{UTRAN-GPS}}$ Measurement Value Information

The  $T_{\text{UTRAN-GPS}}$  *Measurement Value Information* IE indicates the measurement results related to the UTRAN GPS Timing of Cell Frame for LCS measurements.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
$T_{\text{UTRAN-GPS}}$ $T_{\text{UTRAN-GPS}}$	M	1	INTEGER(0..3715891199999)	Indicates the UTRAN GPS Timing of Cell Frame for LCS. According to mapping in [23] and [24]; <u>significant values range from 0 to 37158911999999.</u>
<u>&gt;MS</u>	<u>M</u>		INTEGER(0..16383)	<u>Most Significant Part</u>
<u>&gt;LS</u>	<u>M</u>		INTEGER(0..4294967295)	<u>Least Significant Part</u>
$T_{\text{UTRAN-GPS}}$ Quality	M		INTEGER(0..2^20-1)	Indicates the standard deviation of the $T_{\text{UTRAN-GPS}}$ measurements.
$T_{\text{UTRAN-GPS}}$ Drift Rate	M		INTEGER(-50..50)	Indicates the $T_{\text{UTRAN-GPS}}$ drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock.
$T_{\text{UTRAN-GPS}}$ Drift Rate Quality	M		INTEGER(0..50)	Indicates the standard deviation of the $T_{\text{UTRAN-GPS}}$ drift rate measurements.

## 9.3.4 Information Element Definitions

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

```
RNSAP-IEs {  
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)  
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-IEs (2) }
```

```
DEFINITIONS AUTOMATIC TAGS ::=
```

```
BEGIN
```

```
***UNCHANGED PARTS WERE REMOVED***
```

```
TUTRANGPS ::= SEQUENCE {  
ms-part INTEGER (0..16383),  
ls-part INTEGER (0..4294967295)  
}  
INTEGER (0..37158911999999)
```

```
***UNCHANGED PARTS WERE REMOVED***
```

## CHANGE REQUEST

⌘ **25.423**    **CR**    **567**    ⌘ rev **-**    ⌘ Current version: **4.3.0**    ⌘

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     Core Network

**Title:** ⌘ Amendment of the COMMON MEASUREMENT INITIATION REQUEST message

**Source:** ⌘ R-WG3

**Work item code:** ⌘ TEI

**Date:** ⌘ February 2002

**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:** ⌘ The tabulat format and the ASN.1 are not aligned w.r.t. the "Time Slot" IE in the COMMON MEASUREMENT INITIATION REQUEST message.

**Summary of change:** ⌘ A "Time Slot LCR" IE is introduced in the "COMMON MEASUREMENT INITIATION REQUEST" message in tabular format and ASN.1.

The Position of the Time Slot IE is changed to be aligned with NBAP in tabular format and added in ASN.1.

Impact Analysis:

Impact Assessment towards the previous version of the specification (same release):

This CR has isolated impact with the previous version of the specification (same release) because it affects the Common Measurement Initiation procedure only. This CR has an impact under functional point of view.

The impact can be considered isolated because the change affects one function.

**Consequences if not approved:** ⌘ If this CR is not approved, misalignment between tabular format and ASN.1 is remaining.

**Clauses affected:** ⌘ 8.5.2.4, 9.1.43, 9.2.1.41H, 9.3.3

**Other specs affected:** ⌘  Other core specifications    ⌘ 25.433 v4.3.0 CR606  
 Test specifications  
 O&M Specifications

**Other comments:** ⌘

Comprehensive information and tips about how to create CRs can be found at:  
[http://www.3gpp.org/3G\\_Specs/CRs.htm](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.

## 8.5.2 Common Measurement Initiation

*/\* partly omitted \*/*

### 8.5.2.4 Abnormal Conditions

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *SFN-SFN Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the RNC<sub>2</sub> shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *T<sub>UTRAN-GPS</sub> Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the RNC<sub>2</sub> shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the *Common Measurement Type* IE is set to 'UTRAN GPS Timing of Cell Frame for LCS', but the *T<sub>UTRAN-GPS</sub> Measurement Minimum Accuracy Class* IE in the *Common Measurement Accuracy* IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC<sub>2</sub> shall regard the Common Measurement Initiation procedure as failed.

If the Common Measurement Type received in the *Common Measurement Type* IE is not 'load', and if the Common Measurement Type received in the *Common Measurement Type* IE is not defined in ref. [11] or [15] to be measured on the Common Measurement Object Type received in the *Common Measurement Object Type* IE in the COMMON MEASUREMENT INITIATION REQUEST message the RNC<sub>2</sub> shall regard the Common Measurement Initiation procedure as failed.

If the *Common Measurement Type* IE is set to 'SFN-SFN Observed Time Difference', but the *Neighbouring Cell Measurement Information* IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC<sub>2</sub> shall regard the Common Measurement Initiation procedure as failed.

The allowed combinations of the Common measurement type and Report characteristics type are shown in the table below marked with "X". For not allowed combinations, the DRNS shall regard the Common Measurement Initiation procedure as failed.

**Table 4: Allowed Common measurement type and Report characteristics type combinations**

Common measurement type	Report characteristics type								
	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
Received total wide band power	X	X	X	X	X	X	X	X	
Transmitted Carrier Power	X	X	X	X	X	X	X	X	
UL Timeslot ISCP	X	X	X	X	X	X	X	X	
Load	X	X	X	X	X	X	X	X	
UTRAN GPS Timing of Cell Frames for LCS	X	X							X
SFN-SFN Observed Time Difference	X	X							X

[TDD - If the common measurement type requires the Time Slot Information but the [\[3.84Mcps TDD - Time Slot IE\]](#) [\[1.28Mcps TDD - Time Slot LCR IE\]](#) is not provided in the *Common Measurement Object Type* IE in the COMMON MEASUREMENT INITIATION REQUEST message the DRNS shall regard the Common Measurement Initiation procedure as failed.]

*/\* partly omitted \*/*

## 9.1.43 COMMON MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Measurement ID	M		9.2.1.37		YES	reject
Common Measurement Object Type	M		9.2.1.12B		YES	reject
CHOICE <i>Common Measurement Object Type</i>	M				YES	reject
>Cell					–	
>>UTRAN Cell Identifier	M		9.2.1.71		–	
>>Time Slot	O		9.2.1.56	3.84Mcps TDD only	=	
>>Time Slot LCR	O		9.2.3.12a	1.28Mcps TDD only	=	
>>Neighbouring Cell Measurement Information		0..<maxnoof MeasNCells >			–	
–>>>CHOICE Neighbouring Cell Measurement Information					=	
–>>>> Neighbouring FDD Cell Measurement Information				FDD only	=	
>>>> Neighbouring FDD Cell Measurement Information	M		9.2.1.41G		–	
–>>>> Neighbouring TDD Cell Measurement Information				3.84Mcps TDD only	=	
>>>> Neighbouring TDD Cell Measurement Information	M		9.2.1.41H		–	
>>Time Slot	O		9.2.1.56	TDD Only		
Common Measurement Type	M		9.2.1.12C		YES	reject
Measurement Filter Coefficient	O		9.2.1.41		YES	reject
Report Characteristics	M		9.2.1.48		YES	reject
SFN reporting indicator	M		FN reporting indicator 9.2.1.28A		YES	reject
SFN	O		9.2.1.52A		YES	reject
Common Measurement Accuracy	O		9.2.1.12A		YES	reject

Range bound	Explanation
<i>maxnoofMeasNCell</i>	Maximum number of neighbouring cells on which measurements can be performed.

/\* partly omitted \*/

### 9.2.1.41H Neighbouring TDD Cell Measurement Information

This IE provides information on the [3.84Mcps](#) TDD neighbouring cells used for the purpose of Measurements.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UTRAN Cell Identifier	M		9.2.1.71	
UARFCN	M		9.2.1.66	
Cell Parameter ID	M		9.2.1.8	
Time slot	O		9.2.1.56	
Midamble shift and burst type	O		9.2.3.4	

/\* partly omitted \*/



## 9.3.3 PDU Definitions

/\* partly omitted \*/

```

-- *****
--
-- COMMON MEASUREMENT INITIATION REQUEST
--
-- *****

CommonMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{CommonMeasurementInitiationRequest-IEs}},
    protocolExtensions   ProtocolExtensionContainer  {{CommonMeasurementInitiationRequest-Extensions}}    OPTIONAL,
    ...
}

CommonMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID      id-MeasurementID                CRITICALITY reject                TYPE      MeasurementID                PRESENCE mandatory
    } |
    { ID      id-CommonMeasurementObjectType-CM-Rqst    CRITICALITY reject                TYPE      CommonMeasurementObjectType-CM-Rqst    PRESENCE
    mandatory } |
    -- This IE represents both the Common Measurement Object Type IE and the choice based on the Common Measurement Object Type
    -- as described in the tabular message format in subclause 9.1.
    { ID      id-CommonMeasurementType          CRITICALITY reject                TYPE      CommonMeasurementType                PRESENCE mandatory
    } |
    { ID      id-MeasurementFilterCoefficient        CRITICALITY reject                TYPE      MeasurementFilterCoefficient        PRESENCE optional
    } |
    { ID      id-ReportCharacteristics              CRITICALITY reject                TYPE      ReportCharacteristics              PRESENCE mandatory
    } |
    { ID      id-SFNReportingIndicator              CRITICALITY reject                TYPE      FSNReportingIndicator              PRESENCE mandatory
    } |
    { ID      id-SFN                                CRITICALITY reject                TYPE      SFN                                PRESENCE optional
    } |
    { ID      id-CommonMeasurementAccuracy          CRITICALITY reject                TYPE      CommonMeasurementAccuracy          PRESENCE optional
    },
    ...
}

CommonMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonMeasurementObjectType-CM-Rqst ::= CHOICE {
    cell                Cell-CM-Rqst,
    ...
}

Cell-CM-Rqst ::= SEQUENCE {
    uC-ID                UC-ID,

```

```

timeSlot           TimeSlot           OPTIONAL,  --3.84Mcps TDD only
timeSlotLCR       TimeSlotLCR        OPTIONAL,  --1.28Mcps TDD only
neighbouringCellMeasurementInformation SEQUENCE (SIZE (1..maxNrOfMeasNCell)) OF
CHOICE {
    neighbouringFDDCellMeasurementInformation NeighbouringFDDCellMeasurementInformation,
    neighbouringTDDCellMeasurementInformation NeighbouringTDDCellMeasurementInformation,
    ...
},
iE-Extensions          ProtocolExtensionContainer { { CellItem-CM-Rqst-ExtIEs } } OPTIONAL,
...
}

CellItem-CM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

**/\* partly omitted \*/**

**CHANGE REQUEST**

⌘ **25.423** **CR** **576** ⌘ rev **2** ⌘ Current version: **4.3.0** ⌘

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  Core Network

<b>Title:</b>	⌘ Load Value Extension
<b>Source:</b>	⌘ R-WG3
<b>Work item code:</b>	⌘ TEI <span style="float: right;"><b>Date:</b> ⌘ Feb 2002</span>
<b>Category:</b>	⌘ <b>F</b> <span style="float: right;"><b>Release:</b> ⌘ REL-4</span>
<p>Use <u>one</u> of the following categories:</p> <p><b>F</b> (essential correction)  <b>A</b> (corresponds to a correction in an earlier release)  <b>B</b> (Addition of feature),  <b>C</b> (Functional modification of feature)  <b>D</b> (Editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP TR 21.900.</p> <p>Use <u>one</u> of the following releases:</p> <p><b>2</b> (GSM Phase 2)  <b>R96</b> (Release 1996)  <b>R97</b> (Release 1997)  <b>R98</b> (Release 1998)  <b>R99</b> (Release 1999)  <b>REL-4</b> (Release 4)  <b>REL-5</b> (Release 5)</p>	

<b>Reason for change:</b>	⌘ In the 3GPP RAN WG3/GERAN Joint Meeting on RRM (11-12 Feb, Malaga, Spain), it was agreed that the range of the Load measurement type should be extended in Rel'4 RNSAP specification.
<b>Summary of change:</b>	⌘ Rev.2 1. Clarification of load value definition  Rev.1 1. Cover page & header correction  - Extension of the range of the Load Measurement Value from INTEGER (0..9) to INTEGER (0..100). - Alignment of the Measurement Threshold and Measurement Increase/Decrease Thresholds with this new definition of the Load Measurement Value.
<b>Consequences if not approved:</b>	⌘ If this CR is not approved, Load measurement in common measurement procedure will not have sufficient values and granularity that is useful for RRM.  <u>Impact Analysis:</u> Impact assessment towards the previous version of the specification (same release): This CR doesn't have isolated impact with the previous version of the specification (same release) because this affects only Common Measurement procedure on Load measurement type.

<b>Clauses affected:</b>	⌘	9.2.1.33A, 9.2.1.38, 9.2.1.39, 9.3.4	
<b>Other specs affected:</b>	⌘	<input type="checkbox"/> Other core specifications	⌘
		<input type="checkbox"/> Test specifications	
		<input type="checkbox"/> O&M Specifications	
<b>Other comments:</b>	⌘		

**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](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.

### 9.2.1.33A Load Value

The *Load Value* IE contains the load [on the measured object relative to the maximum planned load](#) for both the uplink and downlink.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Load Value	M		INTEGER(0..9100)	Value 0 shall indicate the minimum load, and 9100 shall indicate the maximum load. Load should be measured on a linear scale.
Downlink Load Value	M		INTEGER(0..9100)	Value 0 shall indicate the minimum load, and 9100 shall indicate the maximum load. Load should be measured on a linear scale.

### 9.2.1.38 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

IE/ Group Name	Presence	Range	IE Type and Reference	Semantics Description
<i>CHOICE Measurement Increase/Decrease Threshold</i>				
> <i>SIR</i>				
>> <i>SIR</i>	M		INTEGER(0..62)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 62: 31dB
> <i>SIR Error</i>				FDD Only
>> <i>SIR Error</i>	M		INTEGER(0..124)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 124: 62 dB
> <i>Transmitted Code Power</i>				
>> <i>Transmitted Code Power</i>	M		INTEGER(0..112,...)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 112: 56 dB
> <i>RSCP</i>				TDD Only
>> <i>RSCP</i>	M		INTEGER(0..126)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 126: 63 dB
> <i>Round Trip Time</i>				FDD Only
>> <i>Round Trip Time</i>	M		INTEGER(0..32766)	0: 0 chips 1: 0.0625 chips 2: 0.1250 chips ... 32766: 2047.875 chips
> <i>Load</i>				
>> <i>Load</i>	M		INTEGER(0..9100)	Units are the same as for the Uplink Load Value IE and Downlink Load Value IE.
> <i>Transmitted Carrier Power</i>				
>> <i>Transmitted Carrier Power</i>	M		INTEGER(0..100)	According to mapping in [23] and [24].
> <i>Received Total Wide Band Power</i>				
>> <i>Received Total Wide Band Power</i>	M		INTEGER(0..620)	0: 0dB 1: 0.1dB 2: 0.2dB ... 620: 62dB
> <i>UL Timeslot ISCP</i>				TDD Only
>> <i>UL Timeslot ISCP</i>	C-Threshold		INTEGER(0..126)	0: 0dB 1: 0.5dB 2: 1dB ... 126: 63dB

### 9.2.1.39 Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event A, B, E, F or On Modification.

IE/ Group Name	Presence	Range	IE Type and Reference	Semantics Description
<i>CHOICE Measurement Threshold</i>				
> <i>SIR</i>				
>> <i>SIR</i>	M		INTEGER(0..63)	According to mapping in ref. [23] and [24].
> <i>SIR Error</i>				FDD Only
>> <i>SIR Error</i>	M		INTEGER(0..125)	According to mapping in [23]
> <i>Transmitted Carrier Power</i>				
>> <i>Transmitted Code Power</i>	M		INTEGER(0..127)	According to mapping in ref. [23] and [24].
> <i>RSCP</i>				TDD Only
>> <i>RSCP</i>	M		INTEGER(0..127)	According to mapping in ref. [24]
> <i>Rx Timing Deviation</i>				TDD Only
>> <i>Rx Timing Deviation</i>	M		INTEGER(0..8191)	According to mapping in [24]
> <i>Round Trip Time</i>				FDD Only
>> <i>Round Trip Time</i>	M		INTEGER(0..32767)	According to mapping in [23]
> <i>T<sub>UTRAN-GPS</sub> Measurement Threshold Information</i>				
>> <i>T<sub>UTRAN-GPS</sub> Measurement Threshold Information</i>	M		9.2.1.59C	
> <i>SFN-SFN Measurement Threshold Information</i>				
>> <i>SFN-SFN Measurement Threshold Information</i>	M		9.2.1.52B	
> <i>Load</i>				
>> <i>Load</i>	M		INTEGER(0..9100)	0 is the minimum indicated load, and 9100 is the maximum indicated load.
> <i>Transmitted Carrier Power</i>				
>> <i>Transmitted Carrier Power</i>	M		INTEGER(0..100)	According to mapping in [23] and [24].
> <i>Received Total Wide Band Power</i>				
>> <i>Received Total Wide Band Power</i>	M		INTEGER(0..621)	According to mapping in [23] and [24].
> <i>UL Timeslot ISCP</i>				TDD Only
>> <i>UL Timeslot ISCP</i>	M		INTEGER(0..127)	According to mapping in [24]



## 9.3 Message and Information element abstract syntax (with ASN.1)

### 9.3.4 Information Element Definitions

•  
•  
•  
<Parts of the ASN.1 module is omitted>  
•  
•

| Load-Value-IncrDecrThres ::= INTEGER(0..9100)

| Load-Value ::= INTEGER(0..9100)

| LoadValue ::= SEQUENCE {  
|     uplinkLoadValue     INTEGER(0..9100),  
|     downlinkLoadValue   INTEGER(0..9100)  
| }

•  
•  
•  
<Parts of the ASN.1 module is omitted>  
•  
•

## CHANGE REQUEST

⌘ **25.423 CR 588** ⌘ rev **-** ⌘ Current version: **4.3.0** ⌘

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  Core Network

<b>Title:</b>	⌘ The correction on duplicated allocation of ProtocolIE-ID		
<b>Source:</b>	⌘ R-WG3		
<b>Work item code:</b>	⌘ TEI	<b>Date:</b>	⌘ February, 2002
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ REL4
	<p>Use <u>one</u> of the following categories:</p> <p><b>F</b> (correction)</p> <p><b>A</b> (corresponds to a correction in an earlier release)</p> <p><b>B</b> (addition of feature),</p> <p><b>C</b> (functional modification of feature)</p> <p><b>D</b> (editorial modification)</p> <p>Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a>.</p>		<p>Use <u>one</u> of the following releases:</p> <p>2 (GSM Phase 2)</p> <p>R96 (Release 1996)</p> <p>R97 (Release 1997)</p> <p>R98 (Release 1998)</p> <p>R99 (Release 1999)</p> <p>REL-4 (Release 4)</p> <p>REL-5 (Release 5)</p>

<b>Reason for change:</b>	<p>⌘ In 9.3.6 constant definition in ASN.1,</p> <ul style="list-style-type: none"> <li>the same ProtocolIE-ID number(34) is allocated to “id-DCH-FDD-Information” and “id-EnhancedDSCHPCIndicator”.</li> <li>the same ProtocolIE-ID number(35) is allocated to “id-DCH-TDD-Information” and “id-SSDT-CellIDforEDSCHPC”.</li> </ul> <p>Because “id-DCH-FDD-Information” and “id-DCH-TDD-Information” are present in both R99 and REL4 specifications, the identifier of “id-EnhancedDSCHPCIndicator” and “id-SSDT-CellIDforEDSCHPC” shall be re-allocated.</p>
<b>Summary of change:</b>	<p>⌘ The ProtocolIE-ID of “id-EnhancedDSCHPCIndicator” is changed to 225 and the ProtocolIE-ID of “id-SSDT-CellIDforEDSCHPC” is changed to 246</p> <p>Impact Analysis:</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 (same release) because the identifiers of “id-EnhancedDSCHPCIndicator” and “id-SSDT-CellIDforEDSCHPC” was changed.</p> <p>This CR has an impact under protocol point of view. The impact can be considered isolated because the change affects identifiers of “id-EnhancedDSCHPCIndicator” and “id-SSDT-CellIDforEDSCHPC”.</p>
<b>Consequences if not approved:</b>	<p>⌘ If this CR is not approved, the same protocolIE-ID for different IEs exists in ASN.1. Therefore the receiver cannot know what IE was sent.</p>

<b>Clauses affected:</b>	⌘	9.3.6
<b>Other specs affected:</b>	⌘	<input type="checkbox"/> Other core specifications <input type="checkbox"/> Test specifications <input type="checkbox"/> O&M Specifications
<b>Other comments:</b>	⌘	This error does not appear in R99 specification.

**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](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.

## 9.3.6 Constant Definitions

```

-- *****
--
-- Constant definitions
--
-- *****

RNSAP-Constants {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-Constants (4) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

IMPORTS
    ProcedureCode,
    ProtocolIE-ID
FROM RNSAP-CommonDataTypes;

```

**/\* partially omitted \*/**

```

-- *****
--
-- IEs
--
-- *****

id-AllowedQueuingTime                ProtocolIE-ID ::= 4
id-Allowed-Rate-Information           ProtocolIE-ID ::= 42
id-BindingID                         ProtocolIE-ID ::= 5
id-C-ID                              ProtocolIE-ID ::= 6
id-C-RNTI                            ProtocolIE-ID ::= 7
id-CFN                               ProtocolIE-ID ::= 8
id-CN-CS-DomainIdentifier            ProtocolIE-ID ::= 9
id-CN-PS-DomainIdentifier            ProtocolIE-ID ::= 10
id-Cause                             ProtocolIE-ID ::= 11
id-CriticalityDiagnostics            ProtocolIE-ID ::= 20
id-D-RNTI                            ProtocolIE-ID ::= 21
id-D-RNTI-ReleaseIndication          ProtocolIE-ID ::= 22
id-DCHs-to-Add-FDD                  ProtocolIE-ID ::= 26
id-DCHs-to-Add-TDD                  ProtocolIE-ID ::= 27
id-DCH-DeleteList-RL-ReconfPrepFDD  ProtocolIE-ID ::= 30
id-DCH-DeleteList-RL-ReconfPrepTDD  ProtocolIE-ID ::= 31
id-DCH-DeleteList-RL-ReconfRqstFDD  ProtocolIE-ID ::= 32
id-DCH-DeleteList-RL-ReconfRqstTDD  ProtocolIE-ID ::= 33
id-DCH-FDD-Information               ProtocolIE-ID ::= 34
id-DCH-TDD-Information               ProtocolIE-ID ::= 35

```

**/\* partially omitted \*/**

```

id-EnhancedDSCHPC                    ProtocolIE-ID ::= 29
id-EnhancedDSCHPCIndicator            ProtocolIE-ID ::= 34225
id-GA-Cell                            ProtocolIE-ID ::= 232
id-GA-CellAdditionalShapes            ProtocolIE-ID ::= 3
id-SSDT-CellIDforEDSCHPC             ProtocolIE-ID ::= 35246
id-Transmission-Gap-Pattern-Sequence-Information ProtocolIE-ID ::= 255
id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD ProtocolIE-ID ::= 256
id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD ProtocolIE-ID ::= 257
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ProtocolIE-ID ::= 258
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ProtocolIE-ID ::= 259
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ProtocolIE-ID ::= 260
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ProtocolIE-ID ::= 261
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ProtocolIE-ID ::= 262
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ProtocolIE-ID ::= 263
id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ProtocolIE-ID ::= 264
id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD ProtocolIE-ID ::= 265

```

**/\* partially omitted \*/**

## CHANGE REQUEST

⌘ **25.423 CR 589** ⌘ ev  ⌘ Current version: **4.3.0** ⌘

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  Core Network

<b>Title:</b>	⌘ Enhanced DSCH and syntax error ASN.1 correction		
<b>Source:</b>	⌘ R-WG3		
<b>Work item code:</b>	⌘ TEI	<b>Date:</b>	⌘ February 2002
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ Rel-4
	Use <u>one</u> of the following categories: <b>F</b> (correction) <b>A</b> (corresponds to a correction in an earlier release) <b>B</b> (addition of feature), <b>C</b> (functional modification of feature) <b>D</b> (editorial modification) Detailed explanations of the above categories can be found in 3GPP <a href="#">TR 21.900</a> .		Use <u>one</u> 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)

<b>Reason for change:</b>	⌘ EnhancedDSCHPCIndicator and EnhancedDSCHPC are placed in wrong extension container.  In addition a bracket is missing in the definition of the SFNSFNTimeStamp-TDD.
<b>Summary of change:</b>	⌘ The above IE were moved to the DSCH-Modify-RL-ReconfPrepFDD-ExtIEs extension container  SFNSFNTimeStamp-TDD definition was corrected.
<b>Consequences if not approved:</b>	⌘ If this CR is not approved, this error will remain. <u>Impact Analysis:</u> Impact assessment towards the previous version of the specification (same release): The CR has isolated impact. The impact is isolated to the Enhanced DSCH feature introduced in Rel-4. However, the missing the bracket causes syntax error which affects the whole RNSAP specification.

<b>Clauses affected:</b>	⌘ 9.3.3 and 9.3.4		
<b>Other specs affected:</b>	⌘ <input type="checkbox"/> Other core specifications	⌘	
	<input type="checkbox"/> Test specifications		
	<input type="checkbox"/> O&M Specifications		
<b>Other comments:</b>	⌘		

**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](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.

### 9.3.3 PDU Definitions

-- Not affected parts are omitted.

```

-- *****
--
-- RADIO LINK RECONFIGURATION PREPARE FDD
--
-- *****

RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
    protocolIEs                ProtocolIE-Container    {{RadioLinkReconfigurationPrepareFDD-IEs}},
    protocolExtensions         ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareFDD-Extensions}}
OPTIONAL,
    ...
}

RadioLinkReconfigurationPrepareFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject  TYPE AllowedQueuingTime          PRESENCE optional } |
    { ID id-UL-DPCH-Information-RL-ReconfPrepFDD          CRITICALITY reject  TYPE UL-DPCH-Information-RL-ReconfPrepFDD          PRESENCE optional } |
    { ID id-DL-DPCH-Information-RL-ReconfPrepFDD          CRITICALITY reject  TYPE DL-DPCH-Information-RL-ReconfPrepFDD          PRESENCE optional } |
    { ID id-FDD-DCHs-to-Modify          CRITICALITY reject  TYPE FDD-DCHs-to-Modify          PRESENCE optional } |
    { ID id-DCHs-to-Add-FDD             CRITICALITY reject  TYPE DCH-FDD-Information          PRESENCE optional } |
    { ID id-DCH-DeleteList-RL-ReconfPrepFDD          CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepFDD          PRESENCE optional } |
    { ID id-DSCH-Modify-RL-ReconfPrepFDD          CRITICALITY reject  TYPE DSCH-Modify-RL-ReconfPrepFDD          PRESENCE optional } |
    { ID id-DSCHs-to-Add-FDD            CRITICALITY reject  TYPE DSCH-FDD-Information          PRESENCE optional } |
    { ID id-DSCH-Delete-RL-ReconfPrepFDD          CRITICALITY reject  TYPE DSCH-Delete-RL-ReconfPrepFDD          PRESENCE optional } |
    { ID id-RL-InformationList-RL-ReconfPrepFDD          CRITICALITY reject  TYPE RL-InformationList-RL-ReconfPrepFDD          PRESENCE optional } |
    { ID id-Transmission-Gap-Pattern-Sequence-Information          CRITICALITY reject  TYPE Transmission-Gap-Pattern-Sequence-Information          PRESENCE optional },
    ...
}

UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    ul-ScramblingCode          UL-ScramblingCode          OPTIONAL,
    ul-SIRTarget               UL-SIR                  OPTIONAL,
    minUL-ChannelisationCodeLength          MinUL-ChannelisationCodeLength          OPTIONAL,

```

```

maxNrOfUL-DPCHs           MaxNrOfUL-DPCHs           OPTIONAL
-- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 --,
ul-PunctureLimit         PunctureLimit           OPTIONAL,
tFCS                      TFCS           OPTIONAL,
ul-DPCCH-SlotFormat      UL-DPCCH-SlotFormat      OPTIONAL,
diversityMode            DiversityMode           OPTIONAL,
sSDT-CellIDLength       SSdT-CellID-Length      OPTIONAL,
s-FieldLength           S-FieldLength           OPTIONAL,
iE-Extensions           ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
...
}

UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
tFCS                      TFCS           OPTIONAL,
dl-DPCH-SlotFormat       DL-DPCH-SlotFormat      OPTIONAL,
nrOfDLchannelisationcodes NrOfDLchannelisationcodes OPTIONAL,
tFCI-SignallingMode      TFCI-SignallingMode      OPTIONAL,
tFCI-Presence            TFCI-Presence           OPTIONAL
-- This IE shall be present if DL DPCH Slot Format IE is from 12 to 16 --,
multiplexingPosition     MultiplexingPosition      OPTIONAL,
limitedPowerIncrease      LimitedPowerIncrease      OPTIONAL,
iE-Extensions           ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
...
}

DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

DCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD

DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
dCH-ID                    DCH-ID,
iE-Extensions            ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
...
}

DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

DSCH-Modify-RL-ReconfPrepFDD ::= SEQUENCE {
dsch-Information         DSCH-ModifyInfo-RL-ReconfPrepFDD      OPTIONAL,

```



```

pdSCH-RL-ID                RL-ID                OPTIONAL,
tFCS                       TFCS                 OPTIONAL,
iE-Extensions              ProtocolExtensionContainer { {DSCH-Modify-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
...
}

DSCH-Modify-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  { ID id-EnhancedDSCHPCIndicator CRITICALITY ignore EXTENSION EnhancedDSCHPCIndicator PRESENCE optional} |
  { ID id-EnhancedDSCHPC          CRITICALITY ignore EXTENSION EnhancedDSCHPC          PRESENCE conditional} ,
  -- The IE shall be present if the Enhanced DSCH PC Indicator IE is set to "Enhanced DSCH PC Active in the UE".
  ...
}

DSCH-ModifyInfo-RL-ReconfPrepFDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyInformationItem-RL-ReconfPrepFDD

DSCH-ModifyInformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
  dSCH-ID                DSCH-ID,
  trChSourceStatisticsDescriptor TrCH-SrcStatisticsDescr OPTIONAL,
  transportFormatSet      TransportFormatSet          OPTIONAL,
  allocationRetentionPriority AllocationRetentionPriority OPTIONAL,
  schedulingPriorityIndicator SchedulingPriorityIndicator OPTIONAL,
  bLER                    BLER                      OPTIONAL,
  transportBearerRequestIndicator TransportBearerRequestIndicator,
  iE-Extensions          ProtocolExtensionContainer { {DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
  ...
}

DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  { ID id-EnhancedDSCHPCIndicator CRITICALITY ignore EXTENSION EnhancedDSCHPCIndicator PRESENCE optional} |
  { ID id-EnhancedDSCHPC          CRITICALITY ignore EXTENSION EnhancedDSCHPC          PRESENCE conditional} ,
  -- The IE shall be present if the Enhanced DSCH PC Indicator IE is set to "Enhanced DSCH PC Active in the UE".
  ...
}

DSCH-Delete-RL-ReconfPrepFDD ::= SEQUENCE {
  dSCH-Information      DSCH-Info-Delete-RL-ReconfPrepFDD,
  iE-Extensions          ProtocolExtensionContainer { {DSCH-Delete-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
  ...
}

DSCH-Delete-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

DSCH-Info-Delete-RL-ReconfPrepFDD ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCH-DeleteInformationItem-RL-ReconfPrepFDD

DSCH-DeleteInformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dSCH-ID          DSCH-ID,
    iE-Extensions    ProtocolExtensionContainer { {DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfPrepFDD          ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-
ReconfPrepFDD-IEs} }

RL-Information-RL-ReconfPrepFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-ReconfPrepFDD          CRITICALITY reject TYPE RL-Information-RL-ReconfPrepFDD          PRESENCE mandatory
    }
}

RL-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    rL-ID          RL-ID,
    sSDT-Indication          SSDT-Indication          OPTIONAL,
    sSDT-CellIdentity        SSDT-CellID          OPTIONAL
    -- The IE shall be present if the sSDT-Indication is set to 'sSDT-active-in-the-UE' --,
    transmitDiversityIndicator          TransmitDiversityIndicator          OPTIONAL,
    -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and is not equal to "none"
    iE-Extensions          ProtocolExtensionContainer { {RL-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-SSDT-CellIDforEDSCHPC CRITICALITY ignore EXTENSION SSDT-CellID          PRESENCE conditional },
    -- This IE shall be present if Enhanced DSCH PC IE is present in either the DSCHs to Modify IE or the DSCHs to Add IE.
    ...
}

RadioLinkReconfigurationPrepareFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

### 9.3.4 Information Element Definitions

```
--S
```

```
-- Not affected parts are omitted.
```

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

CR-Form-v5

## CHANGE REQUEST

⌘ **25.423 CR 596** ⌘ rev **1** ⌘ Current version: **4.3.0** ⌘

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  Core Network

<b>Title:</b>	⌘ Introduction of ellipsis for IPDL parameters		
<b>Source:</b>	⌘ R-WG3		
<b>Work item code:</b>	⌘ TEI	<b>Date:</b>	⌘ Feb. 2002
<b>Category:</b>	⌘ <b>F</b>	<b>Release:</b>	⌘ REL-4
	Use <u>one</u> of the following categories:		Use <u>one</u> of the following releases:
	F (correction)	2 (GSM Phase 2)	
	A (corresponds to a correction in an earlier release)	R96 (Release 1996)	
	B (addition of feature),	R97 (Release 1997)	
	C (functional modification of feature)	R98 (Release 1998)	
	D (editorial modification)	R99 (Release 1999)	
	Detailed explanations of the above categories can be found in 3GPP TR 21.900.	REL-4 (Release 4)	REL-5 (Release 5)

<b>Reason for change:</b>	⌘ To avoid a backward compatibility problem, an ellipsis should be added into ASN.1 of IPDL parameters IE group.
<b>Summary of change:</b>	⌘ In section 9.3.4, an ellipsis is added into ASN.1 of IPDL parameters. Isolated impact analysis: This CR has isolated impact to the IPDL function.
<b>Consequences if not approved:</b>	⌘ If this CR is not approved, IPDL parameters IE group is not provided with backward compatibility.

<b>Clauses affected:</b>	⌘ 9.3.4	
<b>Other specs affected:</b>	⌘ <input type="checkbox"/> Other core specifications	⌘ <input type="checkbox"/>
	<input type="checkbox"/> Test specifications	<input type="checkbox"/>
	<input type="checkbox"/> O&M Specifications	<input type="checkbox"/>
<b>Other comments:</b>	⌘	

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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.

## 9.3.4 Information Element Definitions

/\*Unchanged parts are omitted\*/

-- I

```

IPDLParameters ::= CHOICE {
    iPDL-FDD-Parameters      IPDL-FDD-Parameters,
    iPDL-TDD-Parameters      IPDL-TDD-Parameters,
    ...
}

IPDL-FDD-Parameters ::= SEQUENCE {
    iPSpacingFDD              IPSpacingFDD,
    iPLength                  IPLength,
    iPOffset                  IPOffset,
    seed                      Seed,
    burstModeParameters      BurstModeParameters OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer { { IPDL-FDD-Parameters-ExtIEs } } OPTIONAL,
    ...
}

```

```

IPDL-FDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

IPDL-TDD-Parameters ::= SEQUENCE {
    iPSpacingTDD              IPSpacingTDD,
    iPStart                   IPStart,
    iPSlot                     IPSlot,
    iP-P-CCPCH                 IP-P-CCPCH,
    burstModeParameters      BurstModeParameters OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer { { IPDL-TDD-Parameters-ExtIEs } } OPTIONAL,
    ...
}

```

-- The *BurstModeParameters* IE shall be included if the Idle Periods are arranged in Burst Mode.

```

IPDL-TDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

/\*Unchanged parts are omitted\*/