

**TSG-RAN Meeting #8  
Düsseldorf, Germany, 21 - 23 June 2000**

**TSGRP#8(00)0250**

**Title: Agreed CRs to TS 25.433**

**Source: TSG-RAN WG3**

**Agenda item: 5.3.3**

Tdoc_Num	Specification	CR_Num	Revision_Nu	CR_Subject	CR_Category	WG_Status	Cur_Ver_Num	New_Ver_Nu
R3-001127	25.433	104		NBAP range bounds in ASN.1 description: FDD	F	agreed	3.1.0	3.2.0
R3-001130	25.433	084	1	Introduction of RTT measurement	B	agreed	3.1.0	3.2.0
R3-001132	25.433	083	1	Measurement filtering parameters	F	agreed	3.1.0	3.2.0
R3-001136	25.433	090	1	Add "NULL" for only one component to choose in	F	agreed	3.1.0	3.2.0
R3-001138	25.433	091	1	Change INTEGER to ENUMERATED for Paging	F	agreed	3.1.0	3.2.0
R3-001186	25.433	082	1	Introduction of state information in procedure	F	agreed	3.1.0	3.2.0
R3-001192	25.433	109		NBAP range bounds, TDD parts	B	agreed	3.1.0	3.2.0
R3-001197	25.433	100	1	Modification to TFS definition [NBAP]	F	agreed	3.1.0	3.2.0
R3-001204	25.433	097	1	DCH and DSCH information response in	F	agreed	3.1.0	3.2.0
R3-001230	25.433	087	2	Clarification of system info broadcast procedure	F	agreed	3.1.0	3.2.0
R3-001231	25.433	088	2	Addition of FP PC transmission timing IE in	F	agreed	3.1.0	3.2.0
R3-001233	25.433	092	2	Correction on the definition of RSSI	F	agreed	3.1.0	3.2.0

R3-001236	25.433	102	1	Introduction of RLS in 25.433	C	agreed	3.1.0	3.2.0
R3-001255	25.433	089	3	Sync Parameter configuration via NBAP	B	agreed	3.1.0	3.2.0
R3-001258	25.433	094	2	Correction to the limited power increase parameter	F	agreed	3.1.0	3.2.0
R3-001262	25.433	093	3	Clarification on the Combining Control field:	F	agreed	3.1.0	3.2.0
R3-001268	25.433	122		Clarification that basid Per is used	F	agreed	3.1.0	3.2.0
R3-001274	25.433	130		Handling of presence field	F	agreed	3.1.0	3.2.0
R3-001277	25.433	131		Basic protocol robustness	C	agreed	3.1.0	3.2.0
R3-001278	25.433	132		Granularity of Max DL power	F	agreed	3.1.0	3.2.0

3GPP TSG RAN WG3 Meeting #12  
Seoul, Korea, 10<sup>th</sup> – 13<sup>th</sup> April 2000

Document **R3-001186**

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

## CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

**25.433 CR 082r1**

Current Version: **3.1.0**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **TSG RAN #8**

list expected approval meeting # here

↑

for approval

for information

strategic

non-strategic  (for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

### Proposed change affects:

(at least one should be marked with an X)

(U)SIM

ME

UTRAN / Radio

Core Network

### Source:

R-WG3

### Date:

2000-04-12

### Subject:

Introduction of state in procedure descriptions

### Work item:

### Category:

(only one category shall be marked with an X)

F Correction

A Corresponds to a correction in an earlier release

B Addition of feature

C Functional modification of feature

D Editorial modification

### Release:

Phase 2

Release 96

Release 97

Release 98

Release 99

Release 00

### Reason for change:

The error handling will be easier and more comprehensible if the states of cells and common channels are introduced in the NBAP procedure texts, where it is missing. It makes the NBAP spec consistent what regards the state handling of cells and common channels.

### Clauses affected:

8.2.1.2, 8.2.1.3, 8.2.2.2, 8.2.2.3, 8.2.3.2, 8.2.12.2, 8.2.12.3, 8.2.14.2

### Other specs affected:

Other 3G core specifications

→ List of CRs:

Other GSM core specifications

→ List of CRs:

MS test specifications

→ List of CRs:

BSS test specifications

→ List of CRs:

O&M specifications

→ List of CRs:

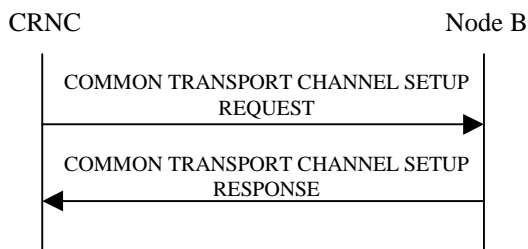
### Other comments:

## 8.2.1 Common Transport Channel Setup

### 8.2.1.1 General

This procedure is used for establishing the necessary resources in Node B, regarding Secondary CCPCH, PICH, PRACH, AICH [FDD], FACH, PCH, and RACH.

### 8.2.1.2 Successful Operation



**Figure 1: Common Transport Channel Setup procedure, Successful Operation**

The procedure is initiated with a COMMON TRANSPORT CHANNEL SETUP REQUEST message sent from the CRNC to the Node B.

One message can configure only one of the following combinations:

- [FDD-one Secondary CCPCH, and FACHes, PCH and PICH related to that Secondary CCPCH], or
- [TDD- Secondary CCPCHes and FACHes, PCH with the corresponding PICH related to that group of Secondary CCPCHes], or
- one PRACH, and one RACH and one AICH(FDD) related to that PRACH at the time.

#### **Secondary CCPCH:**

[FDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains a Secondary CCPCH, the Node B shall configure and activate it according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message. The handling of the optional *STTD* IE is FFS.]

[TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains one or more Secondary CCPCHs, the Node B shall configure and activate them according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[TDD- FACHs and PCH may be mapped onto a CCTrCH which may consist of several Secondary CCPCHs]

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains one or several FACHs, the Node B shall configure and activate them according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains a PCH and a PICH, the Node B shall configure and activate them according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message. [FDD- The handling of the optional *STTD* IE for PICH is FFS.]

#### **PRACH:**

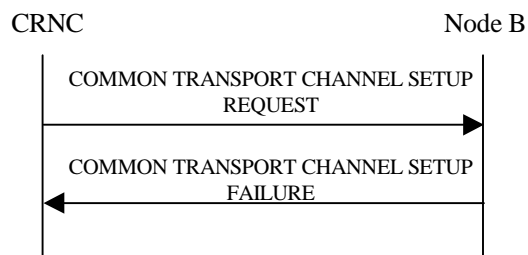
When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains a PRACH, the Node B shall configure and activate it according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[FDD- The handling of the optional *STTD* IE for AICH is FFS.]

After a successful procedure, the defined common transport channels and the common physical channels have adopted the operational state Enabled in Node B and the common transport channels exist on the Uu interface. The Node B shall store the value of *Configuration Generation ID* IE and it shall respond with the COMMON TRANSPORT CHANNEL SETUP RESPONSE message with the transport layer information for the configured common transport channels.

After a successful procedure, the defined common transport channels and the common physical channels shall adopt the state Enabled [6] in Node B and the common transport channels exist on the Uu interface. The Node B shall store the value of *Configuration Generation ID* IE and it shall respond with the COMMON TRANSPORT CHANNEL SETUP RESPONSE message with the transport layer information for the configured common transport channels.

### 8.2.1.3 Unsuccessful Operation



**Figure 2: Common Transport Channel Setup procedure, Unsuccessful Operation**

If the state already is Enabled or Disabled [6] for at least one channel channel in the COMMON TRANSPORT CHANNEL SETUP REQUEST message is received, the Node B shall reject the configuration of all channels with the Cause IE set to "Message not compatible with receiver state".

If the Node B is not able to support all part of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message. The channels in the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall remain in the same state as prior to the procedure. The Cause Value IE shall be set to an appropriate value. The value of *Configuration Generation ID* IE from the COMMON TRANSPORT CHANNEL SETUP REQUEST message shall not be stored.

If the configuration was unsuccessful, the Node B shall respond with a COMMON TRANSPORT CHANNEL SETUP FAILURE message.

Typical cause values are as follows:

#### Radio Network Layer Cause

- Cell not available
- Unknown C-ID
- Power level not supported
- Node B Resources unavailable

#### Transport Layer Cause

- Transport Resources Unavailable

#### Protocol Cause

- Semantic error
- Message not compatible with receiver state

#### Miscellaneous Cause

- O&M Intervention

- Unspecified
- Control processing overload
- HW failure

#### 8.2.1.4 Abnormal Conditions

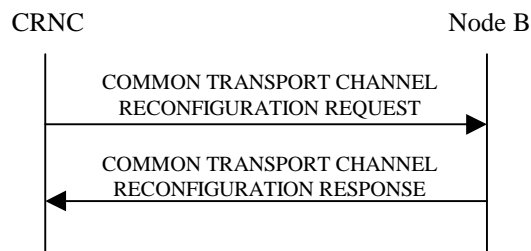
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## 8.2.2 Common Transport Channel Reconfiguration

### 8.2.2.1 General

This procedure is used for reconfiguring common transport channels and/or common physical channels, while they still might be in operation.

### 8.2.2.2 Successful Operation



**Figure 3: Common Transport Channel Reconfiguration, Successful Operation**

The procedure is initiated with a COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message sent from the CRNC to the Node B.

**[TDD S-CCPCH:** If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *S-CCPCH Power* IE, the Node B shall reconfigure the power that the indicated S-CCPCH shall use.]

**FACH:** When one or several FACHs are present Node B reconfigures the indicated FACHs.

[FDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *Max FACH Power* IE, the Node B shall reconfigure the maximum power that the FACH may use.]

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWS* IE, the Node B shall reconfigure the time of arrival window startpoint that the FACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWE* IE, the Node B shall reconfigure the time of arrival window endpoint that the FACH shall use.

**PCH:** When the PCH is present Node B reconfigures the indicated PCH.

[FDD - If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PCH Power* IE, the Node B shall reconfigure the power that the PCH shall use.]

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWS* IE, the Node B shall reconfigure the time of arrival window startpoint that the PCH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *ToAWE* IE, the Node B shall reconfigure the time of arrival window endpoint that the PCH shall use.

**PICH:** When a PICH is present Node B reconfigures the indicated PICH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *PICH Power* IE, the Node B shall reconfigure the power that the PICH shall use.

**[FDD- PRACH]:** When a PRACH is present Node B reconfigures the indicated PRACH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the Allowed Preamble Signatures Information, the Node B shall reconfigure the preamble signatures that the PRACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the Allowed Slot Format Information, the Node B shall reconfigure the slot formats that the PRACH shall use.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the Allowed Sub Channel Information, the Node B shall reconfigure the sub channel numbers that the PRACH shall use.

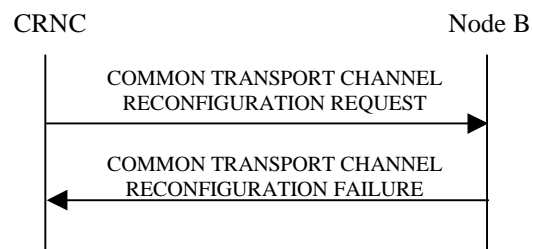
**[FDD- AICH]:** When a AICH is present Node B reconfigures the indicated AICH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes the *AICH Power* IE, the Node B shall reconfigure the power that the AICH shall use.

~~After a successful procedure, the channels have adopted the new configuration in Node B. Node B shall store the value of *Configuration Generation ID* IE, and the Node B shall respond with the COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE message.~~

After a successful procedure, the channels have adopted the new configuration in Node B. The channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall remain in the same state as prior to the procedure. Node B shall store the value of *Configuration Generation ID* IE, and the Node B shall respond with the COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE message.

### 8.2.2.3 Unsuccessful Operation



**Figure 4: Common Transport Channel Reconfiguration procedure, Unsuccessful Operation**

If the Node B is not able to support all parts of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message. The channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall remain in the same state as prior to the procedure. The *Cause Value* IE shall be set to an appropriate value. The value of *Configuration Generation ID* IE from the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall not be stored.

If the configuration was unsuccessful, the Node B shall respond with the COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE message.

Typical cause values are as follows:

#### Radio Network Layer Cause

- Cell not available
- Unknown C-ID
- Power level not supported
- Node B Resources unavailable

#### Transport Layer Cause

- Transport Resources Unavailable



**Protocol Cause**

- Semantic error

**Miscellaneous Cause**

- O&M Intervention
- Unspecified
- Control processing overload
- HW failure

**8.2.2.4 Abnormal Conditions**

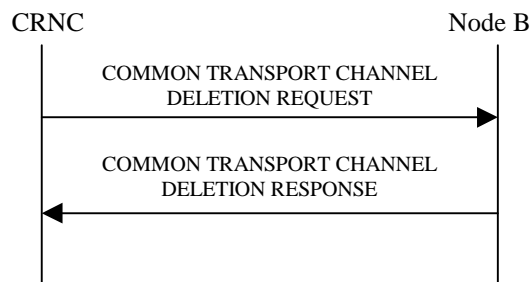
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## 8.2.3 Common Transport Channel Deletion

### 8.2.3.1 General

This procedure is used for deleting common physical channels and common transport channels setup by the Common Transport Channel Setup procedure in a cell.

### 8.2.3.2 Successful Operation



**Figure 5: Common Transport Channel Deletion procedure, Successful Operation**

The procedure is initiated with a COMMON TRANSPORT CHANNEL DELETION REQUEST message sent from the CRNC to the Node B.

**Secondary CCPCH:** When the COMMON TRANSPORT CHANNEL DELETION REQUEST message contains a Secondary CCPCH, Node B shall delete the indicated channel and the FACHes and PCH supported by that Secondary CCPCH. If there is a PCH that is deleted, the PICH associated with that PCH shall also be deleted.

**PRACH:** When the COMMON TRANSPORT CHANNEL DELETION REQUEST message contains a PRACH, Node B shall delete the indicated channel and the RACH supported by the PRACH. [FDD- The AICH associated with the PCH shall also be deleted.]

[TDD- If the requested common physical channel is a part of a CCTrCH, all common transport channels and all common physical channels associated with this CCTrCH shall be deleted.]

*After a successful procedure, the channels are deleted in Node B. Node B shall store the new value of the Configuration Generation ID IE, and respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.*

*After a successful procedure, the channels are deleted in Node B. The channels in the COMMON TRANSPORT CHANNEL DELETION REQUEST message shall be set to state Not Existing [6]. Node B shall store the new value of the Configuration Generation ID IE, and respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.*

### 8.2.3.3 Unsuccessful Operation

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### 8.2.3.4 Abnormal Conditions

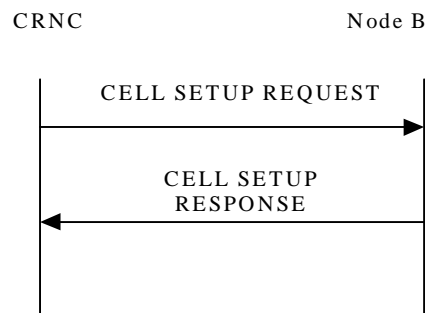
If the C-ID in the COMMON TRANSPORT CHANNEL DELETION REQUEST message is not existing in the Node B or the Common Physical Channel ID does not exist in the Cell, the Node B shall respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.

## 8.2.12 Cell Setup

### 8.2.12.1 General

This procedure is used to set up a cell in Node B. The CRNC takes the cell, identified via the *C-ID* IE, into service and uses the resources in Node B identified via the *Local Cell ID* IE.

### 8.2.12.2 Successful Operation



**Figure 16: Cell Setup procedure: Successful Operation**

The procedure is initiated with a CELL SETUP REQUEST message sent from CRNC to Node B. Upon Reception, the Node B shall reserve the necessary resources and configure the new cell according to the parameters given in the message.

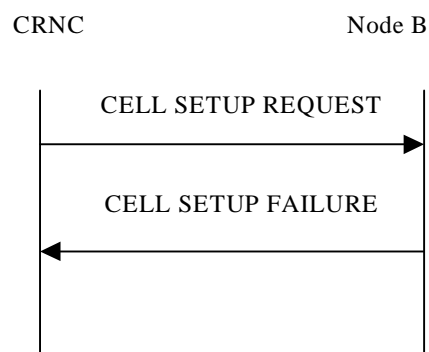
[FDD - If the CELL SETUP REQUEST message includes one or more *Secondary CPICH Information* IE group the Node B shall configure and activate the Secondary CPICH(s) in the cell according to received configuration data.]

The *Maximum Transmission Power* IE value shall be stored in the Node B and at any instance of time the total maximum output power in the cell shall not be above this value.

When the cell is successfully configured the Node B shall store the *Configuration Generation ID* IE value and send a CELL SETUP RESPONSE message as a response.

[FDD- When the cell is successfully configured CPICH(s), Primary SCH, Secondary SCH, Primary CCPCH and BCH exist.][TDD- When the cell is successfully configured SCH, Primary CCPCH and BCH exist and the switching-points for the TDD frame structure are defined.] [The cell and the channels shall be set to state Enabled \[6\].](#)

### 8.2.12.3 Unsuccessful Operation



**Figure 17: Cell Setup procedure: Unsuccessful Operation**

If the state of the cell already is Enabled or Disabled [6] when the CELL SETUP REQUEST message is received in Node B, it shall reject the configuration of the cell and all channels in the CELL SETUP REQUEST message with the Cause IE set to "Message not compatible with receiver state".

If the Node B cannot set up the cell according to the information given in CELL SETUP REQUEST message the CELL SETUP FAILURE message shall be sent to CRNC.

In this case the cell is Non Existing in Node B. The Configuration Generation ID shall not be changed in Node B.

The Cause IE shall be set to an appropriate value.

#### 8.2.12.4 Abnormal Conditions

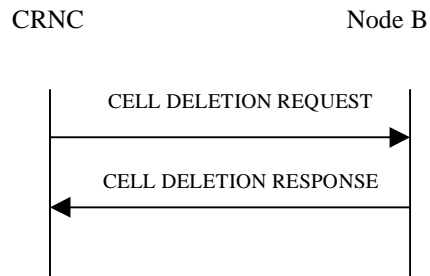
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## 8.2.14 Cell Deletion

### 8.2.14.1 General

This procedure is used to delete a cell in Node B.

### 8.2.14.2 Successful Operation



**Figure 8: Cell Deletion procedure: Successful Operation**

The procedure is initiated with a CELL DELETION REQUEST message sent from CRNC to Node B. Upon Reception, the Node B shall remove the cell and any channel within the cell created by the Cell Setup procedure or Common Transport Channel Setup procedure. The states for the cell and the deleted channels shall be set to Not Existing [6].

When the cell is deleted, the Node B shall send a CELL DELETION RESPONSE message as a response.

### 8.2.14.3 Unsuccessful Operation

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### 8.2.14.4 Abnormal Conditions

If the CELL DELETION REQUEST message includes a *C-ID* IE value that is not existing in Node B the Node B shall respond with the CELL DELETION RESPONSE message.

<h2 style="margin: 0;">CHANGE REQUEST</h2>				Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.	
<b>25.433</b>		<b>CR 083 R1</b>		Current Version: <b>3.1.0</b>	
GSM (AA.BB) or 3G (AA.BBB) specification number ↑		↑ CR number as allocated by MCC support team			
For submission to: <b>TSG RAN #8</b> <small>list expected approval meeting # here ↑</small>		for approval <input checked="" type="checkbox"/> for information <input type="checkbox"/>		strategic <input type="checkbox"/> non-strategic <input type="checkbox"/> <small>(for SMG use only)</small>	

Form: CR cover sheet, version 2 for 3GPP and SMG    The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:**    (U)SIM     ME     UTRAN / Radio     Core Network   
(at least one should be marked with an X)

**Source:**    R-WG3    **Date:**    April 2000

**Subject:**    Measurement filtering parameters

**Work item:**

<b>Category:</b>	F Correction <input checked="" type="checkbox"/> A Corresponds to a correction in an earlier release <input type="checkbox"/> B Addition of feature <input type="checkbox"/> C Functional modification of feature <input type="checkbox"/> D Editorial modification <input type="checkbox"/>		<b>Release:</b>	Phase 2 <input type="checkbox"/> Release 96 <input type="checkbox"/> Release 97 <input type="checkbox"/> Release 98 <input type="checkbox"/> Release 99 <input checked="" type="checkbox"/> Release 00 <input type="checkbox"/>
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(only one category shall be marked with an X)

**Reason for change:**    This CR updates the filter coefficients for the layer 3 filtering model in line with Tdoc R3-001021.

**Clauses affected:**    8.2.8, 8.3.8, 9.2.1.66, 9.3.4.

<b>Other specs affected:</b>	Other 3G core specifications <input checked="" type="checkbox"/> Other GSM core specifications <input type="checkbox"/> MS test specifications <input type="checkbox"/> BSS test specifications <input type="checkbox"/> O&M specifications <input type="checkbox"/>	→ List of CRs: → List of CRs: → List of CRs: → List of CRs: → List of CRs:	
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**Other comments:**

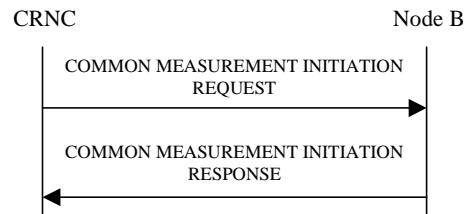
<----- double-click here for help and instructions on how to create a CR.

## 8.2.8 Common Measurement Initiation

### 8.2.8.1 General

This procedure is used by a CRNC to request the initiation of measurements on common resources in a Node B.

### 8.2.8.2 Successful Operation



**Figure 11: Common Measurement Initiation procedure: Successful Operation**

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Node B control port.

Upon reception, the Node B 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.]

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

If the *Report Characteristics IE* is set to 'On-Demand', the Node B shall report the result of the requested measurement immediately.

If the *Report Characteristics IE* is set to 'Periodic', the Node B shall periodically initiate a Measurement Reporting procedure for this measurement, with the requested report frequency.

If the *Report Characteristics IE* is set to 'Event A', the Node B 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 Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics IE* is set to 'Event B', the Node B 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 Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics IE* is set to 'Event C', the Node B shall initiate a Measurement Reporting procedure when the measured entity rises more than the requested threshold within the requested time.

If the *Report Characteristics IE* is set to 'Event D', the Node B shall initiate a Measurement Reporting procedure when the measured entity falls more than the requested threshold within the requested time.

If the *Report Characteristics IE* is set to 'Event E', the Node B shall initiate a Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). The Node B shall also initiate a Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (Report B). If the *Report Periodicity IE* is provided, the Node B shall initiate Measurement Reporting procedures periodically, with the requested frequency, between Report A and Report B. If 'Measurement Threshold 2' is not present, the Node B shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the Node B 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 Node B shall initiate a Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time'

(Report A). The Node B shall also initiate a Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (Report B). If the *Report Periodicity* IE is provided, the Node B shall initiate Measurement Reporting procedures periodically, with the requested frequency, between Report A and Report B. If 'Measurement Threshold 2' is not present, the Node B shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

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 Node B shall initiate a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

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

$a = 1/2^{(k/2)}$  ~~one divided by~~, 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.

If the Node B was able to initiate the measurement requested by the CRNC it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent over the Node B control port. 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", the COMMON MEASUREMENT INITIATION RESPONSE message shall contain the measurement result.



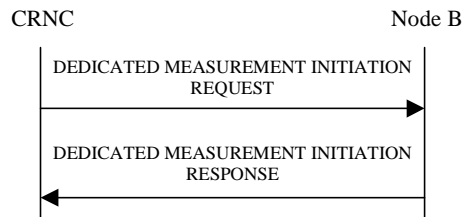
## 8.3.8 Dedicated Measurement Initiation

### 8.3.8.1 General

This procedure is used by a CRNC to request the initiation of measurements on dedicated resources in a Node B.

The Dedicated Measurement Initiation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

### 8.3.8.2 Successful Operation



**Figure 38: Dedicated Measurement Initiation procedure: Successful Operation**

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the communication control port assigned to the Node B communication context.

Upon reception, the Node B 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.

If the Node B Communication Context Id IE equals the reserved value 'All NBCC', this measurement request shall apply for all current and future Node B Communication Contexts that can be contacted via the current communication control port. Otherwise, this measurement request shall apply for the requested Node B Communication Context Id only.

If the *Dedicated Measurement Object* IE is set to "RL", the measurement reports shall give the measurement result for each of the indicated Radio Links.

[FDD - If the *Dedicated Measurement Object* IE is set to "RLS", the measurement reports shall give the measurement result for each of the indicated Radio Link Sets.]

If the *Dedicated Measurement Object* IE is set to "ALL RL", the measurement reports shall give the measurement result for each of the current and future Radio Links within the Node B Communication Context.

[FDD - If the *Dedicated Measurement Object* IE is set to "ALL RLS", the measurement reports shall give the measurement result for each of the existing and future Radio Link Sets within the Node B Communication Context.]

[TDD - If DPCH Id is provided within the RL Information the measurement request shall apply for the requested physical channel individually.]

The *Report Characteristics* IE is set to how the reporting of the measurement shall be performed.

If the *Report Characteristics* IE is set to 'On-Demand', the Node B shall return the result of the measurement immediately.

If the *Report Characteristics* IE is set to 'Periodic', the Node B shall periodically initiate a Measurement Report procedure for this measurement, with the requested report frequency.

If the *Report Characteristics* IE is set to 'Event A', the Node B 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 Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event B', the Node B 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 Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event C', the Node B shall initiate a Measurement Reporting procedure when the measured entity rises more than the requested threshold within the requested time.

If the *Report Characteristics* IE is set to 'Event D', the Node B shall initiate a Measurement Reporting procedure when the measured entity falls more than the requested threshold within the requested time.

If the *Report Characteristics* IE is set to 'Event E', the Node B shall initiate a Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). The Node B shall also initiate a Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (Report B). If the *Report Periodicity* IE is provided, the Node B shall initiate Measurement Reporting procedures periodically, with the requested frequency, between Report A and Report B. If 'Measurement Threshold 2' is not present, the Node B shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the Node B 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 Node B shall initiate a Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). The Node B shall also initiate a Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (Report B). If the *Report Periodicity* IE is provided, the Node B shall initiate Measurement Reporting procedures periodically, with the requested frequency, between Report A and Report B. If 'Measurement Threshold 2' is not present, the Node B shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

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 Node B shall initiate a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

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

$a = 1/2^{(k/2)}$  one divided by  $2^k$ , 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.

If the Node B was able to initiate the measurement requested by the CRNC it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message using the communication control port assigned to the Node B communication context. The message shall include the same Measurement Id that was used in the measurement request.

Only in the case when *Report Characteristics* IE is set to "On-Demand", the DEDICATED MEASUREMENT INITIATION RESPONSE message shall contain the measurement result. In this case also the *Dedicated Measurement Object* IE shall be included if it was included in the request message.

### 9.2.1.66 Measurement Filter Coefficient

The Measurement Filter Coefficient determines the amount of filtering to be applied for measurements.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Measurement Filter Coefficient			<u>INTEGER</u> <u>(1..256)ENUMERATED(0</u> <u>1, 2, 3, 4, 5,</u> <u>6, 7, 8, 9, 11,</u> <u>13, 15, 17,</u> <u>19)</u>	

```

-- =====
-- M
-- =====

MaximumDL-PowerCapability ::= INTEGER(0..50)
-- Unit dBm, Range 0dBm .. 50dBm, Step +1dB

MaximumTransmissionPower ::= INTEGER(0..50)
-- Unit dB, Range 0dB .. 50dB, Step +1dB

MaxNrOfUL-DPDCHs ::= INTEGER (1..6)

MaxPRACH-MidambleShifts ::= ENUMERATED {
    shift4,
    shift8,
    ...
}

MeasurementFilterCoefficient ::= INTEGER(1..256)ENUMERATED(k0, k1, k2, k3, k4, k5, k6, k7, k8, k9,
k11, k13, k15, k17, k19)
-- Measurement Filter Coefficient to be used for measurement

MeasurementID ::= INTEGER (0..1048575)

MidambleShift ::= INTEGER (0..15)

MinSpreadingFactor ::= ENUMERATED {
    v4,
    v16,
    v32,
    v64,
    v128,
    v256,
    v512,
    ...
}

MinUL-ChannelisationCodeLength ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256,
    ...
}

MultiplexingPosition ::= ENUMERATED {
    fixed,
    flexible,
    ...
}

```

## CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

**25.433 CR 084 R1**      Current Version: **3.1.0**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **R3#8**      for approval       strategic  (for SMG use only)  
list expected approval meeting # here      for information       non-strategic

Form: CR cover sheet, version 2 for 3GPP and SMG      The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:**      (U)SIM       ME       UTRAN / Radio       Core Network   
(at least one should be marked with an X)

**Source:**      R-WG3      **Date:**      April 2000

**Subject:**      Introduction of Round Trip Time measurement

**Work item:**      \_\_\_\_\_

<b>Category:</b>	F Correction <input type="checkbox"/> A Corresponds to a correction in an earlier release <input type="checkbox"/> B Addition of feature <input checked="" type="checkbox"/> C Functional modification of feature <input type="checkbox"/> D Editorial modification <input type="checkbox"/>	<b>Release:</b>	Phase 2 <input type="checkbox"/> Release 96 <input type="checkbox"/> Release 97 <input type="checkbox"/> Release 98 <input type="checkbox"/> Release 99 <input checked="" type="checkbox"/> Release 00 <input type="checkbox"/>
------------------	--	-----------------	--

(only one category shall be marked with an X)

**Reason for change:**      So far, R3 has only very limited support for Positioning. This CR proposes to introduce the Round Trip Time measurement as a dedicated measurement on NBAP.  
 Definition of measurement range and granularity are taken from 25.215, v.3.2.0.

**Clauses affected:**      9.2.1.22; 9.2.1.32; 9.2.1.67; 9.2.1.68; 9.3.4

<b>Other specs affected:</b>	Other 3G core specifications <input type="checkbox"/> Other GSM core specifications <input type="checkbox"/> MS test specifications <input type="checkbox"/> BSS test specifications <input type="checkbox"/> O&M specifications <input type="checkbox"/>	→ List of CRs: → List of CRs: → List of CRs: → List of CRs: → List of CRs:	
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**Other comments:**      \_\_\_\_\_



help.doc

<----- double-click here for help and instructions on how to create a CR.

### 9.2.1.22 Dedicated Measurement Type

The Dedicated Measurement Type identifies the type of measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dedicated Measurement Type			ENUMERATED (SIR, SIR Error, Transmitted Code Power, RSCP, Round Trip Time,...)	RSCP is used by TDD only, Round Trip Time is used by FDD only.

Note. For definitions of the measurement types refer to 25.215 and 25.225.

### 9.2.1.23 Dedicated Measurement Value

The Dedicated Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
<b>Dedicated measurement Value</b>				
>SIR value	C <i>MeasValue</i>		INTEGER(0. .63)	According to mapping in 25.215/25.225
>SIR error Value	C <i>MeasValue</i>		INTEGER(0. .125)	SIR_Error=SIR-SIR_target 0: < -31.0 dB 1: -31.0dB ≤ SIR_Error < 30.5dB 2: -30.5dB ≤ SIR_Error < 30.0dB ... 62: -0.5dB ≤ SIR_Error < 0dB 63: 0dB ≤ SIR_Error < 0.5dB ... 124: 30.5dB ≤ SIR_Error < 31dB 125: ≥ 31dB
>Transmitted Code Power Value	C <i>MeasValue</i>		INTEGER(0. .127)	According to mapping in 25.215/25.225
>RSCP	C <i>MeasValue</i>		INTEGER(0. .81)	According to mapping in 25.225
<a href="#">&gt; Round Trip Time</a>	<a href="#">C <i>MeasValue</i></a>		<a href="#">INTEGER(0. .8191)</a>	<a href="#">According to mapping in 25.215</a>

Condition	Explanation
<i>MeasValue</i>	Only one measurement value can be present at the same time.

## 9.2.1.67 Measurement Threshold

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

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
RSSI	<i>C – Threshold</i>		INTEGER(0..63)	According to mapping in 25.215/25.225
Transmitted Carrier Power	<i>C – Threshold</i>		INTEGER(0..100)	According to mapping in 25.215/25.225
Acknowledged RA tries	<i>C – Threshold</i>		INTEGER(0..240,...)	The number of L1 acknowledged random access tries per every 20 ms period.
Timeslot ISCP	<i>C – Threshold</i>		INTEGER(0..81)	According to mapping in 25.225 (TDD only)
SIR	<i>C – Threshold</i>		INTEGER(0..63)	According to mapping in 25.215/25.225
SIR Error	<i>C – Threshold</i>		INTEGER(0..125)	SIR_Error=SIR-SIR_target 0: < -31.0 dB 1: -31.0dB ≤ SIR_Error < 30.5dB 2: -30.5dB ≤ SIR_Error < 30.0dB ... 62: -0.5dB ≤ SIR_Error < 0dB 63: 0dB ≤ SIR_Error < 0.5dB ... 124: 30.5dB ≤ SIR_Error < 31dB 125: ≥ 31dB
Transmitted Code Power	<i>C – Threshold</i>		INTEGER(0..127)	According to mapping in 25.215/25.225
RSCP	<i>C – Threshold</i>		INTEGER(0..81)	According to mapping in 25.225 (TDD only)
<a href="#">Round Trip Time</a>	<a href="#">C – Threshold</a>		<a href="#">INTEGER(0..8191)</a>	<a href="#">According to mapping in 25.215 (FDD only)</a>

Condition	Explanation
<i>Threshold</i>	Only one measurement threshold can be present at the same time.



### 9.2.1.68 Measurement Increase/Decrease Threshold

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

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
RSSI	C – Threshold		INTEGER(0..62)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 62: 31dB
Transmitted Carrier Power	C – Threshold		INTEGER(0..100)	According to mapping in 25.215/25.225
Acknowledged RA tries	C – Threshold		INTEGER(0..240,...)	The number of L1 acknowledged random access tries per every 20 ms period.
Timeslot ISCP	C – Threshold		INTEGER(0..80)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 80: 40dB
SIR	C – Threshold		INTEGER(0..62)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 62: 31dB
SIR Error	C – Threshold		INTEGER(0..124)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 124: 62 dB
Transmitted Code Power	C – Threshold		INTEGER(0..112,...)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 112: 56 dB
RSCP	C – Threshold		INTEGER(0..80)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 80: 40dB
Round Trip Time	C – Threshold		INTEGER(0..8190)	0: 0 chips 1: 0.25 chips 2: 0.5 chips ... 8190: 2047.5 chips

Condition	Explanation
Threshold	Only one measurement threshold can be present at the same time.

```

-- =====
-- D
-- =====

DCH-CombinationInd ::= INTEGER (0..255)

DCH-ID ::= INTEGER (0..255)

DedicatedChannelsCapacityConsumptionLaw ::= SEQUENCE ( SIZE(1..maxNrOfSF) ) OF
  SEQUENCE {
    dl-Cost      INTEGER (0..65535),
    ul-Cost      INTEGER (0..65536)
  }

DedicatedMeasurementObjectType ::= ENUMERATED {
  rl,
  rls,
  all-rl,
  all-rls,
  ...
}

DedicatedMeasurementType ::= ENUMERATED {
  sir,
  sir-error,
  transmitted-code-power,
  rscp,
  round-trip-time,
  ...
}

DedicatedMeasurementValue ::= CHOICE {
  sIR-Value          SIR-Value,
  sIR-ErrorValue     SIR-Error-Value,
  transmittedCodePowerValue Transmitted-Code-Power-Value,
  rSCP               RSCP-Value,
  roundTripTime     Round-Trip-Time-Value,
  ...
}

D-FieldLength ::= ENUMERATED {
  v1,
  v2,
  ...
}

DiversityControlField ::= ENUMERATED {
  may,
  must,
  must-not,
  ...
}

DiversityMode ::= ENUMERATED {
  none,
  sTTD,
  closed-loop-model,
  closed-loop-mode2,
  ...
}

DL-DPCH-SlotFormat ::= INTEGER (0..16)

DL-FrameType ::= ENUMERATED {
  typeA,
  typeB,
  ...
}

DL-or-Global-CapacityCredit ::= INTEGER (0..65535)

DL-Power ::= INTEGER (-350..150)
-- DL-Power = power * 10
-- If Power <=-35 DL-Power shall be set to -350
-- if Power >=15 DL-Power shall be set to 150
-- Unit dB, Range -35dB .. +15dB, Step +0.1dB

DL-ScramblingCode ::= INTEGER (0..15)

```

```
-- 0= Primary scrambling code of the cell, 1..15= Secondary scrambling code --  
DPCH-ID ::= INTEGER (0..239)  
DSCH-ID ::= INTEGER (0..255)  
  
-- to do  
-- the parameter need to be defined. It may correspond to the DL TFS defined for DCH  
DSCH-TFS ::= INTEGER
```

```

-- =====
-- R
-- =====

RACH-SlotFormat ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    ...
}

RACH-SubChannelNumbers ::= BIT STRING (SIZE (12))
-- Bit 0=Sub Channel Number 0, Bit 1=Sub Channel Number 1, ..., Bit 11=Sub Channel Number 11

RepetitionLength ::= INTEGER (1..63)

RepetitionPeriod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    v16,
    v32,
    v64,
    ...
}

RepetitionNumber ::= INTEGER (0..255)

RefTFCNumber ::= INTEGER (0..15)

ReportCharacteristics ::= CHOICE {
    onDemand          NULL,
    periodic          ReportCharacteristicsType-ReportPeriodicity,
    event-a           ReportCharacteristicsType-EventA,
    event-b           ReportCharacteristicsType-EventB,
    event-c           ReportCharacteristicsType-EventC,
    event-d           ReportCharacteristicsType-EventD,
    event-e           ReportCharacteristicsType-EventE,
    event-f           ReportCharacteristicsType-EventF,
    ...
}

ReportCharacteristicsType-EventA ::= SEQUENCE {
    measurementThreshold          ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime     ReportCharacteristicsType-ScaledMeasurementHysteresisTime
    OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { ReportCharacteristicsType-EventA-
ExtIEs} } OPTIONAL,
    ...
}

ReportCharacteristicsType-EventA-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventB ::= SEQUENCE {
    measurementThreshold          ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime     ReportCharacteristicsType-ScaledMeasurementHysteresisTime
    OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { ReportCharacteristicsType-EventB-
ExtIEs} } OPTIONAL,
    ...
}

ReportCharacteristicsType-EventB-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventC ::= SEQUENCE {
    measurementIncreaseThreshold  ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime         ReportCharacteristicsType-ScaledMeasurementChangeTime,
    iE-Extensions                 ProtocolExtensionContainer { { ReportCharacteristicsType-EventC-
ExtIEs} } OPTIONAL,
    ...
}

```

```

ReportCharacteristicsType-EventC-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

ReportCharacteristicsType-EventD ::= SEQUENCE {
  measurementDecreaseThreshold ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
  measurementChangeTime       ReportCharacteristicsType-ScaledMeasurementChangeTime,
  iE-Extensions                ProtocolExtensionContainer { { ReportCharacteristicsType-EventD-
ExtIEs} } OPTIONAL,
  ...
}

ReportCharacteristicsType-EventD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

ReportCharacteristicsType-EventE ::= SEQUENCE {
  measurementThreshold1 ReportCharacteristicsType-MeasurementThreshold,
  measurementThreshold2 ReportCharacteristicsType-MeasurementThreshold
  OPTIONAL,
  measurementHysteresisTime ReportCharacteristicsType-ScaledMeasurementHysteresisTime
  OPTIONAL,
  reportPeriodicity       ReportCharacteristicsType-ReportPeriodicity
  OPTIONAL,
  iE-Extensions          ProtocolExtensionContainer { { ReportCharacteristicsType-EventE-
ExtIEs} } OPTIONAL,
  ...
}

ReportCharacteristicsType-EventE-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

ReportCharacteristicsType-EventF ::= SEQUENCE {
  measurementThreshold1 ReportCharacteristicsType-MeasurementThreshold,
  measurementThreshold2 ReportCharacteristicsType-MeasurementThreshold
  OPTIONAL,
  measurementHysteresisTime ReportCharacteristicsType-ScaledMeasurementHysteresisTime
  OPTIONAL,
  reportPeriodicity       ReportCharacteristicsType-ReportPeriodicity
  OPTIONAL,
  iE-Extensions          ProtocolExtensionContainer { { ReportCharacteristicsType-EventF-
ExtIEs} } OPTIONAL,
  ...
}

ReportCharacteristicsType-EventF-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold ::= CHOICE {
  rssi                RSSI-Value-IncrDecrThres,
  transmitted-carrier-power Transmitted-Carrier-Power-Value,
  acknowledged-ra-tries Acknowledged-RA-Tries-Value,
  timeslot-iscp       TimeSlot-ISCP-Value-IncrDecrThres,
  sir                 SIR-Value-IncrDecrThres,
  sir-error           SIR-Error-Value-IncrDecrThres,
  transmitted-code-power Transmitted-Code-Power-Value-IncrDecrThres,
  rscp                RSCP-Value-IncrDecrThres,
  round-trip-time    Round-Trip-Time-IncrDecrThres,
  ...
}

ReportCharacteristicsType-MeasurementThreshold ::= CHOICE {
  rssi                RSSI-Value,
  transmitted-carrier-power Transmitted-Carrier-Power-Value,
  acknowledged-ra-tries Acknowledged-RA-Tries-Value,
  timeslot-iscp       TimeSlot-ISCP-Value,
  sir                 SIR-Value,
  sir-error           SIR-Error-Value,
  transmitted-code-power Transmitted-Code-Power-Value,
  rscp                RSCP-Value,
  round-trip-time    Round-Trip-Time-Value,
  ...
}

ReportCharacteristicsType-ScaledMeasurementChangeTime ::= INTEGER (1..600)
-- ReportCharacteristicsType-MeasurementChangeTime = Time * 10

```

```
-- Unit ms, Range 10ms .. 6000ms(1min), Step 10ms

ReportCharacteristicsType-ScaledMeasurementHysteresisTime ::= INTEGER (1..600)
-- ReportCharacteristicsType-MeasurementHysteresisTime = Time * 10
-- Unit ms, Range 10ms .. 6000ms(1min), Step 10ms

ReportCharacteristicsType-ReportPeriodicity ::= CHOICE {
    msec          ReportPeriodicity-Scaledmsec,
    min          ReportPeriodicity-Scaledmin
}

ReportPeriodicity-Scaledmsec ::= INTEGER (1..600)
-- ReportPeriodicity-msec = ReportPeriodicity * 10
-- Unit ms, Range 10ms .. 6000ms(1min), Step 10ms

ReportPeriodicity-Scaledmin ::= INTEGER (1..60)
-- Unit min, Range 1min .. 60min(hour), Step 1min

ResourceOperationalState ::= ENUMERATED {
    enabled,
    disabled,
    ...
}

LimitedPowerIncrease ::= ENUMERATED {
    used,
    not-used
}

RL-ID ::= INTEGER (0..31)

RL-Set-ID          ::= INTEGER (0..31)

Round-Trip-Time-IncrDecrThres ::= INTEGER(0..8190)

Round-Trip-Time-Value ::= INTEGER(0..8191)
-- According to mapping in 25.215

RSCP-Value ::= INTEGER (0..81)
-- According to mapping in 25.225

RSCP-Value-IncrDecrThres ::= INTEGER (0..80)

RSSI-Value ::= INTEGER(0..63)
-- According to mapping in 25.215/25.225

RSSI-Value-IncrDecrThres ::= INTEGER (0..62)
```

## CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

**25.433 CR 087 R2**

Current Version: **3.1.0.**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **TSG RAN #8**

list expected approval meeting # here  
 ↑

for approval   
 for information

Strategic   
 non-strategic  (for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:** (U)SIM  ME  UTRAN / Radio  Core Network   
 (at least one should be marked with an X)

**Source:** R-WG3 **Date:** April, 2000

**Subject:** Clarification of System Information Broadcast procedure

**Work item:**

<b>Category:</b>	F Correction	<input checked="" type="checkbox"/>	<b>Release:</b>	Phase 2	<input type="checkbox"/>
(only one category shall be marked with an X)	A Corresponds to a correction in an earlier release	<input type="checkbox"/>		Release 96	<input type="checkbox"/>
	B Addition of feature	<input type="checkbox"/>		Release 97	<input type="checkbox"/>
	C Functional modification of feature	<input type="checkbox"/>		Release 98	<input type="checkbox"/>
	D Editorial modification	<input type="checkbox"/>		Release 99	<input checked="" type="checkbox"/>
				Release 00	<input type="checkbox"/>

**Reason for change:**

In the current revision of the standard, several details regarding updating/ rescheduling Information Blocks are unclear:

E.g. it is not clear what the node-B should do when receiving an IB with the same IB-type as already included in the schedule: should it remove the IB currently present, should it just include the new IB as well or is this a scheduling error ?

This CR attempts to resolve these ambiguities. The proposal is based on the following principles:

- 1) Updates of content of IB's currently included in the schedule (but without rescheduling segments of these IB's) can be made by directly providing the new contents of all IB segments. No IB\_SEG\_REP or IB\_SEG\_POS shall be included in this case.
- 2) Re-scheduling of an IB can only be achieved by first deleting this IB and all IB's with segment positions which conflict with the new IB segments, followed by adding the IB again. If any of the new IB segments uses a schedule position which is already used and cannot be combined with the existing segment into a valid segment combination, a scheduling error will be reported.

This approach has two advantages:

- a) It clearly separates the relatively frequently executed content updates and the relatively infrequently executed segment scheduling updates.
- b) For detecting most scheduling errors, it will not be required to process the complete request message: after having processed each MIB/SIB information group repetition, a valid schedule shall result.

One additional change has been made: Since also the scheduling of MIB segments can be changed, also the MIB can be deleted.

**Clauses affected:** 2; 8.2.16; 9.1.32; 9.2.1.6; 9.2.1.49; 9.3.3.;9.3.4

<b><u>Other specs affected:</u></b>	Other 3G core specifications	<input type="checkbox"/>	→ List of CRs:	
	Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:	
	MS test specifications	<input type="checkbox"/>	→ List of CRs:	
	BSS test specifications	<input type="checkbox"/>	→ List of CRs:	
	O&M specifications	<input type="checkbox"/>	→ List of CRs:	

**Other comments:**



---

## 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

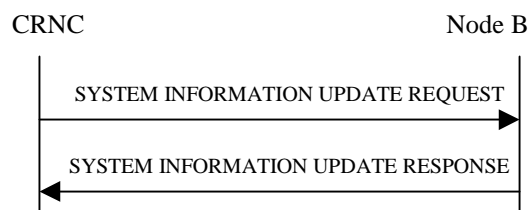
- [1] 3G TS 25.401: "UTRAN Overall Description".
- [2] 3G TS 25.426: "UTRAN I<sub>ur</sub> and I<sub>ub</sub> Interface Data Transport & Transport Signalling for DCH Data Streams".
- [3] CCITT Recommendation X.731 (01/92): "Information Technology – Open Systems Interconnection – Systems Management: State Management function".
- [4] 3G TS 25.215: "Physical layer – Measurements (FDD)".
- [5] 3G TS 25.225: "Physical layer – Measurements (TDD)".
- [6] 3G TS 25.430: "UTRAN Iub General Aspect and Principle".
- [7] 3G TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".
- [8] 3G TS 25.212: "Multiplexing and channel coding (FDD)".
- [9] 3G TS 25.213: "Spreading and modulation (FDD)".
- [10] 3G TS 25.214: "Physical layer procedures (FDD)".
- [11] X.691, (12/94) "Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER)".
- [12] X.680, (12/94) "Information Technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".
- [13] X.681, (12/94) "Information Technology - Abstract Syntax Notation One (ASN.1): Information object specification"
- [14] 3G TS 25.104: "UTRA (BS) FDD; Radio Transmission and Reception".
- [15] 3G TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception".
- [16] [3G TS 25.331: "RRC protocol specification"](#).

## 8.2.16 System Information Update

### 8.2.16.1 General

The System Information Update procedure performs the scheduling and provision of system information segments broadcast on the BCCH, to the Node B.

### 8.2.16.2 Successful Operation



**Figure 22: System Information Update procedure: Successful Operation**

The procedure is initiated with a SYSTEM INFORMATION UPDATE REQUEST message sent from the CRNC to the Node B.

The Node B shall consider the requested updates to the BCCH schedule in the same order as the MIB/SIB information is included in the SYSTEM INFORMATION UPDATE REQUEST message.

If the SYSTEM INFORMATION UPDATE message includes the BCCH Modification Time IE, the updates to the BCCH schedule (possibly consisting of IB additions, IB deletions and IB content updates) indicated in the SYSTEM INFORMATION UPDATE REQUEST message shall be applied by Node B at the first time instance starting from the SFN value set by the BCCH Modification Time IE. If no BCCH Modification Time IE is included, the updates to the BCCH schedule shall be applied as soon as possible.

#### Information Block addition

If the SYSTEM INFORMATION UPDATE REQUEST message includes segments of a certain MIB/SIB, the Node-B shall assume that all segments for that Information Block are included in the message and ordered with increasing Segment Index (starting from 0).

~~If the SYSTEM INFORMATION UPDATE message includes the BCCH Modification Time IE, the new segments provided in the SYSTEM INFORMATION UPDATE REQUEST message shall be applied by Node B at the first time instance starting from the SFN value set by the BCCH Modification Time IE. If no BCCH Modification Time IE is included, the new segments shall be applied as soon as possible.~~

The Node B shall determine the correct cell system frame number(s) (SFN) for transmission of the segments of system information, from the scheduling parameters provided in the SYSTEM INFORMATION UPDATE REQUEST message. The SFN for transmitting the segments shall be determined by the ~~SIB-SG-REP~~ SIB-SG-REP IE and ~~SIB-SG-POS~~ SIB-SG-POS IE such that:

- SFN mod IB\_SG\_REP = IB\_SG\_POS

If the SYSTEM INFORMATION UPDATE REQUEST message contains Master Information Block (MIB) segments in addition to SIB segments, the MIB segments shall be updated last in the physical channel scheduling cycle by the Node B.

~~The Segment Type IE shall be used by the Node B to concatenate several segments into one BCH transport block. The allowed combinations of concatenation are specified in TS 25.331. Only if the inclusion of each new IB segment in the BCCH schedule leads to a valid segment combination according to [16], the Node B shall accept the system information update.~~

~~If the SIB-Deletion-Indicator IE value is set to 'Deletion' the Node B shall delete the SIB of the type indicated by the SIB-Type IE from the transmission schedule on BCCH.~~

If the SIB Originator IE value is set to 'Node B ' the Node B shall create the SIB segment of the SIB type given by the IB Type IE and autonomously update the SIB segment and apply the scheduling and repetition as given by the IB SG REP IE and IB SG POS IE.

SIBs originating from the Node B can only be SIBs containing information that the Node B can obtain on its own.

#### **Information Block deletion**

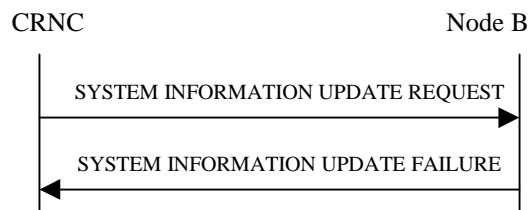
If the IB Deletion Indicator IE value is set to 'Deletion' the Node B shall delete the IB of the type indicated by the IB Type IE from the transmission schedule on BCCH.

#### **Information Block update**

If the SYSTEM INFORMATION UPDATE REQUEST message contains segments for an IB and there is already an IB in the BCCH schedule with the same IB Type which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a MIB/SIB information IE group repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB segments are included, then the Node B shall only update the contents of the IB segments without any modification in segment scheduling.

If the Node B successfully completes the updating of the physical channel scheduling cycle according to the parameters given in the SYSTEM INFORMATION UPDATE REQUEST message, it shall respond to the CRNC with a SYSTEM INFORMATION UPDATE RESPONSE message.

### 8.2.16.3 Unsuccessful Operation



**Figure 23: System Information Update procedure: Unsuccessful Operation**

If the Node B is unable to update the physical channel scheduling cycle according to all the parameters given in the SYSTEM INFORMATION UPDATE REQUEST message, it shall respond with a SYSTEM INFORMATION UPDATE FAILURE message with an appropriate cause value. No changes to the BCCH schedule are made in this case.

Node B shall reject, with cause value 'SIB origination in Node B not supported', requests for Node B originated system information blocks that make use of a value tag.

Node B shall reject the requested update with cause value "BCCH scheduling error" if:

- after having handled a certain MIB/SIB information IE group repetition, an illegal BCCH schedule results;
- if a MIB/SIB information IE group repetition includes an IB SG REP IE or an IB SG POS IE and there is already an IB in the BCCH schedule with the same IB Type which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a MIB/SIB information IE group repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated;
- if a MIB/SIB information IE group repetition includes no IB SG REP IE and IB SG POS IE and there is no IB in the BCCH schedule with the same IB Type;
- if a MIB/SIB information IE group repetition includes no IB SG REP IE and IB SG POS IE and there is already an IB in the BCCH schedule with the same IB Type but it is requested to be deleted from the BCCH schedule by an IB deletion indicated in a MIB/SIB information IE group repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated;

Possible cause values are:

**Radio Network Layer Cause**

- Insufficient physical channel resources
- Unknown C-ID
- SIB Origination in Node B not Supported
- BCCH scheduling error

**Miscellaneous Cause**

- Hardware failure
- Control Processing overload
- O&M Intervention
- Unspecified

In the case of failure, the Node B shall not incorporate any of the requested changes into the physical channel scheduling cycle, and the previous system information configuration shall remain intact.

**8.2.16.4 Abnormal Conditions**

-

## 9.1.32 SYSTEM INFORMATION UPDATE REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Transaction ID	M				–	
C-ID	M				YES	reject
BCCH Modification Time	O				YES	reject
<b>MIB/SIBInformation</b>		1.. <i>maxIB</i>			GLOBAL	reject
>IB Type	M			In one message, every IB Type can only be <u>deleted once</u> and/or <u>added indicated</u> once.	–	
>SIB Deletion Indicator	C-NotMIB				–	
>CHOICE <i>IB DeletionIndicator</i>						
>NoDeletion					YES	reject
>>SIB Originator	C-NotMIB				–	
>>IB SG REP	<u>MO</u>				–	
>>>Segment Information		1.. <i>maxIBSEG</i>			GLOBAL	reject
>>>IB SG POS	<u>MO</u>				–	
>>>IB SG DATA	C – CRNCOri nation				–	
> <u>Deletion</u>			<u>NULL</u>			

Range bound	Explanation
1.. <i>maxIB</i>	Maximum number of information Blocks supported in a physical channel scheduling cycle
1.. <i>maxIBSEG</i>	Maximum number of segments for one Information Block

Condition	Explanation
CRNCOri nation	The IE shall be present if <i>the SIB Originator</i> IE is set to 'CRNC'
NotMIB	This IE shall be present if the IB Type is not equal to "MIB"

## 9.2.1.6 Cause

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, RL Already Activated/allocated, Node B Resources Unavailable, Insufficient physical channel resources, Measurement not supported for the object, Macrodiversity combining not possible, Reconfiguration not allowed, Requested configuration not supported, Synchronization failure, Priority transport channel established,SIB Origination in Node B not Supported, <u>BCCH scheduling error</u> , Unspecified)	
>Transport Layer				
>Transport Layer Cause	M		Enumerated (Transport link failure, Transmission port not available, Transport resource unavailable, Unspecified)	
>Protocol				
>Protocol Cause			Enumerated (Transaction not allowed, Transfer syntax error, Abstract syntax error (reject), Abstract syntax error (ignore and notify), Message not compatible with receiver state, Semantic error,  Unspecified)	
>Misc				
>Miscellaneous Cause	M		Enumerated (Control processing overload Hardware failure, O&M intervention, Not enough user plane processing resources, Unspecified)	

### 9.2.1.49 SIB Deletion Indicator

Indicates if the SIB shall be deleted or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SIB Deletion Indicator			Enumerated(NoDeletion, Deletion)	

```

-- *****
--
-- SYSTEM INFORMATION UPDATE REQUEST
--
-- *****

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

SystemInformationUpdateRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID
      PRESENCE mandatory } |
    { ID    id-BCCH-ModificationTime
      BCCH-ModificationTime
      PRESENCE optional } |
    { ID    id-MIB-SIB-InformationList-SystemInfoUpdateRqst
      SIB-InformationList-SystemInfoUpdateRqst
      PRESENCE mandatory } ,
    ...
}

SystemInformationUpdateRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MIB-SIB-InformationList-SystemInfoUpdateRqst ::= SEQUENCE (SIZE (1..maxIB)) OF MIB-SIB-
InformationItem-SystemInfoUpdateRqst

MIB-SIB-InformationItem-SystemInfoUpdateRqst ::= SEQUENCE {
    iB-Type                IB-Type,
    sIB-DeletionIndicator SIB-DeletionIndicator OPTIONAL,
    This IE shall be present if the IB-Type is not equal to "MIB"
    deletionIndicator      DeletionIndicator-SystemInfoUpdate,
    iE-Extensions          ProtocolExtensionContainer { { MIB-SIB-InformationItem-
SystemInfoUpdateRqst-ExtIEs} }    OPTIONAL,
    ...
}

MIB-SIB-InformationItem-SystemInfoUpdateRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DeletionIndicator-SystemInfoUpdate ::= CHOICE {
    no-Deletion            No-Deletion-SystemInfoUpdate,
    yes-Deletion          NULL,
    ...
}

No-Deletion-SystemInfoUpdate ::= ProtocolIE-Container {{ No-DeletionIE-SystemInfoUpdate }}

No-DeletionIE-SystemInfoUpdate NBAP-PROTOCOL-IES ::= {
    { ID id-No-DeletionItem-SystemInfoUpdate
      SystemInfoUpdate
      PRESENCE mandatory } ,
    ...
}

No-DeletionItem-SystemInfoUpdate ::= SEQUENCE {
    sIB-Originator          SIB-Originator          OPTIONAL,
    -- This IE shall be present if the IB-Type is not equal to "MIB"
    iB-SG-REP               IB-SG-REP              OPTIONAL,
    segmentInformationList  SegmentInformationList-SystemInfoUpdate,
    iE-Extensions           ProtocolExtensionContainer { { No-DeletionItem-
SystemInfoUpdate-ExtIEs} }    OPTIONAL,
    ...
}

No-DeletionItem-SystemInfoUpdate-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SegmentInformationList-SystemInfoUpdate ::= ProtocolIE-Container {{ SegmentInformationListIEs-
SystemInfoUpdate }}

SegmentInformationListIEs-SystemInfoUpdate NBAP-PROTOCOL-IES ::= {
    { ID id-SegmentInformationListIE-SystemInfoUpdate
      SegmentInformationListIE-SystemInfoUpdate
      PRESENCE mandatory } ,
    ...
}

```



```
    ...
}

SegmentInformationListIE-SystemInfoUpdate ::= SEQUENCE (SIZE (1..maxIBSEG)) OF
SegmentInformationItem-SystemInfoUpdate

SegmentInformationItem-SystemInfoUpdate ::= SEQUENCE {
|   iB-SG-POS                IB-SG-POS OPTIONAL,
   iB-SG-DATA                IB-SG-DATA    OPTIONAL,
   -- This IE shall be present if the SIB Originator IE is set to "CRNC"
   iE-Extensions            ProtocolExtensionContainer { { SegmentInformationItem-
SystemInfoUpdate-ExtIEs} } OPTIONAL,
   ...
}

SegmentInformationItem-SystemInfoUpdate-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   ...
}
```

```

-- =====
-- C
-- =====

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

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

CauseProtocol ::= ENUMERATED {
    transaction-not-allowed,
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    ...
}

CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-scramblingcode-already-in-use,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    r1-already-ActivatedOrAllocated,
    nodeB-Resources-unavailable,
    insufficient-physical-channel-resources,
    measurement-not-supported-for-the-object,
    macrodiversity-combining-not-possible,
    reconfiguration-not-allowed,
    requested-configuration-not-supported,
    synchronisation-failure,
    sIB-Origination-in-Node-B-not-Supported,
    unspecified,
    priority-transport-channel-established,
    bCCH-scheduling-error,
    ...
}

CauseTransport ::= ENUMERATED {
    transport-link-failure,
    transmission-port-not-available,
    transport-resource-unavailable,
    unspecified,
    ...
}

CCTrCH-ID ::= INTEGER (0..15)

CellParameterID ::= INTEGER (0..127)

CFN ::= INTEGER (0..255)

CFNOffset ::= INTEGER (0..255)

ChipOffset ::= INTEGER (0..38399)
-- Unit Chip

C-ID ::= INTEGER (0..65535)

.....

```

```

-- =====
-- S
-- =====

ScaledMaxAdjustmentPeriod      ::= INTEGER(1..50)
-- MaxAdjustmentPeriod (slots) = 10 * ScaledMaxAdjustmentPeriod

ScaledMaxAdjustmentStep        ::= INTEGER(1..10)
-- MaxAdjustmentStep (dB) = ScaledMaxAdjustmentStep / 10

ScramblingCodeChange ::= ENUMERATED {
    code-change,
    no-code-change,
    ...
}

ScramblingCodeWordNumber ::= INTEGER (0..255)

SecondaryCCPCH-SlotFormat ::= INTEGER(0..17)

S-FieldLength ::= ENUMERATED {
    v1,
    v2,
    ...
}

-- to do, This parameter is present in NBAP tabular but not defined in IE(TS25.433v3.0.0)
SFN ::= INTEGER

ShutdownTimer ::= INTEGER (1..3600)
-- Unit sec

SIB-DeletionIndicator ::= ENUMERATED {
    noDeletion,
    deletion,
    ...
}

SIB-Originator ::= ENUMERATED {
    nodeB,
    cRNC,
    ...
}

SIR-Error-Value ::= INTEGER (0..125)

SIR-Error-Value-IncrDecrThres ::= INTEGER (0..124)

SIR-Value ::= INTEGER (0..63)
-- According to mapping in 25.215/25.225

SIR-Value-IncrDecrThres ::= INTEGER (0..62)

SSDT-Cell-Identity ::= ENUMERATED {a, b, c, d, e, f, g, h}

SSDT-CellID-Length ::= ENUMERATED {
    short,
    medium,
    long,
    ...
}

SSDT-Indication ::= ENUMERATED {
    ssdt-active-in-the-UE,
    ssdt-not-active-in-the-UE,
    ...
}

STTD-Indicator ::= ENUMERATED {
    active,
    inactive,
    ...
}

SSDT-SupportIndicator ::= ENUMERATED {
    sSDT-Supported,
    sSDT-not-supported,
    ...
}

```

}

SyncCase ::= INTEGER (1..2)

**CHANGE REQUEST**

*Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.*

**25.433 CR 088R2**

Current Version: **3.1.0.**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **TSG RAN #8**  
list expected approval meeting # here ↑

for approval   
for information

Strategic   
non-strategic  (for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

**Proposed change affects:** (U)SIM  ME  UTRAN / Radio  Core Network   
(at least one should be marked with an X)

**Source:** R-WG3 **Date:** April , 2000

**Subject:** Handling of Closed Loop Timing Adjustment mode over NBAP

**Work item:**

<b>Category:</b>	F Correction	<input checked="" type="checkbox"/>	<b>Release:</b>	Phase 2	<input type="checkbox"/>
<small>(only one category shall be marked with an X)</small>	A Corresponds to a correction in an earlier release	<input type="checkbox"/>		Release 96	<input type="checkbox"/>
	B Addition of feature	<input type="checkbox"/>		Release 97	<input type="checkbox"/>
	C Functional modification of feature	<input type="checkbox"/>		Release 98	<input type="checkbox"/>
	D Editorial modification	<input type="checkbox"/>		Release 99	<input checked="" type="checkbox"/>
				Release 00	<input type="checkbox"/>

**Reason for change:** Based on e.g. cell size, L1 (25.214) provides two possibilities for the delay between receipt of an UL feedback command and the time the adjustment is made in the DL.  
This contribution proposes to include the concerning configuration parameter in the CELL\_SETUP\_REQUEST message. The parameter is introduced as an optional parameter, only to be included if FB mode diversity may be applied in the concerning cell.

**Clauses affected:** 8.2.12; 8.2.17; 8.3.1; 9.1.23.1; 9.2.1.6; 9.2.2.x; 9.3.3; 9.3.4.;9.3.7

**Other specs affected:**

Other 3G core specifications	<input type="checkbox"/>	→ List of CRs:	
Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:	
MS test specifications	<input type="checkbox"/>	→ List of CRs:	
BSS test specifications	<input type="checkbox"/>	→ List of CRs:	
O&M specifications	<input type="checkbox"/>	→ List of CRs:	

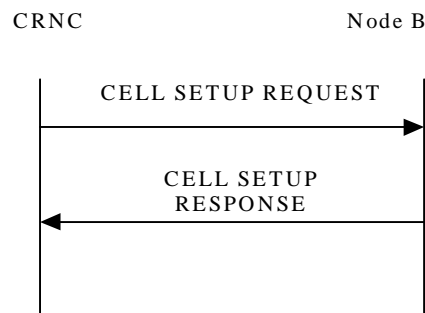
**Other comments:**

## 8.2.12 Cell Setup

### 8.2.12.1 General

This procedure is used to set up a cell in Node B. The CRNC takes the cell, identified via the *C-ID* IE, into service and uses the resources in Node B identified via the *Local Cell ID* IE.

### 8.2.12.2 Successful Operation



**Figure 11: Cell Setup procedure: Successful Operation**

The procedure is initiated with a CELL SETUP REQUEST message sent from CRNC to Node B. Upon Reception, the Node B shall reserve the necessary resources and configure the new cell according to the parameters given in the message.

[FDD - If the CELL SETUP REQUEST message includes one or more *Secondary CPICH Information* IE group the Node B shall configure and activate the Secondary CPICH(s) in the cell according to received configuration data.]

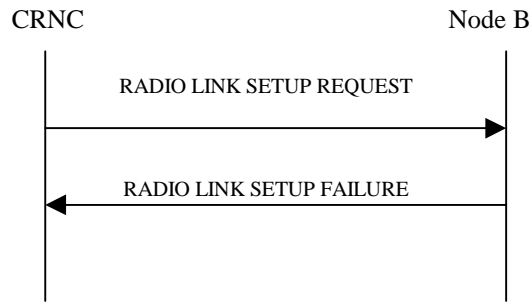
The *Maximum Transmission Power* IE value shall be stored in the Node B and at any instance of time the total maximum output power in the cell shall not be above this value.

[FDD - If the *Closed Loop Timing Adjustment Mode* IE is included in the CELL SETUP REQUEST message, the value shall be stored in the Node B and applied when closed loop Feed-Back mode diversity is used on DPCH.]

When the cell is successfully configured the Node B shall store the *Configuration Generation ID* IE value and send a CELL SETUP RESPONSE message as a response.

[FDD- When the cell is successfully configured CPICH(s), Primary SCH, Secondary SCH, Primary CCPCH and BCH exist.][TDD- When the cell is successfully configured SCH, Primary CCPCH and BCH exist and the switching-points for the TDD frame structure are defined.]

### 8.2.17.3 Unsuccessful Operation



**Figure 2: Radio Link Setup procedure: Unsuccessful Operation**

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK SETUP FAILURE message. The message contains the failure cause in the *Cause* IE.

If some radio links were established successfully, the Node B shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.

[FDD - If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected DCH" the DRNS shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message]

[FDD – When the *Diversity Mode* IE equals "*Closedloop mode1*" or "*Closedloop mode2*" and no *Closed Loop Timing Adjustment Mode* was configured for a cell during cell setup, establishment of the concerning RL shall fail with cause value "*No Closed Loop Timing Adjustment Mode configured*".]

Typical cause values are as follows:

#### Radio Network Layer Cause

- RL Already Activated/allocated
- No Closed Loop Timing Adjustment Mode configured

#### Transport Layer Cause

- Transport Resources Unavailable

#### Protocol Cause

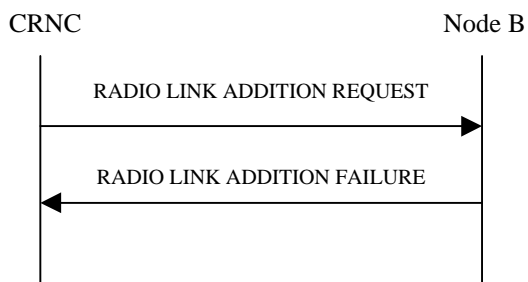
- Semantic error

#### Miscellaneous Cause

- O&M Intervention
- Unspecified
- Control processing overload
- HW failure

### 8.2.17.4 Abnormal Conditions

### 8.3.1.3 Unsuccessful Operation



**Figure 29: Radio Link Addition procedure: Unsuccessful Operation**

If some RL(s) were established successfully, the Node B shall indicate this in the RADIO LINK ADDITION FAILURE message in the same way as in the RADIO LINK ADDITION RESPONSE message.

[FDD – When the Diversity Mode IE equals “Closedloop mode1” or “Closedloop mode2” and no Closed Loop Timing Adjustment Mode was configured for a cell during cell setup, establishment of the concerning RL shall fail with cause value “No Closed Loop Timing Adjustment Mode configured” ].

Typical cause values are as follows:

#### Radio Network Layer Cause

- RL Already Activated/allocated
- No Closed Loop Timing Adjustment Mode configured

#### Transport Layer Cause

- Transport Resources Unavailable

#### Protocol Cause

- Semantic error

#### Miscellaneous Cause

- O&M Intervention
- Unspecified
- Control processing overload
- HW failure

### 8.3.1.4 Abnormal conditions

-



## 9.1.23 CELL SETUP REQUEST

## 9.1.23.1 FDD Message

IE/Group Name	Presence	Range	IE type and Reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M				–	
Message Type	M				YES	reject
Transaction ID	M				–	
Local Cell Id	M				YES	reject
C-Id	M				YES	reject
Configuration Generation Id	M				YES	reject
T Cell	M				YES	reject
UARFCN	M			Corresponds to Nu [TS25.104]	YES	reject
UARFCN	M			Corresponds to Nd [TS25.104]	YES	reject
Maximum transmission power	M				YES	reject
Closed Loop Timing Adjustment Mode	O				YES	reject
Primary scrambling code	M				YES	reject
<b>Primary SCH Information</b>		1			YES	reject
>Common Physical Channel ID	M				–	
>Primary SCH Power	M		DL Power		–	
>TSTD Indicator	M				–	
<b>Secondary SCH Information</b>		1			YES	reject
>Common Physical Channel ID	M				–	
>Secondary SCH power	M		DL Power		–	
>TSTD Indicator	M				–	
<b>Primary CPICH Information</b>		1			YES	reject
>Common Physical Channel ID	M				–	
>Primary CPICH power	M				–	
>Transmit Diversity Indicator	M				–	
<b>Secondary CPICH Information</b>		0..<maxSC PICHCell>			YES	reject
>Common Physical Channel ID	M				–	
>DL Scrambling code	M				–	
>FDD DL Channelisation Code Number	M				–	
>Secondary CPICH Power	M		DL Power		–	
>Transmit Diversity Indicator	M				–	
<b>Primary CCPCH Information</b>		1			YES	reject
>Common Physical Channel ID	M				–	
<b>&gt;BCH Information</b>		1			–	
>>Common Transport Channel ID	M				–	
>>BCH Power	M		DL Power		–	
>STTD Indicator	M				–	

<b>Range bound</b>	<b>Explanation</b>
maxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.

## 9.2.1.6 Cause

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE <i>Cause group</i>				
> <i>Radio Network Layer</i>				
>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, RL Already Activated/allocated, Node B Resources Unavailable, Insufficient physical channel resources, Measurement not supported for the object, Macrodiversity combining not possible, Reconfiguration not allowed, Requested configuration not supported, Synchronization failure, Priority transport channel established,SIB Origination in Node B not Supported, <a href="#">No Closed Loop Timing Adjustment Mode configured</a> , Unspecified, ...)	
> <i>Transport Layer</i>				
>Transport Layer Cause	M		Enumerated (Transport link failure, Transmission port not available, Transport resource unavailable, Unspecified, ...)	
> <i>Protocol</i>				
>Protocol Cause			Enumerated (Transaction not allowed, Transfer syntax error, Abstract syntax error (reject), Abstract syntax error (ignore and notify), Message not compatible with receiver state, Semantic error, Unspecified, ...)	
> <i>Misc</i>				
>Miscellaneous Cause	M		Enumerated (Control processing overload Hardware failure, O&M intervention, Not enough user plane processing resources, Unspecified, ...)	

9.2.2.x Closed Loop Timing Adjustment Mode

Indicates when the phase/amplitude adjustment is performed in the DL in relation to the receipt of the UL feedback command in case of closed loop mode transmit diversity on DPCH.

<u>Information Element/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Closed Loop Timing Adjustment Mode</u>			<u>ENUMERATED (Offset1, Offset2,...)</u>	<u>According to 25.214 chapter 7.1: Offset1 = slot(j+1)mod15 Offset2 = slot(j+2)mod15</u>

### 9.3.3 NBAP PDU Content Definitions

```

-- *****
--
-- PDU definitions for NBAP.
--
-- *****

NBAP-PDU-Contents -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- *****
--
-- IE parameter types from other modules.
--
-- *****

IMPORTS
    AddorDeleteIndicator,
    AICH-TransmissionTiming,
    AvailabilityStatus,
    BCCH-ModificationTime,
    BindingID,
    BlockingPriorityIndicator,
    BlockSTD-Indicator,
    BurstType,
    Cause,
    CCH-CH-ID,
    CellParameterID,
    CFN,
    CFNOffset,
    ChipOffset,
    C-ID,
    Closedloopoptimingadjustmentmode,
    CommonChannelsCapacityConsumptionLaw,
    CommonMeasurementType,
    CommonMeasurementValue,
    CommonPhysicalChannelID,
    CommonTransportChannelID,
    CommunicationControlPortID,
    CompressedModeMethod,
    ConfigurationGenerationID,
    CriticalityDiagnostics,
    CRNC-CommunicationContextID,
    DCH-CombinationInd,
    DCH-ID,
    DedicatedMeasurementObjectType,
    DedicatedChannelsCapacityConsumptionLaw,
    DedicatedMeasurementType,
    DedicatedMeasurementValue,
    D-FieldLength,
    DiversityControlField,
    DiversityMode,
    DL-DPCH-SlotFormat,
    DL-FrameType,
    DL-or-Global-CapacityCredit,
    DL-Power,
    DL-ScramblingCode,
    DPCH-ID,
    DSCH-ID,
-- to do
    DSCH-TFS,
    FDD-DL-ChannelisationCodeNumber,
    FDD-S-CCPCH-Offset,
    FDD-TPC-DownlinkStepSize,
    FrameHandlingPriority,
    FrameOffset,
    GapPeriod,
    GapPositionMode,
    IB-SG-DATA,
    IB-SG-POS,
    IB-SG-REP,
    IB-Type,

```

.....

FROM NBAP-Containers

id-AICH-InformationItem-AuditRsp,  
id-AICH-InformationItem-ResourceStatusInd,  
id-AICH-ParametersList-CTCH-ReconfRqstFDD,  
id-AllRLItem-DM-Rprt,  
id-AllRLItem-DM-Rsp,  
id-AllRLItem-Set-DM-Rprt,  
id-AllRLItem-Set-DM-Rsp,  
id-BCH-InformationItem-AuditRsp,  
id-BCH-InformationItem-ResourceStatusInd,  
id-BCCH-ModificationTime,  
id-BlockingPriorityIndicator,  
id-Case1Item-Cell-SetupRqstTDD,  
id-Case2Item-Cell-SetupRqstTDD,  
id-Cause,  
id-CCP-InformationItem-AuditRsp,  
id-CCP-InformationList-AuditRsp,  
id-CCP-InformationItem-ResourceStatusInd,  
id-Cell-InformationItem-AuditRsp,  
id-Cell-InformationItem-ResourceStatusInd,  
id-Cell-InformationList-AuditRsp,  
id-CellItem-CM-Rprt,  
id-CellItem-CM-Rqst,  
id-CellItem-CM-Rsp,  
id-CellParameterID,  
id-CFN,  
id-C-ID,  
id-Closed-Loop-Timing-Adjustment-Mode,  
id-CombiningItem-RL-AdditionFailureFDD,  
id-CombiningItem-RL-AdditionRspFDD,  
id-CombiningItem-RL-AdditionRspTDD,  
id-CombiningItem-RL-SetupFailureFDD,  
id-CombiningItem-RL-SetupRspFDD,  
id-CommonMeasurementObjectType-CM-Rprt,  
id-CommonMeasurementObjectType-CM-Rqst,  
id-CommonMeasurementObjectType-CM-Rsp,  
id-CommonMeasurementType,  
id-CommonPhysicalChannelID,  
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD,  
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD,  
id-CommonTransportChannelType-CTCH-ReconfRqstTDD,  
id-CommonTransportChannelType-CTCH-SetupRsp,  
id-CommunicationControlPortID,  
id-CM-PatternInformationItem-CompressedModePrep,  
id-CM-PatternInformationList-CompressedModePrep,  
id-ConfigurationGenerationID,  
id-CRNC-CommunicationContextID,  
id-CriticalityDiagnostics,  
id-DCH-AddListIE-RL-ReconfReady,  
id-DCH-AddListIE-RL-ReconfRsp,  
id-DCH-AddList-RL-ReconfPrepFDD,  
id-DCH-AddList-RL-ReconfPrepTDD,  
id-DCH-AddList-RL-ReconfRqstFDD,

.....

```

-- *****
--
-- CELL SETUP REQUEST FDD
--
-- *****

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

CellSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-Local-Cell-ID                CRITICALITY  reject
    TYPE      Local-Cell-ID                    PRESENCE      mandatory  }|
    { ID      id-C-ID                          CRITICALITY  reject
    TYPE      C-ID                              PRESENCE      mandatory  }|
    { ID      id-ConfigurationGenerationID     CRITICALITY  reject
    TYPE      ConfigurationGenerationID        PRESENCE      mandatory  }|
    { ID      id-T-Cell                        CRITICALITY  reject
    TYPE      T-Cell                            PRESENCE      mandatory  }|
    { ID      id-UARFCNforNu                   CRITICALITY  reject
    TYPE      UARFCN                            PRESENCE      mandatory  }|
    { ID      id-UARFCNforNd                   CRITICALITY  reject
    TYPE      UARFCN                            PRESENCE      mandatory  }|
    { ID      id-MaximumTransmissionPower     CRITICALITY  reject
    TYPE      MaximumTransmissionPower        PRESENCE      mandatory  }|
    { ID      id-Closed-Loop-Timing-Adjustment-Mode CRITICALITY  reject
    TYPE      ClosedloopTimingadjustmentmode  PRESENCE      optional    }|
    { ID      id-PrimaryScramblingCode         CRITICALITY  reject
    TYPE      PrimaryScramblingCode           PRESENCE      mandatory  }|
    { ID      id-PrimarySCH-Information-Cell-SetupRqstFDD CRITICALITY  reject
    TYPE      PrimarySCH-Information-Cell-SetupRqstFDD PRESENCE      mandatory  }|
    { ID      id-SecondarySCH-Information-Cell-SetupRqstFDD CRITICALITY  reject
    TYPE      SecondarySCH-Information-Cell-SetupRqstFDD PRESENCE      mandatory  }|
    { ID      id-PrimaryCPICH-Information-Cell-SetupRqstFDD CRITICALITY  reject
    TYPE      PrimaryCPICH-Information-Cell-SetupRqstFDD PRESENCE      mandatory  }|
    { ID      id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD CRITICALITY  reject
    TYPE      SecondaryCPICH-InformationList-Cell-SetupRqstFDD PRESENCE      optional    }|
    { ID      id-PrimaryCCPCH-Information-Cell-SetupRqstFDD CRITICALITY  reject
    TYPE      PrimaryCCPCH-Information-Cell-SetupRqstFDD PRESENCE      mandatory  },
    ...
}

CellSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimarySCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    primarySCH-Power              DL-Power,
    tSTD-Indicator                TSTD-Indicator,
    iE-Extensions                 ProtocolExtensionContainer { { PrimarySCH-Information-
Cell-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

PrimarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondarySCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    secondarySCH-Power           DL-Power,
    tSTD-Indicator                TSTD-Indicator,
    iE-Extensions                 ProtocolExtensionContainer { { SecondarySCH-Information-
Cell-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

SecondarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCPICH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    primaryCPICH-Power           PrimaryCPICH-Power,

```

```

        transmitDiversityIndicator          TransmitDiversityIndicator,
        iE-Extensions                      ProtocolExtensionContainer { { PrimaryCPICH-Information-
Cell-SetupRqstFDD-ExtIEs} }      OPTIONAL,
        ...
    }

PrimaryCPICH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondaryCPICH-InformationList-Cell-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF
ProtocolIE-Container{{ SecondaryCPICH-InformationItemIE-Cell-SetupRqstFDD }}

SecondaryCPICH-InformationItemIE-Cell-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD      CRITICALITY      reject
    TYPE      SecondaryCPICH-InformationItem-Cell-SetupRqstFDD      PRESENCE          mandatory},
    ...
}

SecondaryCPICH-InformationItem-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    dl-ScramblingCode                DL-ScramblingCode,
    fdd-DL-ChannelisationCodeNumber  FDD-DL-ChannelisationCodeNumber,
    secondaryCPICH-Power              DL-Power,
    transmitDiversityIndicator        TransmitDiversityIndicator,
    iE-Extensions                    ProtocolExtensionContainer { { SecondaryCPICH-
InformationItem-Cell-SetupRqstFDD-ExtIEs} }      OPTIONAL,
    ...
}

SecondaryCPICH-InformationItem-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    bCH-information                  BCH-Information-Cell-SetupRqstFDD,
    sTTD-Indicator                   sTTD-Indicator,
    iE-Extensions                    ProtocolExtensionContainer { { PrimaryCCPCH-Information-
Cell-SetupRqstFDD-ExtIEs} }      OPTIONAL,
    ...
}

PrimaryCCPCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    bCH-Power                        DL-Power,
    iE-Extensions                    ProtocolExtensionContainer { { BCH-Information-Cell-
SetupRqstFDD-ExtIEs} }      OPTIONAL,
    ...
}

BCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```



```

-- =====
-- C
-- =====

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

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

CauseProtocol ::= ENUMERATED {
    transaction-not-allowed,
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    ...
}

CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-scramblingcode-already-in-use,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    rl-already-ActivatedOrAllocated,
    nodeB-Resources-unavailable,
    insufficient-physical-channel-resources,
    measurement-not-supported-for-the-object,
    macrodiversity-combining-not-possible,
    reconfiguration-not-allowed,
    requested-configuration-not-supported,
    synchronisation-failure,
    sIB-Origination-in-Node-B-not-Supported,
    unspecified,
    priority-transport-channel-established,
    no-closed-loop-timing-adjustment-mode-configured,
    ...
}

CauseTransport ::= ENUMERATED {
    transport-link-failure,
    transmission-port-not-available,
    transport-resource-unavailable,
    unspecified,
    ...
}

CCTrCH-ID ::= INTEGER (0..15)

CellParameterID ::= INTEGER (0..127)

CFN ::= INTEGER (0..255)

CFNOffset ::= INTEGER (0..255)

ChipOffset ::= INTEGER (0..38399)
-- Unit Chip

C-ID ::= INTEGER (0..65535)

Closedlooptimingadjustmentmode ::= ENUMERATED {
adj-l-slot,

```

adj-2-slot,

...  
}

```
CommonChannelsCapacityConsumptionLaw ::= SEQUENCE (SIZE(1..maxNrOfSF)) OF
  SEQUENCE {
    dl-Cost      INTEGER (0..65535),
    ul-Cost      INTEGER (0..65536)
  }
}
```

```
CommonMeasurementType ::= ENUMERATED {
  rssi,
  transmitted-carrier-power,
  acknowledged-ra-tries,
  time-slot-iscp,
  ...
}
```

```
CommonMeasurementValue ::= CHOICE {
  transmitted-carrier-power  Transmitted-Carrier-Power-Value,
  rssi                       RSSI-Value,
  acknowledged-ra-tries     Acknowledged-RA-Tries-Value,
  time-slot-iscp            TimeSlot-ISCP-Value,
  ...
}
```

```
CommonPhysicalChannelID ::= INTEGER (0..255)
```

```
CommonTransportChannelID ::= INTEGER (0..255)
```

```
CommunicationControlPortID ::= INTEGER (0..65535)
```

```
CompressedModeMethod ::= ENUMERATED {
  none,
  puncturing,
  half-SF,
  higher-Layer-Scheduling,
  ...
}
-- none = restore the normal mode
```

```
ConfigurationGenerationID ::= INTEGER (0..255)
-- Value '0' means "No configuration"
```

```
CriticalityDiagnostics ::= SEQUENCE {
  procedureCode          ProcedureCode          OPTIONAL,
  triggeringMessage      TriggeringMessage      OPTIONAL,
  criticalityResponse    Criticality            OPTIONAL,
  transactionID         TransactionID          OPTIONAL,
  iEsCriticalityResponses CriticalityDiagnostics-IE-List,
  iE-Extensions         ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} }
  OPTIONAL,
  ...
}
```

```
CriticalityDiagnostics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
  SEQUENCE {
    criticalityResponse Criticality,
    iE-ID               ProtocolIE-ID,
    repetitionNumber    RepetitionNumber      OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} }
  }
  OPTIONAL,
  ...
}
```

```
CriticalityDiagnostics-IE-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
CRNC-CommunicationContextID ::= INTEGER (0..10485)
```

```

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

id-AICH-InformationItem-AuditRsp                INTEGER ::= 0
id-AICH-InformationItem-ResourceStatusInd       INTEGER ::= 1
id-AICH-ParametersList-CTCH-ReconfRqstFDD     INTEGER ::= 2
id-AllRLItem-DM-Rprt                            INTEGER ::= 3
id-AllRLItem-DM-Rsp                             INTEGER ::= 4
id-AllRLItem-Set-DM-Rprt                       INTEGER ::= 5
id-AllRLItem-Set-DM-Rsp                       INTEGER ::= 6
id-BCH-InformationItem-AuditRsp                INTEGER ::= 7
id-BCH-InformationItem-ResourceStatusInd       INTEGER ::= 8
id-BCCH-ModificationTime                      INTEGER ::= 9
id-BlockingPriorityIndicator                   INTEGER ::= 10
id-Case1Item-Cell-SetupRqstTDD                 INTEGER ::= 11
id-Case2Item-Cell-SetupRqstTDD                 INTEGER ::= 12
id-Cause                                       INTEGER ::= 13
id-CCP-InformationItem-AuditRsp                INTEGER ::= 14
id-CCP-InformationList-AuditRsp               INTEGER ::= 15
id-CCP-InformationItem-ResourceStatusInd       INTEGER ::= 16
id-Cell-InformationItem-AuditRsp               INTEGER ::= 17
id-Cell-InformationItem-ResourceStatusInd       INTEGER ::= 18
id-Cell-InformationList-AuditRsp               INTEGER ::= 19
id-CellItem-CM-Rprt                           INTEGER ::= 20
id-CellItem-CM-Rqst                            INTEGER ::= 21
id-CellItem-CM-Rsp                             INTEGER ::= 22
id-CellParameterID                            INTEGER ::= 23
id-CFN                                         INTEGER ::= 24
id-C-ID                                        INTEGER ::= 25
id-Closed-Loop-Timing-Adjustment-Mode         INTEGER ::= xx
id-CombiningItem-RL-AdditionFailureFDD        INTEGER ::= 26
id-CombiningItem-RL-AdditionRspFDD            INTEGER ::= 27
id-CombiningItem-RL-AdditionRspTDD            INTEGER ::= 28
id-CombiningItem-RL-SetupFailureFDD           INTEGER ::= 29
id-CombiningItem-RL-SetupRspFDD               INTEGER ::= 30
id-CommonMeasurementObjectType-CM-Rprt         INTEGER ::= 31
id-CommonMeasurementObjectType-CM-Rqst         INTEGER ::= 32
id-CommonMeasurementObjectType-CM-Rsp         INTEGER ::= 33
id-CommonMeasurementType                       INTEGER ::= 34
id-CommonPhysicalChannelID                    INTEGER ::= 35
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD INTEGER ::= 36
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD INTEGER ::= 37
id-CommonTransportChannelType-CTCH-ReconfRqstTDD INTEGER ::= 38
id-CommonTransportChannelType-CTCH-SetupRsp   INTEGER ::= 39
id-CommunicationControlPortID                 INTEGER ::= 40
id-CM-PatternInformationItem-CompressedModePrep INTEGER ::= 41
id-CM-PatternInformationList-CompressedModePrep INTEGER ::= 42
id-ConfigurationGenerationID                  INTEGER ::= 43
id-CRNC-CommunicationContextID                 INTEGER ::= 44
.....

```

**CHANGE REQUEST**

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

**25.433 CR 089r3**

Current Version: **3.1.0**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **RAN#8**  
list expected approval meeting # here

for approval   
for information

strategic   
non-strategic  (for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:** (U)SIM  ME  UTRAN / Radio  Core Network   
(at least one should be marked with an X)

**Source:** R-WG3 **Date:** April 12, 2000

**Subject:** Sync Parameter configuration via NBAP

**Work item:**

**Category:** F Correction   
A Corresponds to a correction in an earlier release   
B Addition of feature   
C Functional modification of feature   
D Editorial modification   
(only one category shall be marked with an X)

**Release:** Phase 2   
Release 96   
Release 97   
Release 98   
Release 99   
Release 00

**Reason for change:** This documents provides the parameters for synchronisation handling to the Node B. As agreed in meeting RAN3#11, the parameters shall be defined in the CELL SETUP REQUEST message. By this CR it is proposed in addition to modify the parameters by the Cell Reconfiguration procedure in order to change the defined values without deleting the cell previously. Since in our view the reconfiguration of the parameters is not service affecting, the synchronisation parameters can be modified by the Cell Reconfiguration procedure. The behaviour of the Node B on ongoing values in case of changing the parameters is defined in the procedure description. The behaviour in case of RL sets is defined in the relevant procedures and the definition of the new IEs introduced is added. ASN.1 is included as well.

**Clauses affected:** 2, 8.2.13.2, 8.3.1, 8.3.6, 8.3.13.2, 9.1.23.1, 9.1.23.2, 9.1.26.1, 9.1.26.2, 9.3.3, 9.3.4, 9.3.7

**Other specs affected:** Other 3G core specifications  → List of CRs: R1-000372, R1-000365  
Other GSM core specifications  → List of CRs:  
MS test specifications  → List of CRs:  
BSS test specifications  → List of CRs:  
O&M specifications  → List of CRs:

**Other comments:**

---

## 2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

- References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.
- For a specific reference, subsequent revisions do not apply.
- For a non-specific reference, the latest version applies.

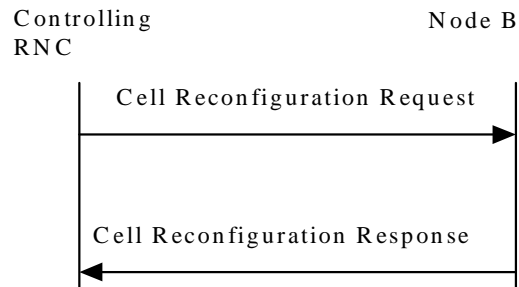
- [1] 3G TS 25.401: "UTRAN Overall Description".
- [2] 3G TS 25.426: "UTRAN  $I_{ur}$  and  $I_{ub}$  Interface Data Transport & Transport Signalling for DCH Data Streams".
- [3] CCITT Recommendation X.731 (01/92): "Information Technology – Open Systems Interconnection – Systems Management: State Management function".
- [4] 3G TS 25.215: "Physical layer – Measurements (FDD)".
- [5] 3G TS 25.225: "Physical layer – Measurements (TDD)".
- [6] 3G TS 25.430: "UTRAN Iub General Aspect and Principle".
- [7] 3G TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".
- [8] 3G TS 25.212: "Multiplexing and channel coding (FDD)".
- [9] 3G TS 25.213: "Spreading and modulation (FDD)".
- [10] 3G TS 25.214: "Physical layer procedures (FDD)".
- [11] X.691, (12/94) "Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER)".
- [12] X.680, (12/94) "Information Technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".
- [13] X.681, (12/94) "Information Technology - Abstract Syntax Notation One (ASN.1): Information object specification"
- [14] 3G TS 25.104: "UTRA (BS) FDD; Radio Transmission and Reception".
- [15] 3G TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception".
- [16] 3G TS 25.224: "Physical layer procedures (TDD)".

## 8.2.13 Cell Reconfiguration

### 8.2.13.1 General

This procedure is used to reconfigure a cell in Node B.

### 8.2.13.2 Successful Operation



**Figure 118: Cell Reconfiguration procedure: Successful Operation**

The procedure is initiated with a CELL RECONFIGURATION REQUEST message sent from CRNC to Node B. Upon Reception, the Node B shall reconfigure the cell according to the parameters given in the message.

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary SCH Information* IE group the Node B shall reconfigure Primary SCH power in the cell according to *Primary SCH Power* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Secondary SCH Information* IE group the Node B shall reconfigure Secondary SCH power in the cell according to the *Secondary SCH Power* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CPICH Information* IE group the Node B shall reconfigure Primary CPICH power in the cell according to the *Primary CPICH Power* IE value. Node B shall adjust all the transmitted power levels relative to the Primary CPICH power according to the new value]

[FDD - If the CELL RECONFIGURATION REQUEST message includes one or more *Secondary CPICH Information* IE groups the Node B shall reconfigure the power for each Secondary CPICH in the cell according to their *Secondary CPICH Power* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes the *SCH Information* IE group the Node B shall reconfigure SCH power in the cell according to the *SCH Power* IE value.]

[FDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CCPCH Information* IE group the Node B shall reconfigure BCH power in the cell according to the *BCH Power* IE value.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes the *Primary CCPCH Information* IE group the Node B shall reconfigure P-CCPCH power in the cell according to the *P-CCPCH Power* IE value. Node B shall adjust all the transmitted power levels relative to the Primary CPPCH power according to the new value.]

If the CELL RECONFIGURATION REQUEST message includes the *Maximum Transmission Power* IE the value shall be stored in the Node B and at any instance of time the total maximum output power in the cell shall not be above this value.

[TDD - If the CELL RECONFIGURATION REQUEST message includes the *Timeslot Information* IE group the Node B shall reconfigure switching-point structure in the cell according to the *Timeslot* IE value.]

When the cell is successfully reconfigured the Node B shall store the new *Configuration Generation ID* IE value and send a CELL RECONFIGURATION RESPONSE message as a response.

If the CELL RECONFIGURATION REQUEST message includes the *Synchronisation Configuration IE* group the Node B shall reconfigure the indicated parameters in the cell according to the IE value. The modified parameters shall

not impact the existing value of any ongoing timer or counter relating to the synchronisation status of a RL set. When the parameters in the *Synchronisation Configuration IE* group affect the thresholds applied to a RL set, the Node B shall immediately apply the new thresholds.

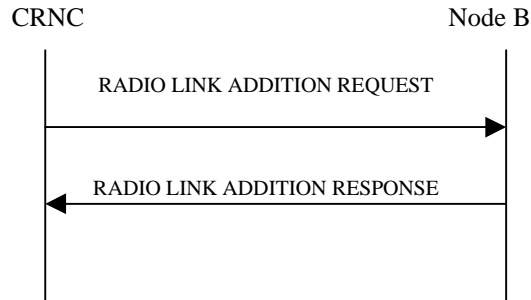
## 8.3.1 Radio Link Addition

### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the Node B for one or more additional RLs towards a UE when there is already a Node B communication context for this UE in the Node B.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

### 8.3.1.2 Successful Operation



**Figure: 28 Radio Link Addition procedure: Successful Operation**

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the CRNC to the Node B.

Upon reception, the Node B 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 *Diversity Control Field* IE indicates for each RL whether the Node B shall combine the new RL with existing RL(s) or not. If the *Diversity Control Field* IE indicates, "may be combined with already existing RLs", then Node B shall decide for any of the alternatives. When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.

If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL Channelisation Code of the RL when starting transmission. If no *Initial DL Transmission power* IE is included, the Node B shall use any transmission power level currently used on already existing RL's for this UE.

If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL power* IE, the Node B shall store this value and never transmit with a higher power on any DL Channelisation Code of the RL. If no *Maximum DL power* IE is included, any Maximum DL power stored for already existing RLs for this UE shall be applied.

If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL power* IE, the Node B shall store this value and never transmit with a lower power on any DL Channelisation Code of the RL. If no *Minimum DL power* IE is included, any Minimum DL power stored for already existing RLs for this UE shall be applied.

[FDD - If the RADIO LINK ADDITION REQUEST message contains an *SSDT Cell Identity* IE the Node B may activate SSDT for the concerned new RL, with the indicated cell identity used for that RL.]

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

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B 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 Node B Communication context.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the Node B 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 Node B Communication context.]



In the case of combining an RL with existing RL(s) the Node B shall indicate in the RADIO LINK ADDITION RESPONSE message with the Diversity Indication 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.

In the case of not combining an RL with existing RL(s), the Node B shall indicate in the RADIO LINK ADDITION RESPONSE message with the Diversity Indication that no combining is done. In this case the Node B shall include both the Transport Layer Address and the binding ID for the transport bearer to be established for each DCH of the RL in the RADIO LINK ADDITION RESPONSE message.

In case of coordinated DCH, the binding ID and the transport address shall be included for only one of the coordinated DCHs.

[FDD - Irrespective of SSdT activation, the Node B shall include in the RADIO LINK ADDITION RESPONSE message an indication concerning the capability to support SSdT on this RL. Only if the RADIO LINK ADDITION REQUEST message requested SSdT activation and the RADIO LINK ADDITION RESPONSE message indicates that the SSdT capability is supported for this RL, SSdT is activated in the Node B.]

After sending of the RADIO LINK ADDITION RESPONSE message the Node B shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The Node B shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in 25.427.

[FDD – When *Diversity Mode* IE is “STTD”, “Closedloop mode1”, or “Closedloop mode2”, the DRNC shall activate/deactivate the Transmit Diversity to each Radio Link in accordance with *Transmit Diversity Indication* IE]

[FDD – After addition of the new RL, the UL out-of-sync algorithm defined in [10] shall 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.

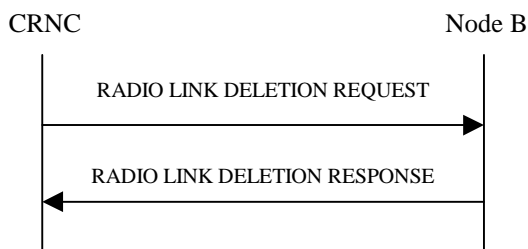
## 8.3.6 Radio Link Deletion

### 8.3.6.1 General

The Radio Link Deletion procedure is used to release the resources in a Node B for one or more established radio links towards a UE.

The Radio Link Deletion procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

### 8.3.6.2 Successful Operation



**Figure 36: Radio Link Deletion procedure: Successful Operation**

The procedure is initiated with a RADIO LINK DELETION REQUEST message sent from the CRNC to the Node B.

Upon receipt of this message, the Node B shall delete the radio link(s) identified in the message and release all associated resources and respond to the CRNC with a RADIO LINK DELETION RESPONSE message.

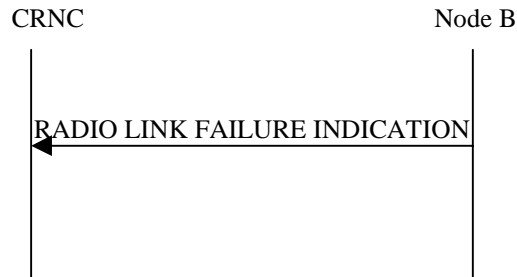
[FDD – After deletion of the RL, the UL out-of-sync algorithm defined in [10] shall use the maximum value of the parameters N\_OUTSYNC\_IND and T\_RLFAILURE, and the minimum value of the parameters N\_INSYNC\_IND, that are configured in the cells supporting the radio links of the RL Set].

## 8.3.12 Radio Link Failure

### 8.3.12.1 General

This procedure is used by Node B to indicate a failure in one or more Radio Links or Radio Link Sets.

### 8.3.12.2 Successful Operation



**Figure 43: Radio Link Failure procedure: Successful Operation**

When Node B detects that one or more Radio Link or Radio Link Sets is no longer available, it sends the RADIO LINK FAILURE INDICATION message to CRNC indicating the failed Radio Links or Radio Link Sets with the most appropriate cause values in the *Cause* IE. If the failure concerns one or more individual Radio Links the Node B shall indicate the affected Radio Link(s) using the *RL Information* IE group. [FDD - If the failure concerns one or more Radio Link Sets the Node B shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE group.]

When the Radio Link Failure procedure is used to notify the loss of UL synchronisation, the message shall be sent when indicated by the UL out-of-sync algorithm defined in [TS25.214] and [16TS25.224]. [FDD – The algorithm in [10] shall 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].

[TDD - When the Radio Link Failure procedure is used to notify the non-achievement or loss of UL synchronisation, the message is sent when the UL synchronisation of a newly established Radio Link is not achieved at RL Setup, or RL Addition, or it is lost during an active connection.]

Typical cause values are:

#### Radio Network Layer Causes:

- Synchronisation Failure

#### Miscellaneous Causes:

- Control Processing Overload
- HW Failure
- O&M Intervention

### 8.3.12.3 Abnormal Conditions

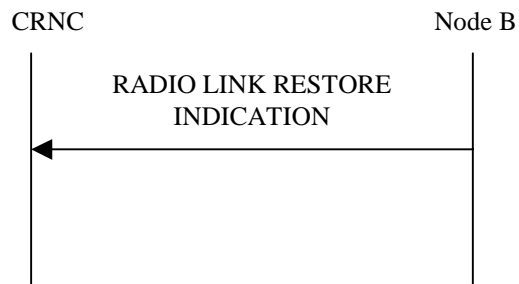
-

## 8.3.13 Radio Link Restoration

### 8.3.13.1 General

This procedure is used by the Node B to notify the achievement and re-achievement of uplink synchronisation of one or more Radio Links or Radio Link Sets.

### 8.3.13.2 Successful Operation



**Figure 44: Radio Link Restoration procedure: Successful Operation**

The Node B shall send the RADIO LINK RESTORE INDICATION message to the CRNC when indicated by the UL sync detection algorithm defined in [TS25.214] and [16TS25.224]. [FDD – The algorithm in [10] shall use the minimum value of the parameters N\_INSYNC\_IND that are configured in the cells supporting the radio links of the RL Set].

[TDD - If the re-established synchronisation concerns one or more individual Radio Links the Node B shall indicate the affected Radio Link(s) using the *RL Information* IE group.] [FDD - If the re-established synchronisation concerns one or more Radio Link Sets the Node B shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE group.]

### 8.3.13.3 Abnormal Condition

-

## 9.1.23 CELL SETUP REQUEST

### 9.1.23.1 FDD Message

IE/Group Name	Presence	Range	IE type and Reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M				–	
Message Type	M				YES	reject
Transaction ID	M				–	
Local Cell Id	M				YES	reject
C-Id	M				YES	reject
Configuration Generation Id	M				YES	reject
T Cell	M				YES	reject
UARFCN	M			Corresponds to Nu [TS25.104]	YES	reject
UARFCN	M			Corresponds to Nd [TS25.104]		

Maximum transmission power	M				YES	reject
Primary scrambling code	M				YES	reject
<b>Synchronisation Configuration</b>		1			YES	reject
>N INSYNC_IND	M				-	
>N OUTSYNC_IND	M				-	
>T RLFAILURE	M				-	
<b>Primary SCH Information</b>		1			YES	reject
>Common Physical Channel ID	M				-	
>Primary SCH Power	M		DL Power		-	
>TSTD Indicator	M				-	
<b>Secondary SCH Information</b>		1			YES	reject
>Common Physical Channel ID	M				-	
>Secondary SCH power	M		DL Power		-	
>TSTD Indicator	M				-	
<b>Primary CPICH Information</b>		1			YES	reject
>Common Physical Channel ID	M				-	
>Primary CPICH power	M				-	
>Transmit Diversity Indicator	M				-	
<b>Secondary CPICH Information</b>		0..<maxSC PICHCell>			YES	reject
>Common Physical Channel ID	M				-	
>DL Scrambling code	M				-	
>FDD DL Channelisation Code Number	M				-	
>Secondary CPICH Power	M		DL Power		-	
>Transmit Diversity Indicator	M				-	
<b>Primary CCPCH Information</b>		1			YES	reject
>Common Physical Channel ID	M				-	
<b>&gt;BCH Information</b>		1			-	
>>Common Transport Channel ID	M				-	
>>BCH Power	M		DL Power		-	
>STTD Indicator	M				-	

Range bound	Explanation
maxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.

### 9.1.23.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M				–	
Message Type	M				YES	reject
Transaction ID	M				–	
Local Cell Id	M				YES	reject
C-Id	M				YES	reject
Configuration Generation Id	M				YES	reject
UARFCN	M			Corresponds to Nt [TS25.105]	YES	reject
Cell Parameter ID	M				YES	reject
Maximum Transmission Power	M				YES	reject
Transmission Diversity Applied	M			On DCHs	YES	reject
Sync Case	M				YES	reject
<b>Synchronisation Configuration</b>		1			<u>YES</u>	<u>reject</u>
>N_INSYNC_IND	M				–	
>N_OUTSYNC_IND	M				–	
>T_RLFAILURE	M				–	
<b>SCH Information</b>		1			YES	reject
>Common physical channel ID	M				–	
>CHOICE Sync Case						
>>Case 1					YES	reject
>>>Time Slot	M				–	
>>Case 2					YES	reject
>>>SCH Time Slot	M				–	
>SCH Power	M		DL Power		–	
>TSTD Indicator	M				–	
<b>PCCPCH Information</b>		1			YES	reject
>Common physical channel ID	M				–	
					–	
>TDD Physical Channel Offset	M				–	
>Repetition Period	M				–	
>Repetition Length	M				–	
>PCCPCH Power	M				–	
>Block STTD Indicator	M				–	
<b>Time Slot Configuration</b>		1 .. 15			GLOBAL	reject
>Time Slot	M				–	
>Time Slot Status	M				–	
>Time Slot Direction	M				–	

## 9.1.26 CELL RECONFIGURATION REQUEST

### 9.1.26.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M				-	
Message Type	M				YES	reject
Transaction ID	M				-	
C-ID	M				YES	reject
Configuration Generation Id	M				YES	reject
Maximum transmission power	O				YES	reject
<b>Synchronisation Configuration</b>		0,1			YES	reject
>N INSYNC_IND	M				-	
>N OUTSYNC_IND	M				-	
>T RLFAILURE	M				-	
<b>Primary SCH Information</b>		0,1			YES	reject
>Common Physical Channel ID	M				-	
>Primary SCH power	M		DL Power		-	
<b>Secondary SCH Information</b>		0,1			YES	reject
>Common Physical Channel ID	M				-	
>Secondary SCH power	M		DL Power		-	
<b>Primary CPICH Information</b>		0,1			YES	reject
>Common Physical Channel ID	M				-	
>Primary CPICH power	M				-	
<b>Secondary CPICH Information</b>		0..<maxSC PICHCell>			YES	reject
>Common Physical Channel ID	M				-	
>Secondary CPICH Power	M		DL Power		-	
<b>Primary CCPCH Information</b>		0,1			YES	reject
> <b>BCH Information</b>		1			-	
>>Common Transport Channel ID	M				-	
>>BCH Power	M		DL Power		-	

Range bound	Explanation
maxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.



## 9.1.26.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M				–	
Message Type	M				YES	reject
Transaction ID	M				–	
C-Id	M				YES	reject
Configuration Generation ID	M				YES	reject
<b>Synchronisation Configuration</b>		0,1			YES	reject
>N <u>INSYNC IND</u>	M				–	
>N <u>OUTSYNC IND</u>	M				–	
>T <u>RLFFAILURE</u>	M				–	
<b>SCH Information</b>		0,1			YES	reject
>Common Physical Channel ID	M				–	
>SCH Power	M		DL Power		–	
<b>PCCPCH Information</b>		0,1			YES	reject
>Common Physical Channel ID	M				–	
>PCCPCH Power	M				–	
Maximum Transmission Power	O				YES	reject
<b>Time Slot Configuration</b>		1..15			GLOBAL	reject
>Time Slot	M				–	
>Time Slot Status	M				–	
>Time Slot Direction	M				–	

9.2.1.x N INSYNC IND

This parameter defines the number of successive in-sync indications after which the Node B shall trigger the Radio Link Restore procedure (see also [10] and [16]).

<u>Information Element/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
N INSYNC IND			Integer (1, 2, ..., 256)	

9.2.1.x N OUTSYNC IND

This parameter defines the number of consecutive out-of-sync indications after which the timer T\_RLFAILURE shall be started (see also [10] and [16]).

<u>Information Element/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
N OUTSYNC IND			Integer (1, 2, ..., 256)	

9.2.1.x T RLFAILURE

The Radio Link Failure procedure shall be triggered after a period of time T\_RLFAILURE has elapsed with a persisting out-of-sync indication (see also [10] and [16]).

<u>Information Element/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
T_RLFAILURE			ENUMERATED (0, 0.1, 0.2, ..., 25.5)	In seconds

### 9.3.3 NBAP PDU Content Definitions

```
-- *****
--
-- PDU definitions for NBAP.
--
-- *****

NBAP-PDU-Contents -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- *****
--
-- IE parameter types from other modules.
--
-- *****

IMPORTS
    AddorDeleteIndicator,
    AICH-TransmissionTiming,
    AvailabilityStatus,
    BCCH-ModificationTime,
    BindingID,
    BlockingPriorityIndicator,
    BlockSTTD-Indicator,
    BurstType,
    Cause,
    CCH-CH-ID,
    CellParameterID,
    CFN,
    CFNOffset,
    ChipOffset,
    C-ID,
    CommonChannelsCapacityConsumptionLaw,
    CommonMeasurementType,
    CommonMeasurementValue,
    CommonPhysicalChannelID,
    CommonTransportChannelID,
    CommunicationControlPortID,
    CompressedModeMethod,
    ConfigurationGenerationID,
    CriticalityDiagnostics,
    CRNC-CommunicationContextID,
    DCH-CombinationInd,
    DCH-ID,
    DedicatedMeasurementObjectType,
    DedicatedChannelsCapacityConsumptionLaw,
    DedicatedMeasurementType,
```

```
DedicatedMeasurementValue,  
D-FieldLength,  
DiversityControlField,  
DiversityMode,  
DL-DPCH-SlotFormat,  
DL-FrameType,  
DL-or-Global-CapacityCredit,  
DL-Power,  
DL-ScramblingCode,  
DPCH-ID,  
DSCH-ID,  
-- to do  
DSCH-TFS,  
FDD-DL-ChannelisationCodeNumber,  
FDD-S-CCPCH-Offset,  
FDD-TPC-DownlinkStepSize,  
FrameHandlingPriority,  
FrameOffset,  
GapPeriod,  
GapPositionMode,  
IB-SG-DATA,  
IB-SG-POS,  
IB-SG-REP,  
IB-Type,  
IndicationType,  
LimitedPowerIncrease,  
Local-Cell-ID,  
MaximumDL-PowerCapability,  
MaximumTransmissionPower,  
MaxNrOfUL-DPDCHs,  
MaxPRACH-MidambleShifts,  
MeasurementFilterCoefficient,  
MeasurementID,  
MidambleShift,  
MinSpreadingFactor,  
MinUL-ChannelisationCodeLength,  
MultiplexingPosition,  
N-INSYNC-IND,  
N-OUTSYNC-IND,  
NodeB-CommunicationContextID,  
PagingIndicatorLength,  
PayloadCRC-PresenceIndicator,  
PCCPCH-Power,  
PD,  
PDSCH-CodeMapping,  
PDSCHSet-ID,  
PDSCH-ID,  
PICH-Mode,  
PowerAdjustmentType,  
PowerControlMode,  
PowerOffset,
```

PowerResumeMode,  
PRACH-Midamble,  
PreambleSignatures,  
PreambleThreshold,  
PrimaryCPICH-Power,  
PrimaryScramblingCode,  
PropagationDelay,  
SCH-TimeSlot,  
PunctureLimit,  
PUSCHSet-ID,  
PUSCH-ID,  
QE-Selector,  
RACH-SlotFormat,  
RACH-SubChannelNumbers,  
RepetitionLength,  
RepetitionPeriod,  
ReportCharacteristics,  
ResourceOperationalState,  
RL-Set-ID,  
RL-ID,  
ScaledMaxAdjustmentPeriod,  
ScaledMaxAdjustmentStep,  
ScramblingCodeChange,  
ScramblingCodeWordNumber,  
SecondaryCCPCH-SlotFormat,  
S-FieldLength,  
SFN,  
ShutdownTimer,  
SIB-DeletionIndicator,  
SIB-Originator,  
SSDT-Cell-Identity,  
SSDT-CellID-Length,  
SSDT-Indication,  
STTD-Indicator,  
SSDT-SupportIndicator,  
SyncCase,  
T-Cell,  
T-RLFAILURE,  
TDD-ChannelisationCode,  
TDD-TPC-DownlinkStepSize,  
TDD-PhysicalChannelOffset,  
TFCI-Coding,  
TFCI-Presence,  
TFCI-SignallingMode,  
TFCS,  
TGD,  
TGL,  
TimeSlot,  
TimeSlotDirection,  
TimeSlotStatus,  
ToAWE,

```
ToAWS,
TransmissionDiversityApplied,
TransmitDiversityIndicator,
TransportFormatSet,
TransportLayerAddress,
TSTD-Indicator,
UARFCN,
UL-CapacityCredit,
UL-DL-CompressedModeSelection,
UL-DeltaSIR,
UL-DeltaSIR-after,
UL-DPCCH-SlotFormat,
UL-SIR,
UL-FP-Mode,
UL-InterferenceLevel,
UL-ScramblingCode,
USCH-ID
FROM NBAP-IEs

PrivateIE-Container{},
ProtocolExtensionContainer{},
ProtocolIE-Container{},
ProtocolIE-ContainerList{},
NBAP-PRIVATE-IES,
NBAP-PROTOCOL-IES,
NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers

id-AICH-InformationItem-AuditRsp,
id-AICH-InformationItem-ResourceStatusInd,
id-AICH-ParametersList-CTCH-ReconfRqstFDD,
id-AllRLItem-DM-Rprt,
id-AllRLItem-DM-Rsp,
id-AllRLItem-Set-DM-Rprt,
id-AllRLItem-Set-DM-Rsp,
id-BCH-InformationItem-AuditRsp,
id-BCH-InformationItem-ResourceStatusInd,
id-BCCH-ModificationTime,
id-BlockingPriorityIndicator,
id-Case1Item-Cell-SetupRqstTDD,
id-Case2Item-Cell-SetupRqstTDD,
id-Cause,
id-CCP-InformationItem-AuditRsp,
id-CCP-InformationList-AuditRsp,
id-CCP-InformationItem-ResourceStatusInd,
id-Cell-InformationItem-AuditRsp,
id-Cell-InformationItem-ResourceStatusInd,
id-Cell-InformationList-AuditRsp,
id-CellItem-CM-Rprt,
id-CellItem-CM-Rqst,
id-CellItem-CM-Rsp,
```

id-CellParameterID,  
id-CFN,  
id-C-ID,  
id-CombiningItem-RL-AdditionFailureFDD,  
id-CombiningItem-RL-AdditionRspFDD,  
id-CombiningItem-RL-AdditionRspTDD,  
id-CombiningItem-RL-SetupFailureFDD,  
id-CombiningItem-RL-SetupRspFDD,  
id-CommonMeasurementObjectType-CM-Rprt,  
id-CommonMeasurementObjectType-CM-Rqst,  
id-CommonMeasurementObjectType-CM-Rsp,  
id-CommonMeasurementType,  
id-CommonPhysicalChannelID,  
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD,  
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD,  
id-CommonTransportChannelType-CTCH-ReconfRqstTDD,  
id-CommonTransportChannelType-CTCH-SetupRsp,  
id-CommunicationControlPortID,  
id-CM-PatternInformationItem-CompressedModePrep,  
id-CM-PatternInformationList-CompressedModePrep,  
id-ConfigurationGenerationID,  
id-CRNC-CommunicationContextID,  
id-CriticalityDiagnostics,  
id-DCH-AddListIE-RL-ReconfReady,  
id-DCH-AddListIE-RL-ReconfRsp,  
id-DCH-AddList-RL-ReconfPrepFDD,  
id-DCH-AddList-RL-ReconfPrepTDD,  
id-DCH-AddList-RL-ReconfRqstFDD,  
id-DCH-AddList-RL-ReconfRqstTDD,  
id-DCH-DeleteList-RL-ReconfPrepFDD,  
id-DCH-DeleteList-RL-ReconfPrepTDD,  
id-DCH-DeleteList-RL-ReconfRqstFDD,  
id-DCH-DeleteList-RL-ReconfRqstTDD,  
id-DCH-InformationList-RL-SetupRqstFDD,  
id-DCH-InformationList-RL-SetupRqstTDD,  
id-DCH-InformationResponseItem-RL-SetupRspTDD,  
id-DCH-InformationResponseListIE-RL-SetupRspTDD,  
id-DCH-ModifyListIE-RL-ReconfReady,  
id-DCH-ModifyListIE-RL-ReconfRsp,  
id-DCH-ModifyList-RL-ReconfPrepFDD,  
id-DCH-ModifyList-RL-ReconfPrepTDD,  
id-DCH-ModifyList-RL-ReconfRqstFDD,  
id-DCH-ModifyList-RL-ReconfRqstTDD,  
id-DedicatedMeasurementObjectType,  
id-DedicatedMeasurementObjectType-DM-Rprt,  
id-DedicatedMeasurementObjectType-DM-Rqst,  
id-DedicatedMeasurementObjectType-DM-Rsp,  
id-DedicatedMeasurementType,  
id-DL-CCTrCH-InformationItem-RL-ReconfRqstTDD,  
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,  
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,

id-DL-CCTrCH-InformationList-RL-ReconfPrepTDD,  
id-DL-CCTrCH-InformationList-RL-ReconfRqstTDD,  
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,  
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD,  
id-DL-DPCH-InformationList-RL-AdditionRqstTDD,  
id-DL-DPCH-InformationList-RL-SetupRqstTDD,  
id-DL-DPCH-InformationListIE-RL-ReconfPrepTDD,  
id-DL-DPCH-Information-RL-ReconfPrepFDD,  
id-DL-DPCH-Information-RL-ReconfRqstFDD,  
id-DL-DPCH-Information-RL-SetupRqstFDD,  
id-DL-ReferencePowerInformationItem-DL-PC-Rqst,  
id-DLReferencePower,  
id-DLReferencePowerList-DL-PC-Rqst,  
id-DSCH-AddItem-RL-ReconfPrepFDD,  
id-DSCH-AddItem-RL-ReconfRqstFDD,  
id-DSCH-AddList-RL-ReconfPrepFDD,  
id-DSCH-AddList-RL-ReconfRqstFDD,  
id-DSCH-DeleteItem-RL-ReconfPrepFDD,  
id-DSCH-DeleteItem-RL-ReconfRqstFDD,  
id-DSCH-DeleteList-RL-ReconfPrepFDD,  
id-DSCH-DeleteList-RL-ReconfRqstFDD,  
id-DSCH-ID,  
id-DSCH-information-AddList-RL-ReconfPrepTDD,  
id-DSCH-Information-AddList-RL-ReconfRqstTDD,  
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD,  
id-DSCH-Information-DeleteList-RL-ReconfRqstTDD,  
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD,  
id-DSCH-Information-ModifyList-RL-ReconfRqstTDD,  
id-DSCH-InformationResponseListIE-RL-AdditionRspTDD,  
id-DSCH-InformationRespListIE-RL-SetupFailureFDD,  
id-DSCH-InformationResponseListIE-RL-SetupRspFDD,  
id-DSCH-InformationResponseListIE-RL-SetupRspTDD,  
id-DSCH-InformationList-RL-SetupRqstFDD,  
id-DSCH-InformationList-RL-SetupRqstTDD,  
id-DSCH-ModifyItem-RL-ReconfPrepFDD,  
id-DSCH-ModifyItem-RL-ReconfRqstFDD,  
id-DSCH-ModifyListIE-RL-ReconfReady,  
id-DSCH-ModifyListIE-RL-ReconfRsp,  
id-DSCH-ModifyList-RL-ReconfPrepFDD,  
id-DSCH-ModifyList-RL-ReconfRqstFDD,  
id-DSCH-SetupListIE-RL-ReconfReady,  
id-DSCH-SetupListIE-RL-ReconfRsp,  
id-FACH-InformationItem-AuditRsp,  
id-FACH-InformationItem-ResourceStatusInd,  
id-FACHItem-CTCH-SetupRsp,  
id-FACH-ParametersList-CTCH-ReconfRqstFDD,  
id-FACH-ParametersList-CTCH-ReconfRqstTDD,  
id-FACH-ParametersListIE-CTCH-SetupRqstFDD,  
id-FACH-ParametersListIE-CTCH-SetupRqstTDD,  
id-IndicationType-ResourceStatusInd,  
id-Local-Cell-ID,



id-Local-Cell-InformationItem-AuditRsp,  
id-Local-Cell-InformationItem-ResourceStatusInd,  
id-Local-Cell-InformationItem2-ResourceStatusInd,  
id-Local-Cell-InformationList-AuditRsp,  
id-MaxAdjustmentPeriod,  
id-MaxAdjustmentStep,  
id-MaximumTransmissionPower,  
id-MeasurementFilterCoefficient,  
id-MeasurementID,  
id-MIB-SIB-InformationList-SystemInfoUpdateRqst,  
id-NodeBInformation-AuditRep,  
id-No-DeletionItem-SystemInfoUpdate,  
id-No-FailureItem-ResourceStatusInd,  
id-Non-CombiningItem-RL-AdditionFailureFDD,  
id-Non-CombiningItem-RL-AdditionRspFDD,  
id-Non-CombiningItem-RL-AdditionRspTDD,  
id-NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD,  
id-NonCombiningOrIENotPrsentItem-RL-SetupRspFDD,  
id-NodeB-CommunicationContextID,  
id-P-CCPCH-InformationItem-AuditRsp,  
id-P-CCPCH-InformationItem-ResourceStatusInd,  
id-P-CPICH-InformationItem-AuditRsp,  
id-P-CPICH-InformationItem-ResourceStatusInd,  
id-P-SCH-InformationItem-AuditRsp,  
id-P-SCH-InformationItem-ResourceStatusInd,  
id-PCCPCH-Information-Cell-ReconfRqstTDD,  
id-PCCPCH-Information-Cell-SetupRqstTDD,  
id-PCH-InformationItem-ResourceStatusInd,  
id-PCHItem-CTCH-SetupRsp,  
id-PCH-Parameters-CTCH-ReconfRqstFDD,  
id-PCH-Parameters-CTCH-ReconfRqstTDD,  
id-PCH-ParametersItem-CTCH-SetupRqstFDD,  
id-PCH-ParametersItem-CTCH-SetupRqstTDD,  
id-PCH-InformationItem-AuditRsp,  
id-PICH-InformationItem-ResourceStatusInd,  
id-PD,  
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst,  
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst,  
id-PDSCHSets-AddList-PSCH-ReconfRqst,  
id-PDSCHSets-DeleteList-PSCH-ReconfRqst,  
id-PDSCHSets-ModifyList-PSCH-ReconfRqst,  
id-PICH-InformationItem-AuditRsp,  
id-PICH-Parameters-CTCH-ReconfRqstFDD,  
id-PICH-Parameters-CTCH-ReconfRqstTDD,  
id-PowerAdjustmentType,  
id-PRACH-InformationItem-AuditRsp,  
id-PRACH-InformationItem-ResourceStatusInd,  
id-PRACHItem-CTCH-SetupRqstFDD,  
id-PRACHItem-CTCH-SetupRqstTDD,  
id-PRACH-ParametersList-CTCH-ReconfRqstFDD,  
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD,

id-PrimaryCCPCH-Information-Cell-SetupRqstFDD,  
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD,  
id-PrimaryCPICH-Information-Cell-SetupRqstFDD,  
id-PrimarySCH-Information-Cell-ReconfRqstFDD,  
id-PrimarySCH-Information-Cell-SetupRqstFDD,  
id-PrimaryScramblingCode,  
id-ProcedureScopeType-DL-PC-Rqst,  
id-SCH-Information-Cell-ReconfRqstTDD,  
id-SCH-Information-Cell-SetupRqstTDD,  
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst,  
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst,  
id-PUSCHSets-AddList-PSCH-ReconfRqst,  
id-PUSCHSets-DeleteList-PSCH-ReconfRqst,  
id-PUSCHSets-ModifyList-PSCH-ReconfRqst,  
id-RACH-InformationItem-AuditRsp,  
id-RACH-InformationItem-ResourceStatusInd,  
id-RACHItem-CTCH-SetupRsp,  
id-RACHItem-CM-Rprt,  
id-RACHItem-CM-Rqst,  
id-RACHItem-CM-Rsp,  
id-RACH-ParametersItem-CTCH-SetupRqstFDD,  
id-RACH-ParameterItem-CTCH-SetupRqstTDD,  
id-ReportCharacteristics,  
id-Reporting-Object-RL-FailureInd,  
id-Reporting-Object-RL-RestoreInd,  
id-RL-ID,  
id-RL-InformationItem-DM-Rprt,  
id-RL-InformationItem-DM-Rqst,  
id-RL-InformationItem-DM-Rsp,  
id-RL-InformationItem-RL-AdditionRqstFDD,  
id-RL-informationItem-RL-DeletionRqst,  
id-RL-InformationItem-RL-FailureInd,  
id-RL-InformationItem-RL-ReconfPrepFDD,  
id-RL-InformationItem-RL-ReconfRqstFDD,  
id-RL-InformationItem-RL-RestoreInd,  
id-RL-InformationItem-RL-SetupRqstFDD,  
id-RL-InformationList-RL-AdditionRqstFDD,  
id-RL-informationList-RL-DeletionRqst,  
id-RL-InformationList-RL-ReconfPrepFDD,  
id-RL-InformationList-RL-ReconfRqstFDD,  
id-RL-InformationList-RL-SetupRqstFDD,  
id-RL-InformationResponseItem-RL-AdditionRspFDD,  
id-RL-InformationResponseItem-RL-ReconfReady,  
id-RL-InformationResponseItem-RL-ReconfRsp,  
id-RL-InformationResponseItem-RL-SetupRspFDD,  
id-RL-InformationResponseList-RL-AdditionRspFDD,  
id-RL-InformationResponseList-RL-ReconfReady,  
id-RL-InformationResponseList-RL-ReconfRsp,  
id-RL-InformationResponseList-RL-SetupRspFDD,  
id-RL-InformationResponse-RL-AdditionRspTDD,  
id-RL-InformationResponse-RL-SetupRspTDD,

id-RL-Information-RL-AdditionRqstTDD,  
id-RL-Information-RL-ReconfRqstTDD,  
id-RL-Information-RL-ReconfPrepTDD,  
id-RL-Information-RL-SetupRqstTDD,  
id-RLItem-DM-Rprt,  
id-RLItem-DM-Rqst,  
id-RLItem-DM-Rsp,  
id-RLItem-RL-FailureInd,  
id-RLItem-RL-RestoreInd,  
id-RL-ReconfigurationFailureItem-RL-ReconfFailure,  
id-RL-ReconfigurationFailureList-RL-ReconfFailure,  
id-RL-Set-InformationItem-DM-Rprt,  
id-RL-SetItem-DM-Rqst,  
id-RL-Set-InformationItem-DM-Rsp,  
id-RL-Set-InformationItem-RL-FailureInd,  
id-RL-Set-InformationItem-RL-RestoreInd,  
id-RL-SetItem-DM-Rprt,  
id-RL-SetItem-DM-Rsp,  
id-RL-SetItem-RL-FailureInd,  
id-RL-SetItem-RL-RestoreInd,  
id-S-CCPCH-InformationItem-AuditRsp,  
id-S-CCPCH-InformationItem-ResourceStatusInd,  
id-S-CPICH-InformationItem-AuditRsp,  
id-S-CPICH-InformationItem-ResourceStatusInd,  
id-SCH-InformationItem-AuditRsp,  
id-SCH-InformationItem-ResourceStatusInd,  
id-S-SCH-InformationItem-AuditRsp,  
id-S-SCH-InformationItem-ResourceStatusInd,  
id-Secondary-CCPCHItem-CTCH-SetupRqstFDD,  
id-Secondary-CCPCHItem-CTCH-SetupRqstTDD,  
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD,  
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD,  
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD,  
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD,  
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD,  
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD,  
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD,  
id-SecondarySCH-Information-Cell-ReconfRqstFDD,  
id-SecondarySCH-Information-Cell-SetupRqstFDD,  
id-SegmentInformationListIE-SystemInfoUpdate,  
id-ServiceImpactingItem-ResourceStatusInd,  
id-SFN,  
id-ShutdownTimer,  
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD,  
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD,  
id-Successful-RL-InformationRespList-RL-AdditionFailureFDD,  
id-Successful-RL-InformationRespList-RL-SetupFailureFDD,  
id-Synchronisation-Configuration-Cell-ReconfRqst,  
id-Synchronisation-Configuration-Cell-SetupRqst,  
id-SyncCase,  
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH,

id-T-Cell,  
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD,  
id-TimeSlotConfigurationList-Cell-SetupRqstTDD,  
id-TransmissionDiversityApplied,  
id-UARFCNforNt,  
id-UARFCNforNd,  
id-UARFCNforNu,  
id-UL-CCTrCH-InformationItem-RL-ReconfRqstTDD,  
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,  
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,  
id-UL-CCTrCH-InformationList-RL-ReconfPrepTDD,  
id-UL-CCTrCH-InformationList-RL-ReconfRqstTDD,  
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,  
id-UL-DPCH-InformationItem-RL-AdditionRqstTDD,  
id-UL-DPCH-InformationList-RL-AdditionRqstTDD,  
id-UL-DPCH-InformationList-RL-SetupRqstTDD,  
id-UL-DPCH-InformationListIE-RL-ReconfPrepTDD,  
id-UL-DPCH-Information-RL-ReconfPrepFDD,  
id-UL-DPCH-Information-RL-ReconfRqstFDD,  
id-UL-DPCH-Information-RL-SetupRqstFDD,  
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD,  
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD,  
id-Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD,  
id-Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD,  
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD,  
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD,  
id-USCH-information-AddList-RL-ReconfPrepTDD,  
id-USCH-Information-AddList-RL-ReconfRqstTDD,  
id-USCH-Information-DeleteList-RL-ReconfPrepTDD,  
id-USCH-Information-DeleteList-RL-ReconfRqstTDD,  
id-USCH-Information-ModifyList-RL-ReconfPrepTDD,  
id-USCH-Information-ModifyList-RL-ReconfRqstTDD,  
id-USCH-InformationResponseListIE-RL-AdditionRspTDD,  
id-USCH-InformationResponseListIE-RL-SetupRspTDD,  
id-USCH-InformationList-RL-SetupRqstTDD,  
id-USCH-ModifyListIE-RL-ReconfReady,  
id-USCH-ModifyListIE-RL-ReconfRsp,  
id-USCH-SetupListIE-RL-ReconfReady,  
id-USCH-SetupListIE-RL-ReconfRsp,

maxNrOfCCTrCHs,  
maxNrOfCodes,  
maxNrOfCMPatterns,  
maxNrOfDCHs,  
maxNrOfDLCodes,  
maxNrOfDPCHs,  
maxNrOfDSCHs,  
maxNrOfFACHs,  
maxNrOfRLs,  
maxNrOfRLSets,  
maxNrOfPRACHs,



{ ID id-MaximumTransmissionPower PRESENCE mandatory }	CRITICALITY	reject	TYPE	MaximumTransmissionPower
{ ID id-PrimaryScramblingCode PRESENCE mandatory }	CRITICALITY	reject	TYPE	PrimaryScramblingCode
{ ID id-Synchronisation-Configuration-Cell-SetupRqst PRESENCE mandatory }	CRITICALITY	reject	TYPE	Synchronisation-Configuration-Cell-SetupRqst
{ ID id-PrimarySCH-Information-Cell-SetupRqstFDD PRESENCE mandatory }	CRITICALITY	reject	TYPE	PrimarySCH-Information-Cell-SetupRqstFDD
{ ID id-SecondarySCH-Information-Cell-SetupRqstFDD PRESENCE mandatory }	CRITICALITY	reject	TYPE	SecondarySCH-Information-Cell-SetupRqstFDD
{ ID id-PrimaryCPICH-Information-Cell-SetupRqstFDD PRESENCE mandatory }	CRITICALITY	reject	TYPE	PrimaryCPICH-Information-Cell-SetupRqstFDD
{ ID id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD PRESENCE optional }	CRITICALITY	reject	TYPE	SecondaryCPICH-InformationList-Cell-SetupRqstFDD
{ ID id-PrimaryCCPCH-Information-Cell-SetupRqstFDD PRESENCE mandatory }, ...	CRITICALITY	reject	TYPE	PrimaryCCPCH-Information-Cell-SetupRqstFDD

}  
 CellSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {  
 ...  
 }  
Synchronisation-Configuration-Cell-SetupRqst ::= SEQUENCE {  
n-INSYNC-IND N-INSYNC-IND,  
n-OUTSYNC-IND N-OUTSYNC-IND,  
t-RLFAILURE T-RLFAILURE,  
iE-Extensions ProtocolExtensionContainer { { Synchronisation-Configuration-Cell-SetupRqst-ExtIEs } } OPTIONAL,  
 ...  
 }  
Synchronisation-Configuration-Cell-SetupRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {  
 ...  
 }  
 PrimarySCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {  
 commonPhysicalChannelID CommonPhysicalChannelID,  
 primarySCH-Power DL-Power,  
 tSTD-Indicator TSTD-Indicator,  
 iE-Extensions ProtocolExtensionContainer { { PrimarySCH-Information-Cell-SetupRqstFDD-ExtIEs } } OPTIONAL,  
 ...  
 }  
 PrimarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {  
 ...  
 }  
 SecondarySCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {  
 commonPhysicalChannelID CommonPhysicalChannelID,  
 secondarySCH-Power DL-Power,  
 tSTD-Indicator TSTD-Indicator,  
 ...  
 }

```

    iE-Extensions          ProtocolExtensionContainer { { SecondarySCH-Information-Cell-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

SecondarySCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCPICH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    primaryCPICH-Power           PrimaryCPICH-Power,
    transmitDiversityIndicator   TransmitDiversityIndicator,
    iE-Extensions               ProtocolExtensionContainer { { PrimaryCPICH-Information-Cell-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

PrimaryCPICH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondaryCPICH-InformationList-Cell-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Container{{ SecondaryCPICH-InformationItemIE-Cell-SetupRqstFDD }}

SecondaryCPICH-InformationItemIE-Cell-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD      CRITICALITY      reject      TYPE      SecondaryCPICH-InformationItem-Cell-SetupRqstFDD
      PRESENCE      mandatory},
    ...
}

SecondaryCPICH-InformationItem-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    dl-ScramblingCode           DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
    secondaryCPICH-Power        DL-Power,
    transmitDiversityIndicator   TransmitDiversityIndicator,
    iE-Extensions               ProtocolExtensionContainer { { SecondaryCPICH-InformationItem-Cell-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

SecondaryCPICH-InformationItem-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    bCH-information              BCH-Information-Cell-SetupRqstFDD,
    sTTD-Indicator               STTD-Indicator,
    iE-Extensions               ProtocolExtensionContainer { { PrimaryCCPCH-Information-Cell-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

```

```
PrimaryCCPCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
  ...
}
```

```
BCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
  commonTransportChannelID      CommonTransportChannelID,
  bCH-Power                     DL-Power,
  iE-Extensions                 ProtocolExtensionContainer { { BCH-Information-Cell-SetupRqstFDD-ExtIEs } } OPTIONAL,
  ...
}
```

```
BCH-Information-Cell-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
  ...
}
```

```
-- *****
--
-- CELL SETUP REQUEST TDD
--
-- *****
```

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

```
CellSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
```

{ ID id-Local-Cell-ID	CRITICALITY	reject	TYPE Local-Cell-ID	PRESENCE
mandatory }				
{ ID id-C-ID	CRITICALITY	reject	TYPE C-ID	PRESENCE
mandatory }				
{ ID id-ConfigurationGenerationID	CRITICALITY	reject	TYPE ConfigurationGenerationID	PRESENCE
mandatory }				
{ ID id-UARFCNforNt	CRITICALITY	reject	TYPE UARFCN	PRESENCE
mandatory }				
{ ID id-CellParameterID	CRITICALITY	reject	TYPE CellParameterID	PRESENCE
mandatory }				
{ ID id-MaximumTransmissionPower	CRITICALITY	reject	TYPE MaximumTransmissionPower	PRESENCE
mandatory }				
{ ID id-TransmissionDiversityApplied	CRITICALITY	reject	TYPE TransmissionDiversityApplied	PRESENCE
mandatory }				
{ ID id-SyncCase	CRITICALITY	reject	TYPE SyncCase	PRESENCE
mandatory }				
{ ID id-Synchronisation-Configuration-Cell-SetupRqst	CRITICALITY	reject	TYPE Synchronisation-Configuration-Cell-SetupRqst	
PRESENCE mandatory }				
{ ID id-SCH-Information-Cell-SetupRqstTDD	CRITICALITY	reject	TYPE SCH-Information-Cell-SetupRqstTDD	PRESENCE
mandatory }				
{ ID id-PCCPCH-Information-Cell-SetupRqstTDD	CRITICALITY	reject	TYPE PCCPCH-Information-Cell-SetupRqstTDD	
PRESENCE mandatory }				



```

    { ID id-TimeSlotConfigurationList-Cell-SetupRqstTDD      CRITICALITY reject      TYPE TimeSlotConfigurationList-Cell-SetupRqstTDD
      PRESENCE mandatory },
    ...
  }

CellSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

SCH-Information-Cell-SetupRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  syncCaseIndicator            SyncCaseIndicator-Cell-SetupRqstTDD-PSCH,
  sCH-Power                    DL-Power,
  tSTD-Indicator                TSTD-Indicator,
  iE-Extensions                ProtocolExtensionContainer { { SCH-Information-Cell-SetupRqstTDD-ExtIEs } } OPTIONAL,
  ...
}

SCH-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

SyncCaseIndicator-Cell-SetupRqstTDD-PSCH ::= ProtocolIE-Container {{ SyncCaseIndicatorIE-Cell-SetupRqstTDD-PSCH }}

SyncCaseIndicatorIE-Cell-SetupRqstTDD-PSCH NBAP-PROTOCOL-IES ::= {
  { ID id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH      CRITICALITY reject      TYPE SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH      PRESENCE mandatory
  },
  ...
}

SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH ::= CHOICE {
  case1                      Case1-Cell-SetupRqstTDD,
  case2                      Case2-Cell-SetupRqstTDD,
  ...
}

Case1-Cell-SetupRqstTDD ::= ProtocolIE-Container {{ Case1IE-Cell-SetupRqstTDD }}

Case1IE-Cell-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-Case1Item-Cell-SetupRqstTDD      CRITICALITY reject      TYPE Case1Item-Cell-SetupRqstTDD      PRESENCE mandatory },
  ...
}

Case1Item-Cell-SetupRqstTDD ::= SEQUENCE {
  timeSlot                    TimeSlot,
  iE-Extensions                ProtocolExtensionContainer { { Case1Item-Cell-SetupRqstTDD-ExtIEs } } OPTIONAL,
  ...
}

Case1Item-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
}
Case2-Cell-SetupRqstTDD ::= ProtocolIE-Container {{ Case2IE-Cell-SetupRqstTDD }}

Case2IE-Cell-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-Case2Item-Cell-SetupRqstTDD  CRITICALITY reject    TYPE Case2Item-Cell-SetupRqstTDD  PRESENCE mandatory },
  ...
}

Case2Item-Cell-SetupRqstTDD ::= SEQUENCE {
  sCH-TimeSlot          SCH-TimeSlot,
  iE-Extensions        ProtocolExtensionContainer { { Case2Item-Cell-SetupRqstTDD-ExtIEs } }  OPTIONAL,
  ...
}

Case2Item-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PCCPCH-Information-Cell-SetupRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  tdd-PhysicalChannelOffset    TDD-PhysicalChannelOffset,
  repetitionPeriod             RepetitionPeriod,
  repetitionLength             RepetitionLength,
  pCCPCH-Power                 PCCPCH-Power,
  blockSTTD-Indicator          BlockSTTD-Indicator,
  iE-Extensions                ProtocolExtensionContainer { { PCCPCH-Information-Cell-SetupRqstTDD-ExtIEs } }  OPTIONAL,
  ...
}

PCCPCH-Information-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

TimeSlotConfigurationList-Cell-SetupRqstTDD ::= SEQUENCE (SIZE (1..15)) OF TimeSlotConfigurationItem-Cell-SetupRqstTDD

TimeSlotConfigurationItem-Cell-SetupRqstTDD ::= SEQUENCE {
  timeSlot                  TimeSlot,
  timeSlotStatus            TimeSlotStatus,
  timeSlotDirection        TimeSlotDirection,
  iE-Extensions            ProtocolExtensionContainer { { TimeSlotConfigurationItem-Cell-SetupRqstTDD-ExtIEs } }  OPTIONAL,
  ...
}

TimeSlotConfigurationItem-Cell-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****

```

```

--
-- CELL SETUP RESPONSE
--
-- *****

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

CellSetupResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-CriticalityDiagnostics          CRITICALITY      ignore          TYPE      CriticalityDiagnostics      PRESENCE optional},
    ...
}

CellSetupResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL SETUP FAILURE
--
-- *****

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

CellSetupFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-Cause                          CRITICALITY      ignore          TYPE      Cause                          PRESENCE mandatory }|
    { ID      id-CriticalityDiagnostics          CRITICALITY      ignore          TYPE      CriticalityDiagnostics          PRESENCE optional },
    ...
}

CellSetupFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL RECONFIGURATION REQUEST FDD
--
-- *****

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

```

```

}
...
}

CellReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-C-ID                                CRITICALITY reject          TYPE C-ID                PRESENCE
    mandatory }|
  { ID id-ConfigurationGenerationID          CRITICALITY reject          TYPE ConfigurationGenerationID
    PRESENCE mandatory }|
  { ID id-MaximumTransmissionPower          CRITICALITY reject          TYPE MaximumTransmissionPower
    PRESENCE optional }|
  { ID id-Synchronisation-Configuration-Cell-ReconfRqst
    CRITICALITY reject          TYPE Synchronisation-Configuration-Cell-ReconfRqst
    PRESENCE optional }|
  { ID id-PrimarySCH-Information-Cell-ReconfRqstFDD
    CRITICALITY reject          TYPE PrimarySCH-Information-Cell-ReconfRqstFDD
    PRESENCE optional }|
  { ID id-SecondarySCH-Information-Cell-ReconfRqstFDD
    CRITICALITY reject          TYPE SecondarySCH-Information-Cell-ReconfRqstFDD
    PRESENCE optional }|
  { ID id-PrimaryCPICH-Information-Cell-ReconfRqstFDD
    CRITICALITY reject          TYPE PrimaryCPICH-Information-Cell-ReconfRqstFDD
    PRESENCE optional }|
  { ID id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD
    CRITICALITY reject          TYPE SecondaryCPICH-InformationList-Cell-ReconfRqstFDD
    PRESENCE optional }|
  { ID id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD
    CRITICALITY reject          TYPE PrimaryCCPCH-Information-Cell-ReconfRqstFDD
    PRESENCE optional },
  ...
}

CellReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Synchronisation-Configuration-Cell-ReconfRqst ::= SEQUENCE {
  n-INSYNC-IND          N-INSYNC-IND          OPTIONAL,
  n-OUTSYNC-IND         N-OUTSYNC-IND         OPTIONAL,
  t-RLFFAILURE          T-RLFFAILURE          OPTIONAL,
  iE-Extensions        ProtocolExtensionContainer { { Synchronisation-Configuration-Cell-ReconfRqst-ExtIEs } } OPTIONAL,
  ...
}

Synchronisation-Configuration-Cell-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PrimarySCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  primarySCH-Power             DL-Power,
  iE-Extensions                ProtocolExtensionContainer { { PrimarySCH-Information-Cell-ReconfRqstFDD-ExtIEs } } OPTIONAL,
  ...
}

PrimarySCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

SecondarySCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    secondarySCH-Power           DL-Power,
    iE-Extensions                ProtocolExtensionContainer { { SecondarySCH-Information-Cell-ReconfRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

SecondarySCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCPICH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    primaryCPICH-Power           PrimaryCPICH-Power,
    iE-Extensions                ProtocolExtensionContainer { { PrimaryCPICH-Information-Cell-ReconfRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

PrimaryCPICH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SecondaryCPICH-InformationList-Cell-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Container{{ SecondaryCPICH-InformationItemIE-Cell-ReconfRqstFDD }}

SecondaryCPICH-InformationItemIE-Cell-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD      CRITICALITY    reject      TYPE      SecondaryCPICH-InformationItem-Cell-
    ReconfRqstFDD      PRESENCE      mandatory},
    ...
}

SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    secondaryCPICH-Power         DL-Power,
    iE-Extensions                ProtocolExtensionContainer { { SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PrimaryCCPCH-Information-Cell-ReconfRqstFDD ::= SEQUENCE {
    bCH-information              BCH-information-Cell-ReconfRqstFDD,
    iE-Extensions                ProtocolExtensionContainer { { PrimaryCCPCH-Information-Cell-ReconfRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

PrimaryCCPCH-Information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

BCH-information-Cell-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    bCH-Power                     DL-Power,
    iE-Extensions                 ProtocolExtensionContainer { { BCH-information-Cell-ReconfRqstFDD-ExtIEs } }    OPTIONAL,
    ...
}

BCH-information-Cell-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- CELL RECONFIGURATION REQUEST TDD
--
-- *****

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

CellReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-C-ID              CRITICALITY  reject      TYPE  C-ID              PRESENCE  mandatory }
    }|
    { ID      id-ConfigurationGenerationID  CRITICALITY  reject      TYPE  ConfigurationGenerationID  PRESENCE }
    mandatory }|
    { ID      id-Synchronisation-Configuration-Cell-ReconfRqst  CRITICALITY  reject      TYPE  Synchronisation-Configuration-Cell-ReconfRqst
    PRESENCE  optional }|
    { ID      id-SCH-Information-Cell-ReconfRqstTDD  CRITICALITY  reject      TYPE  SCH-Information-Cell-ReconfRqstTDD  PRESENCE
    optional }|
    { ID      id-PCCPCH-Information-Cell-ReconfRqstTDD  CRITICALITY  reject      TYPE  PCCPCH-Information-Cell-ReconfRqstTDD  PRESENCE
    optional }|
    { ID      id-MaximumTransmissionPower  CRITICALITY  reject      TYPE  MaximumTransmissionPower  PRESENCE
    optional }|
    { ID      id-TimeSlotConfigurationList-Cell-ReconfRqstTDD  CRITICALITY  reject      TYPE  TimeSlotConfigurationList-Cell-ReconfRqstTDD
    PRESENCE  mandatory },
    ...
}

CellReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SCH-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    sCH-Power                     DL-Power,
    iE-Extensions                 ProtocolExtensionContainer { { PSCH-Information-Cell-ReconfRqstTDD-ExtIEs } }    OPTIONAL,

```

```
} ...
}
PSCH-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
PCCPCH-Information-Cell-ReconfRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID          CommonPhysicalChannelID,
  pCCPCH-Power                     DL-Power,
  iE-Extensions                    ProtocolExtensionContainer { { PCCPCH-Information-Cell-ReconfRqstTDD-ExtIEs} } OPTIONAL,
  ...
}
PCCPCH-Information-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
TimeSlotConfigurationList-Cell-ReconfRqstTDD ::= SEQUENCE (SIZE (1..15)) OF TimeSlotConfigurationItem-Cell-ReconfRqstTDD
TimeSlotConfigurationItem-Cell-ReconfRqstTDD ::= SEQUENCE {
  timeSlot                          TimeSlot,
  timeSlotStatus                    TimeSlotStatus,
  timeSlotDirection                 TimeSlotDirection,
  iE-Extensions                    ProtocolExtensionContainer { { TimeSlotConfigurationItem-Cell-ReconfRqstTDD-ExtIEs} } OPTIONAL,
  ...
}
TimeSlotConfigurationItem-Cell-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
}
```

- 
- partly omitted
-

## 9.3.4 NBAP Information Elements

```

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

NBAP-IEs
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN

IMPORTS
    maxNrOfTFCS,
    maxNrOfErrors,
    maxCTFC-1,
    maxNrOfTFs,
    maxTTI-count,
    maxRateMatching,
    maxCodeNrComp-1,
    maxNrOfCodeGroups,
    maxNrOfTFCIGroups,
    maxNrOfTFCI1Combs,
    maxNrOfTFCI2Combs,
    maxCTFC-DCH-1,
    maxCTFC-DSCH-1,
    maxNrOfSF
FROM NBAP-Constants

    Criticality,
    ProcedureCode,
    ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM NBAP-CommonDataTypes

    ProtocolExtensionContainer{},
    NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers;

-- =====
-- A
-- =====

Acknowledged-RA-Tries-Value ::= INTEGER(0..240,...)
-- The number of L1 acknowledged random access tries per every 20 ms period.

AddorDeleteIndicator ::= ENUMERATED {
    add,
    delete,

```



```
    ...
}

AICH-TransmissionTiming ::= ENUMERATED {
    v0,
    v1,
    ...
}

AvailabilityStatus ::= ENUMERATED {
    empty,
    in-test,
    failed,
    power-off,
    off-line,
    off-duty,
    dependency,
    degraded,
    not-installed,
    log-full,
    ...
}

-- =====
-- B
-- =====

BCCH-ModificationTime ::= INTEGER (0..2047)
-- Time = BCCH-ModificationTime * 2
-- Range 0 to 4094, step 2
-- All even SFN values are allowed

BindingID ::= OCTET STRING (SIZE (1..4, ...))

BetaCD ::= INTEGER (0..15)

BlockingPriorityIndicator ::= ENUMERATED {
    high,
    normal,
    low,
    ...
}
-- High priority: Block resource immediately.
-- Normal priority: Block resource when idle or upon timer expiry.
-- Low priority: Block resource when idle.

BlockSTTD-Indicator ::= ENUMERATED {
    active,
    inactive
}
```

```
BurstType ::= ENUMERATED {
    type1 (1),
    type2 (2),
    ...
}

-- =====
-- C
-- =====

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

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

CauseProtocol ::= ENUMERATED {
    transaction-not-allowed,
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    ...
}

CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-scramblingcode-already-in-use,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    rl-already-ActivatedOrAlocated,
    nodeB-Resources-unavailable,
    insufficient-physical-channel-resources,
    measurement-not-supported-for-the-object,
    macrodiversity-combining-not-possible,
    reconfiguration-not-allowed,
}
```

```
    requested-configuration-not-supported,
    synchronisation-failure,
    sIB-Origination-in-Node-B-not-Supported,
    unspecified,
    priority-transport-channel-established,
    ...
}

CauseTransport ::= ENUMERATED {
    transport-link-failure,
    transmission-port-not-available,
    transport-resource-unavailable,
    unspecified,
    ...
}

CCTrCH-ID ::= INTEGER (0..15)

CellParameterID ::= INTEGER (0..127)

CFN ::= INTEGER (0..255)

CFNOffset ::= INTEGER (0..255)

ChipOffset ::= INTEGER (0..38399)
-- Unit Chip

C-ID ::= INTEGER (0..65535)

CommonChannelsCapacityConsumptionLaw ::= SEQUENCE (SIZE(1..maxNrOfSF)) OF
    SEQUENCE {
        dl-Cost      INTEGER (0..65535),
        ul-Cost      INTEGER (0..65536)
    }
}

CommonMeasurementType ::= ENUMERATED {
    rssi,
    transmitted-carrier-power,
    acknowledged-ra-tries,
    time-slot-iscp,
    ...
}

CommonMeasurementValue ::= CHOICE {
    transmitted-carrier-power    Transmitted-Carrier-Power-Value,
    rssi                          RSSI-Value,
    acknowledged-ra-tries        Acknowledged-RA-Tries-Value,
    time-slot-iscp                TimeSlot-ISCP-Value,
    ...
}
```

```

CommonPhysicalChannelID ::= INTEGER (0..255)

CommonTransportChannelID ::= INTEGER (0..255)

CommunicationControlPortID ::= INTEGER (0..65535)

CompressedModeMethod ::= ENUMERATED {
    none,
    puncturing,
    half-SF,
    higher-Layer-Scheduling,
    ...
}
-- none = restore the normal mode

ConfigurationGenerationID ::= INTEGER (0..255)
-- Value '0' means "No configuration"

CriticalityDiagnostics ::= SEQUENCE {
    procedureCode          ProcedureCode          OPTIONAL,
    triggeringMessage      TriggeringMessage      OPTIONAL,
    criticalityResponse    Criticality             OPTIONAL,
    transactionID          TransactionID          OPTIONAL,
    iEsCriticalityResponses CriticalityDiagnostics-IE-List,
    iE-Extensions          ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
    ...
}

CriticalityDiagnostics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
SEQUENCE {
    criticalityResponse Criticality,
    iE-ID                ProtocolIE-ID,
    repetitionNumber     RepetitionNumber          OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,
    ...
}

CriticalityDiagnostics-IE-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CRNC-CommunicationContextID ::= INTEGER (0..1048575)

-- =====
-- D
-- =====

```

DCH-CombinationInd ::= INTEGER (0..255)

DCH-ID ::= INTEGER (0..255)

DedicatedChannelsCapacityConsumptionLaw ::= SEQUENCE ( SIZE(1..maxNrOfSF) ) OF  
SEQUENCE {  
    dl-Cost         INTEGER (0..65535),  
    ul-Cost         INTEGER (0..65536)  
}

DedicatedMeasurementObjectType ::= ENUMERATED {  
    rl,  
    rls,  
    all-rl,  
    all-rls,  
    ...  
}

DedicatedMeasurementType ::= ENUMERATED {  
    sir,  
    sir-error,  
    transmitted-code-power,  
    rscp,  
    ...  
}

DedicatedMeasurementValue ::= CHOICE {  
    sIR-Value                     SIR-Value,  
    sIR-ErrorValue               SIR-Error-Value,  
    transmittedCodePowerValue   Transmitted-Code-Power-Value,  
    rSCP                          RSCP-Value,  
    ...  
}

D-FieldLength ::= ENUMERATED {  
    v1,  
    v2,  
    ...  
}

DiversityControlField ::= ENUMERATED {  
    may,  
    must,  
    must-not,  
    ...  
}

DiversityMode ::= ENUMERATED {  
    none,  
    sTTD,  
    closed-loop-model,  
}

```
    closed-loop-mode2,
    ...
}

DL-DPCH-SlotFormat ::= INTEGER (0..16)

DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    ...
}

DL-or-Global-CapacityCredit ::= INTEGER (0..65535)

DL-Power ::= INTEGER (-350..150)
-- DL-Power = power * 10
-- If Power <=-35 DL-Power shall be set to -350
-- if Power >=15 DL-Power shall be set to 150
-- Unit dB, Range -35dB .. +15dB, Step +0.1dB

DL-ScramblingCode ::= INTEGER (0..15)
-- 0= Primary scrambling code of the cell, 1..15= Secondary scrambling code --

DPCH-ID ::= INTEGER (0..239)

DSCH-ID ::= INTEGER (0..255)

-- to do
-- the parameter need to be defined. It may correspond to the DL TFS defined for DCH
DSCH-TFS ::= INTEGER

-- =====
-- E
-- =====

-- =====
-- F
-- =====

FDD-DL-ChannelisationCodeNumber ::= INTEGER(0.. 255)
-- The maximum value is equal to the DL spreading factor -1--

FDD-S-CCPCH-Offset ::= INTEGER (0..149)
-- 0: 0 chip, 1: 256 chip, 2: 512 chip, .. ,149: 38144 chip [TS 25.211] --

FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-size1,
    ...
}
```

```
FrameHandlingPriority ::= INTEGER (0..15)
-- 0=lower priority, 15=higher priority --

FrameOffset ::= INTEGER (0..255)

-- =====
-- G
-- =====

GapPeriod ::= INTEGER (0..255)
-- Unit Frame

GapPositionMode ::= ENUMERATED {
    fixed,
    flexible,
    ...
}

-- =====
-- H
-- =====

-- =====
-- I
-- =====

IB-SG-DATA ::= BIT STRING

IB-SG-POS ::= INTEGER (0..2064)
-- Only even positions allowed

IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048}

IB-Type ::= ENUMERATED {
    mib,
    sib1,
    sib2,
    sIB3,
    sIB4,
    sIB5,
    sIB6,
    sIB7,
    sIB8,
    sIB9,
    sIB10,
    sIB11,
    sib12,
    sIB13,
    sIB13dot1,
    sIB13dot2,
    sIB13dot3,
```

```
sIB13dot4,  
sIB14,  
...  
}  
  
IndicationType ::= ENUMERATED {  
    noFailure,  
    serviceImpacting,  
    ...  
}  
  
-- =====  
-- J  
-- =====  
  
-- =====  
-- K  
-- =====  
  
-- =====  
-- L  
-- =====  
  
Local-Cell-ID ::= INTEGER (0..268435455)  
  
-- =====  
-- M  
-- =====  
  
MaximumDL-PowerCapability ::= INTEGER(0..50)  
-- Unit dBm, Range 0dBm .. 50dBm, Step +1dB  
  
MaximumTransmissionPower ::= INTEGER(0..50)  
-- Unit dB, Range 0dB .. 50dB, Step +1dB  
  
MaxNrOfUL-DPDCHs ::= INTEGER (1..6)  
  
MaxPRACH-MidambleShifts ::= ENUMERATED {  
    shift4,  
    shift8,  
    ...  
}  
  
MeasurementFilterCoefficient ::= INTEGER (1..256)  
-- Measurement Filter Coefficient to be used for measurement  
  
MeasurementID ::= INTEGER (0..1048575)  
  
MidambleShift ::= INTEGER (0..15)  
  
MinSpreadingFactor ::= ENUMERATED {
```



```
    v4,
    v16,
    v32,
    v64,
    v128,
    v256,
    v512,
    ...
}

MinUL-ChannelisationCodeLength ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256,
    ...
}

MultiplexingPosition ::= ENUMERATED {
    fixed,
    flexible,
    ...
}

-- =====
-- N
-- =====

N-INSYNC-IND ::= INTEGER (1..256)
N-OUTSYNC-IND ::= INTEGER (1..256)

NodeB-CommunicationContextID ::= INTEGER (0..1048575)

-- =====
-- O
-- =====

-- =====
-- P
-- =====

PagingIndicatorLength ::= INTEGER (2| 4| 8)

PayloadCRC-PresenceIndicator ::= ENUMERATED {
    CRC-Included,
    CRC-NotIncluded,
    ...
}
```

```

}

PCCPCH-Power ::= INTEGER (-150..400)
-- PCCPCH-power = power * 10
-- If power <= -15 PCCPCH shall be set to -150
-- If power >= 40 PCCPCH shall be set to 400
-- Unit dBm, Range -15dBm .. +40 dBm, Step +0.1dBm

PD ::= INTEGER(0..2047, ...)

PDSCH-CodeMapping ::= SEQUENCE {
    dl-ScramblingCode          DL-ScramblingCode,
    signallingMethod          CHOICE {
        code-Range            PDSCH-CodeMapping-PDSCH-CodeMappingInformationList,
        tFCI-Range            PDSCH-CodeMapping-DSCH-MappingInformationList,
        explicit               PDSCH-CodeMapping-PDSCH-CodeInformationList
    },
    iE-Extensions             ProtocolExtensionContainer { { PDSCH-CodeMapping-ExtIEs} } OPTIONAL,
    ...
}

PDSCH-CodeMapping-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-CodeMapping-CodeNumberComp ::= INTEGER (0..maxCodeNrComp-1)

PDSCH-CodeMapping-SpreadingFactor ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256,
    ...
}

PDSCH-CodeMapping-PDSCH-CodeMappingInformationList ::= SEQUENCE (SIZE (1..maxNrOfCodeGroups)) OF
SEQUENCE {
    spreadingFactor            PDSCH-CodeMapping-SpreadingFactor,
    multi-CodeInfo            PDSCH-Multi-CodeInfo,
    start-CodeNumber          PDSCH-CodeMapping-CodeNumberComp,
    stop-CodeNumber           PDSCH-CodeMapping-CodeNumberComp,
    iE-Extensions             ProtocolExtensionContainer { { PDSCH-CodeMapping-PDSCH-CodeMappingInformationList-ExtIEs} } OPTIONAL,
    ...
}

PDSCH-CodeMapping-PDSCH-CodeMappingInformationList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```
PDSCH-CodeMapping-DSCH-MappingInformationList ::= SEQUENCE (SIZE (1..maxNrOfTFCIGroups)) OF
  SEQUENCE {
    maxTFCI-field2-Value          PDSCH-CodeMapping-MaxTFCI-Field2-Value,
    spreadingFactor              PDSCH-CodeMapping-SpreadingFactor,
    multi-CodeInfo              PDSCH-Multi-CodeInfo,
    codeNumber                  PDSCH-CodeMapping-CodeNumberComp,
    iE-Extensions                ProtocolExtensionContainer { { PDSCH-CodeMapping-DSCH-MappingInformationList-ExtIEs} } OPTIONAL,
    ...
  }
PDSCH-CodeMapping-DSCH-MappingInformationList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
PDSCH-CodeMapping-MaxTFCI-Field2-Value ::= INTEGER (1..1023)
PDSCH-CodeMapping-PDSCH-CodeInformationList ::= SEQUENCE (SIZE (1..maxNrOfTFCI2Combs)) OF
  SEQUENCE {
    spreadingFactor              PDSCH-CodeMapping-SpreadingFactor,
    multi-CodeInfo              PDSCH-Multi-CodeInfo,
    codeNumber                  PDSCH-CodeMapping-CodeNumberComp,
    iE-Extensions                ProtocolExtensionContainer { { PDSCH-CodeMapping-PDSCH-CodeInformationList-ExtIEs} } OPTIONAL,
    ...
  }
PDSCH-CodeMapping-PDSCH-CodeInformationList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
PDSCH-Multi-CodeInfo ::= INTEGER (1..16)
PDSCH-ID ::= INTEGER (0..255)
PDSCHSet-ID ::= INTEGER (0..255)
PICH-Mode ::= ENUMERATED {
  v18,
  v36,
  v72,
  v144,
  ...
}
PowerAdjustmentType ::= ENUMERATED {
  none,
  common,
  individual
}
PowerControlMode ::= ENUMERATED {
```

```
    v0,
    v1,
    ...
}

PowerOffset ::= INTEGER (0..24)
-- PowerOffset = offset * 0.25
-- Unit dB, Range 0dB .. +6dB, Step +0.25dB

PowerResumeMode ::= ENUMERATED {
    v0,
    v1,
    ...
}

PRACH-Midamble ::= ENUMERATED {
    inverted,
    direct,
    ...
}

PreambleSignatures ::= BIT STRING (SIZE (16))
-- Bit 0=P0, Bit 1=P1, .. ,Bit 15=P15 [25.213] --

PreambleThreshold ::= INTEGER (0..72)
-- 0= 0dB, 1= 0.5dB, ... , 72= 36dB

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

PrimaryScramblingCode ::= INTEGER (0..511)

PropagationDelay ::= INTEGER (0..255)
-- Unit: chips, step size 3 chips
-- example: 0 = 0chip, 1 = 3chips

SCH-TimeSlot ::= INTEGER (0..6)

PunctureLimit ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100%

PUSCH-ID ::= INTEGER (0..255)

PUSCHSet-ID ::= INTEGER (0..255)

-- =====
-- Q
-- =====

QE-Selector ::= ENUMERATED {
    selected-DCH,
```

```

    non-selected-DCH
}

-- =====
-- R
-- =====

RACH-SlotFormat ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    ...
}

RACH-SubChannelNumbers ::= BIT STRING (SIZE (12))
-- Bit 0=Sub Channel Number 0, Bit 1=Sub Channel Number 1, .., Bit 11=Sub Channel Number 11

RepetitionLength ::= INTEGER (1..63)

RepetitionPeriod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    v16,
    v32,
    v64,
    ...
}

RepetitionNumber ::= INTEGER (0..255)

RefTFCNumber ::= INTEGER (0..15)

ReportCharacteristics ::= CHOICE {
    onDemand          NULL,
    periodic          ReportCharacteristicsType-ReportPeriodicity,
    event-a           ReportCharacteristicsType-EventA,
    event-b           ReportCharacteristicsType-EventB,
    event-c           ReportCharacteristicsType-EventC,
    event-d           ReportCharacteristicsType-EventD,
    event-e           ReportCharacteristicsType-EventE,
    event-f           ReportCharacteristicsType-EventF,
    ...
}

ReportCharacteristicsType-EventA ::= SEQUENCE {
    measurementThreshold      ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime ReportCharacteristicsType-ScaledMeasurementHysteresisTime OPTIONAL,
    IE-Extensions             ProtocolExtensionContainer { { ReportCharacteristicsType-EventA-ExtIEs} } OPTIONAL,

```

```

    }
    ...
}

ReportCharacteristicsType-EventA-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventB ::= SEQUENCE {
    measurementThreshold          ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime     ReportCharacteristicsType-ScaledMeasurementHysteresisTime OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { ReportCharacteristicsType-EventB-ExtIEs} } OPTIONAL,
    ...
}

ReportCharacteristicsType-EventB-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventC ::= SEQUENCE {
    measurementIncreaseThreshold  ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime        ReportCharacteristicsType-ScaledMeasurementChangeTime,
    iE-Extensions                ProtocolExtensionContainer { { ReportCharacteristicsType-EventC-ExtIEs} } OPTIONAL,
    ...
}

ReportCharacteristicsType-EventC-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventD ::= SEQUENCE {
    measurementDecreaseThreshold  ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime        ReportCharacteristicsType-ScaledMeasurementChangeTime,
    iE-Extensions                ProtocolExtensionContainer { { ReportCharacteristicsType-EventD-ExtIEs} } OPTIONAL,
    ...
}

ReportCharacteristicsType-EventD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventE ::= SEQUENCE {
    measurementThreshold1        ReportCharacteristicsType-MeasurementThreshold,
    measurementThreshold2        ReportCharacteristicsType-MeasurementThreshold OPTIONAL,
    measurementHysteresisTime    ReportCharacteristicsType-ScaledMeasurementHysteresisTime OPTIONAL,
    reportPeriodicity            ReportCharacteristicsType-ReportPeriodicity OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { ReportCharacteristicsType-EventE-ExtIEs} } OPTIONAL,
    ...
}

ReportCharacteristicsType-EventE-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```



```
ReportPeriodicity-Scaledmsec ::= INTEGER (1..600)
-- ReportPeriodicity-msec = ReportPeriodicity * 10
-- Unit ms, Range 10ms .. 6000ms(1min), Step 10ms

ReportPeriodicity-Scaledmin ::= INTEGER (1..60)
-- Unit min, Range 1min .. 60min(hour), Step 1min

ResourceOperationalState ::= ENUMERATED {
    enabled,
    disabled,
    ...
}

LimitedPowerIncrease ::= ENUMERATED {
    used,
    not-used
}

RL-ID ::= INTEGER (0..31)

RL-Set-ID          ::= INTEGER (0..31)

RSCP-Value ::= INTEGER (0..81)
-- According to mapping in 25.225

RSCP-Value-IncrDecrThres ::= INTEGER (0..80)

RSSI-Value ::= INTEGER(0..63)
-- According to mapping in 25.215/25.225

RSSI-Value-IncrDecrThres ::= INTEGER (0..62)

-- =====
-- S
-- =====

ScaledMaxAdjustmentPeriod          ::= INTEGER(1..50)
-- MaxAdjustmentPeriod (slots) = 10 * ScaledMaxAdjustmentPeriod

ScaledMaxAdjustmentStep            ::= INTEGER(1..10)
-- MaxAdjustmentStep (dB) = ScaledMaxAdjustmentStep / 10

ScramblingCodeChange ::= ENUMERATED {
    code-change,
    no-code-change,
    ...
}

ScramblingCodeWordNumber ::= INTEGER (0..255)
```



```
SecondaryCCPCH-SlotFormat ::= INTEGER(0..17)
```

```
S-FieldLength ::= ENUMERATED {  
    v1,  
    v2,  
    ...  
}
```

```
-- to do, This parameter is present in NBAP tabular but not defined in IE(TS25.433v3.0.0)  
SFN ::= INTEGER
```

```
ShutdownTimer ::= INTEGER (1..3600)  
-- Unit sec
```

```
SIB-DeletionIndicator ::= ENUMERATED {  
    noDeletion,  
    deletion,  
    ...  
}
```

```
SIB-Originator ::= ENUMERATED {  
    nodeB,  
    cRNC,  
    ...  
}
```

```
SIR-Error-Value ::= INTEGER (0..125)
```

```
SIR-Error-Value-IncrDecrThres ::= INTEGER (0..124)
```

```
SIR-Value ::= INTEGER (0..63)  
-- According to mapping in 25.215/25.225
```

```
SIR-Value-IncrDecrThres ::= INTEGER (0..62)
```

```
SSDT-Cell-Identity ::= ENUMERATED {a, b, c, d, e, f, g, h}
```

```
SSDT-CellID-Length ::= ENUMERATED {  
    short,  
    medium,  
    long,  
    ...  
}
```

```
SSDT-Indication ::= ENUMERATED {  
    ssdt-active-in-the-UE,  
    ssdt-not-active-in-the-UE,  
    ...  
}
```

```
STTD-Indicator ::= ENUMERATED {
```

```
    active,
    inactive,
    ...
}

SSDT-SupportIndicator ::= ENUMERATED {
    sSDT-Supported,
    sSDT-not-supported,
    ...
}

SyncCase ::= INTEGER (1..2)

-- =====
-- T
-- =====

T-Cell ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    v4,
    v5,
    v6,
    v7,
    v8,
    v9,
    ...
}

T-RLFAILURE ::= INTEGER (0..255)
-- Unit seconds, Range 0s .. 25.5s, Step 0.1s

TDD-ChannelisationCode ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
```

```
chCode16div2,  
chCode16div3,  
chCode16div4,  
chCode16div5,  
chCode16div6,  
chCode16div7,  
chCode16div8,  
chCode16div9,  
chCode16div10,  
chCode16div11,  
chCode16div12,  
chCode16div13,  
chCode16div14,  
chCode16div15,  
chCode16div16,  
...  
}
```

- 
- partly omitted
-

## 9.3.7 Constant Definitions for NBAP

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

NBAP-Constants -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- *****
--
-- Elementary Procedures
--
-- *****

id-audit                INTEGER ::= 0
id-auditRequired        INTEGER ::= 1
id-blockResource        INTEGER ::= 2
id-cellDeletion         INTEGER ::= 3
id-cellReconfiguration  INTEGER ::= 4
id-cellSetup            INTEGER ::= 5
id-commonMeasurementFailure  INTEGER ::= 6
id-commonMeasurementInitiation  INTEGER ::= 7
id-commonMeasurementReport  INTEGER ::= 8
id-commonMeasurementTermination  INTEGER ::= 9
id-commonTransportChannelDelete  INTEGER ::= 10
id-commonTransportChannelReconfigure  INTEGER ::= 11
id-commonTransportChannelSetup  INTEGER ::= 12
id-compressedModeCancellation  INTEGER ::= 13
id-compressedModeCommit  INTEGER ::= 14
id-compressedModePreparation  INTEGER ::= 15
id-dedicatedMeasurementFailure  INTEGER ::= 16
id-dedicatedMeasurementInitiation  INTEGER ::= 17
id-dedicatedMeasurementReport  INTEGER ::= 18
id-dedicatedMeasurementTermination  INTEGER ::= 19
id-downlinkPowerControl  INTEGER ::= 20
id-errorIndication       INTEGER ::= 21
id-physicalSharedChannelReconfiguration  INTEGER ::= 37
id-privateMessage        INTEGER ::= 22
id-radioLinkAddition     INTEGER ::= 23
id-radioLinkDeletion     INTEGER ::= 24
id-radioLinkFailure      INTEGER ::= 25
id-radioLinkRestoration  INTEGER ::= 26
id-radioLinkSetup        INTEGER ::= 27
id-resourceStatusIndication  INTEGER ::= 28
id-synchronisedRadioLinkReconfigurationCancellation  INTEGER ::= 29
```

```
id-synchronisedRadioLinkReconfigurationCommit      INTEGER ::= 30
id-synchronisedRadioLinkReconfigurationPreparation  INTEGER ::= 31
id-systemInformationUpdate                         INTEGER ::= 32
id-unblockResource                                INTEGER ::= 33
id-unSynchronisedRadioLinkReconfiguration          INTEGER ::= 34
```

```
-- *****
--
-- Extension constants
--
-- *****
```

```
maxPrivateIEs          INTEGER ::= 65535
maxProtocolExtensions  INTEGER ::= 65535
maxProtocolIEs         INTEGER ::= 65535
```

```
-- *****
--
-- Lists
--
-- *****
```

```
maxNrOfCodes           INTEGER ::= 10
maxNrOfCMPatterns      INTEGER ::= 8
maxNrOfDLCodes         INTEGER ::= 10
maxNrOfErrors          INTEGER ::= 10
maxNrOfTFs             INTEGER ::= 10
maxNrOfTFCs            INTEGER ::= 10
maxNrOfRLs             INTEGER ::= 10
maxNrOfRLSets         INTEGER ::= 10
maxNrOfDPCHs           INTEGER ::= 10
maxNrOfSCCPCHs        INTEGER ::= 10
maxNrOfPRACHs         INTEGER ::= 10
maxNrOfDCHs            INTEGER ::= 10
maxNrOfDSCHs          INTEGER ::= 10
maxNrOfFACHs          INTEGER ::= 10
maxNrOfCCTrCHs        INTEGER ::= 10
maxNrOfPDSCHs         INTEGER ::= 10
maxNrOfPUSCHs         INTEGER ::= 10
maxNrOfPDSCHSets      INTEGER ::= 10
maxNrOfPUSCHSets      INTEGER ::= 10
maxNrOfULTSs          INTEGER ::= 15
maxNrOfUSCHs          INTEGER ::= 10
maxSF                  INTEGER ::= 10
maxCellInNodeB        INTEGER ::= 10
maxCCPinNodeB         INTEGER ::= 10
maxCTFC-1             INTEGER ::= 10
maxLocalCellInNodeB  INTEGER ::= 10
maxRACHCell           INTEGER ::= 10
maxPRACHCell          INTEGER ::= 10
```

```

maxSCCPCHCell          INTEGER ::= 10
maxSCPICHCell          INTEGER ::= 10
maxTTI-count           INTEGER ::= 10
maxIBSEG               INTEGER ::= 10
maxIB                  INTEGER ::= 10
maxFACHCell            INTEGER ::= 10
maxRateMatching        INTEGER ::= 10
maxCodeNrComp-1       INTEGER ::= 10
maxNrOfCodeGroups      INTEGER ::= 10
maxNrOfTFCIGroups      INTEGER ::= 10
maxNrOfTFCI1Combs      INTEGER ::= 10
maxNrOfTFCI2Combs      INTEGER ::= 10
maxCTFC-DCH-1          INTEGER ::= 10
maxCTFC-DSCH-1         INTEGER ::= 10
maxNrOfSF               INTEGER ::= 8

```

```

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

```

```

id-AICH-InformationItem-AuditRsp          INTEGER ::= 0
id-AICH-InformationItem-ResourceStatusInd  INTEGER ::= 1
id-AICH-ParametersList-CTCH-ReconfRqstFDD INTEGER ::= 2
id-AllRLItem-DM-Rprt                      INTEGER ::= 3
id-AllRLItem-DM-Rsp                       INTEGER ::= 4
id-AllRLItem-Set-DM-Rprt                  INTEGER ::= 5
id-AllRLItem-Set-DM-Rsp                   INTEGER ::= 6
id-BCH-InformationItem-AuditRsp           INTEGER ::= 7
id-BCH-InformationItem-ResourceStatusInd   INTEGER ::= 8
id-BCCH-ModificationTime                  INTEGER ::= 9
id-BlockingPriorityIndicator               INTEGER ::= 10
id-Case1Item-Cell-SetupRqstTDD            INTEGER ::= 11
id-Case2Item-Cell-SetupRqstTDD            INTEGER ::= 12
id-Cause                                   INTEGER ::= 13
id-CCP-InformationItem-AuditRsp           INTEGER ::= 14
id-CCP-InformationList-AuditRsp           INTEGER ::= 15
id-CCP-InformationItem-ResourceStatusInd   INTEGER ::= 16
id-Cell-InformationItem-AuditRsp          INTEGER ::= 17
id-Cell-InformationItem-ResourceStatusInd  INTEGER ::= 18
id-Cell-InformationList-AuditRsp          INTEGER ::= 19
id-CellItem-CM-Rprt                       INTEGER ::= 20
id-CellItem-CM-Rqst                       INTEGER ::= 21
id-CellItem-CM-Rsp                         INTEGER ::= 22
id-CellParameterID                        INTEGER ::= 23
id-CFN                                     INTEGER ::= 24
id-C-ID                                    INTEGER ::= 25
id-CombiningItem-RL-AdditionFailureFDD    INTEGER ::= 26
id-CombiningItem-RL-AdditionRspFDD        INTEGER ::= 27
id-CombiningItem-RL-AdditionRspTDD        INTEGER ::= 28

```

id-CombiningItem-RL-SetupFailureFDD	INTEGER ::= 29
id-CombiningItem-RL-SetupRspFDD	INTEGER ::= 30
id-CommonMeasurementObjectType-CM-Rprt	INTEGER ::= 31
id-CommonMeasurementObjectType-CM-Rqst	INTEGER ::= 32
id-CommonMeasurementObjectType-CM-Rsp	INTEGER ::= 33
id-CommonMeasurementType	INTEGER ::= 34
id-CommonPhysicalChannelID	INTEGER ::= 35
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD	INTEGER ::= 36
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD	INTEGER ::= 37
id-CommonTransportChannelType-CTCH-ReconfRqstTDD	INTEGER ::= 38
id-CommonTransportChannelType-CTCH-SetupRsp	INTEGER ::= 39
id-CommunicationControlPortID	INTEGER ::= 40
id-CM-PatternInformationItem-CompressedModePrep	INTEGER ::= 41
id-CM-PatternInformationList-CompressedModePrep	INTEGER ::= 42
id-ConfigurationGenerationID	INTEGER ::= 43
id-CRNC-CommunicationContextID	INTEGER ::= 44
id-CriticalityDiagnostics	INTEGER ::= 45
id-DCH-AddListIE-RL-ReconfReady	INTEGER ::= 46
id-DCH-AddListIE-RL-ReconfRsp	INTEGER ::= 47
id-DCH-AddList-RL-ReconfPrepFDD	INTEGER ::= 48
id-DCH-AddList-RL-ReconfPrepTDD	INTEGER ::= 49
id-DCH-AddList-RL-ReconfRqstFDD	INTEGER ::= 50
id-DCH-AddList-RL-ReconfRqstTDD	INTEGER ::= 51
id-DCH-DeleteList-RL-ReconfPrepFDD	INTEGER ::= 52
id-DCH-DeleteList-RL-ReconfPrepTDD	INTEGER ::= 53
id-DCH-DeleteList-RL-ReconfRqstFDD	INTEGER ::= 54
id-DCH-DeleteList-RL-ReconfRqstTDD	INTEGER ::= 55
id-DCH-InformationList-RL-SetupRqstFDD	INTEGER ::= 56
id-DCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 57
id-DCH-InformationResponseItem-RL-SetupRspTDD	INTEGER ::= 58
id-DCH-InformationResponseListIE-RL-SetupRspTDD	INTEGER ::= 59
id-DCH-ModifyListIE-RL-ReconfReady	INTEGER ::= 60
id-DCH-ModifyListIE-RL-ReconfRsp	INTEGER ::= 61
id-DCH-ModifyList-RL-ReconfPrepFDD	INTEGER ::= 62
id-DCH-ModifyList-RL-ReconfPrepTDD	INTEGER ::= 63
id-DCH-ModifyList-RL-ReconfRqstFDD	INTEGER ::= 64
id-DCH-ModifyList-RL-ReconfRqstTDD	INTEGER ::= 65
id-DedicatedMeasurementObjectType	INTEGER ::= 66
id-DedicatedMeasurementObjectType-DM-Rprt	INTEGER ::= 67
id-DedicatedMeasurementObjectType-DM-Rqst	INTEGER ::= 68
id-DedicatedMeasurementObjectType-DM-Rsp	INTEGER ::= 69
id-DedicatedMeasurementType	INTEGER ::= 70
id-DL-CCTrCH-InformationItem-RL-ReconfRqstTDD	INTEGER ::= 71
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD	INTEGER ::= 72
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD	INTEGER ::= 73
id-DL-CCTrCH-InformationList-RL-ReconfPrepTDD	INTEGER ::= 74
id-DL-CCTrCH-InformationList-RL-ReconfRqstTDD	INTEGER ::= 75
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 76
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD	INTEGER ::= 77
id-DL-DPCH-InformationList-RL-AdditionRqstTDD	INTEGER ::= 78
id-DL-DPCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 79

id-DL-DPCH-InformationListIE-RL-ReconfPrepTDD	INTEGER ::= 80
id-DL-DPCH-Information-RL-ReconfPrepFDD	INTEGER ::= 81
id-DL-DPCH-Information-RL-ReconfRqstFDD	INTEGER ::= 82
id-DL-DPCH-Information-RL-SetupRqstFDD	INTEGER ::= 83
id-DL-ReferencePowerInformationItem-DL-PC-Rqst	INTEGER ::= 84
id-DLReferencePower	INTEGER ::= 85
id-DLReferencePowerList-DL-PC-Rqst	INTEGER ::= 86
id-DSCH-AddItem-RL-ReconfPrepFDD	INTEGER ::= 87
id-DSCH-AddItem-RL-ReconfRqstFDD	INTEGER ::= 88
id-DSCH-AddList-RL-ReconfPrepFDD	INTEGER ::= 89
id-DSCH-AddList-RL-ReconfRqstFDD	INTEGER ::= 90
id-DSCH-DeleteItem-RL-ReconfPrepFDD	INTEGER ::= 91
id-DSCH-DeleteItem-RL-ReconfRqstFDD	INTEGER ::= 92
id-DSCH-DeleteList-RL-ReconfPrepFDD	INTEGER ::= 93
id-DSCH-DeleteList-RL-ReconfRqstFDD	INTEGER ::= 94
id-DSCH-ID	INTEGER ::= 95
id-DSCH-information-AddList-RL-ReconfPrepTDD	INTEGER ::= 96
id-DSCH-Information-AddList-RL-ReconfRqstTDD	INTEGER ::= 97
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD	INTEGER ::= 98
id-DSCH-Information-DeleteList-RL-ReconfRqstTDD	INTEGER ::= 99
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD	INTEGER ::= 100
id-DSCH-Information-ModifyList-RL-ReconfRqstTDD	INTEGER ::= 101
id-DSCH-InformationResponseListIE-RL-AdditionRspTDD	INTEGER ::= 102
id-DSCH-InformationRespListIE-RL-SetupFailureFDD	INTEGER ::= 103
id-DSCH-InformationResponseListIE-RL-SetupRspFDD	INTEGER ::= 104
id-DSCH-InformationResponseListIE-RL-SetupRspTDD	INTEGER ::= 105
id-DSCH-InformationList-RL-SetupRqstFDD	INTEGER ::= 106
id-DSCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 107
id-DSCH-ModifyItem-RL-ReconfPrepFDD	INTEGER ::= 108
id-DSCH-ModifyItem-RL-ReconfRqstFDD	INTEGER ::= 109
id-DSCH-ModifyListIE-RL-ReconfReady	INTEGER ::= 110
id-DSCH-ModifyListIE-RL-ReconfRsp	INTEGER ::= 111
id-DSCH-ModifyList-RL-ReconfPrepFDD	INTEGER ::= 112
id-DSCH-ModifyList-RL-ReconfRqstFDD	INTEGER ::= 113
id-DSCH-SetupListIE-RL-ReconfReady	INTEGER ::= 114
id-DSCH-SetupListIE-RL-ReconfRsp	INTEGER ::= 115
id-FACH-InformationItem-AuditRsp	INTEGER ::= 116
id-FACH-InformationItem-ResourceStatusInd	INTEGER ::= 117
id-FACHItem-CTCH-SetupRsp	INTEGER ::= 118
id-FACH-ParametersList-CTCH-ReconfRqstFDD	INTEGER ::= 119
id-FACH-ParametersList-CTCH-ReconfRqstTDD	INTEGER ::= 120
id-FACH-ParametersListIE-CTCH-SetupRqstFDD	INTEGER ::= 121
id-FACH-ParametersListIE-CTCH-SetupRqstTDD	INTEGER ::= 122
id-IndicationType-ResourceStatusInd	INTEGER ::= 123
id-Local-Cell-ID	INTEGER ::= 124
id-Local-Cell-InformationItem-AuditRsp	INTEGER ::= 125
id-Local-Cell-InformationItem-ResourceStatusInd	INTEGER ::= 126
id-Local-Cell-InformationItem2-ResourceStatusInd	INTEGER ::= 127
id-Local-Cell-InformationList-AuditRsp	INTEGER ::= 128
id-MaxAdjustmentPeriod	INTEGER ::= 129
id-MaxAdjustmentStep	INTEGER ::= 130



id-MaximumTransmissionPower	INTEGER ::= 131
id-MeasurementFilterCoefficient	INTEGER ::= 132
id-MeasurementID	INTEGER ::= 133
id-MIB-SIB-InformationList-SystemInfoUpdateRqst	INTEGER ::= 134
id-NodeBInformation-AuditRep	INTEGER ::= 135
id-No-DeletionItem-SystemInfoUpdate	INTEGER ::= 136
id-No-FailureItem-ResourceStatusInd	INTEGER ::= 137
id-Non-CombiningItem-RL-AdditionFailureFDD	INTEGER ::= 138
id-Non-CombiningItem-RL-AdditionRspFDD	INTEGER ::= 139
id-Non-CombiningItem-RL-AdditionRspTDD	INTEGER ::= 140
id-NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD	INTEGER ::= 141
id-NonCombiningOrIENotPrsentItem-RL-SetupRspFDD	INTEGER ::= 142
id-NodeB-CommunicationContextID	INTEGER ::= 143
id-P-CCPCH-InformationItem-AuditRsp	INTEGER ::= 144
id-P-CCPCH-InformationItem-ResourceStatusInd	INTEGER ::= 145
id-P-CPICH-InformationItem-AuditRsp	INTEGER ::= 146
id-P-CPICH-InformationItem-ResourceStatusInd	INTEGER ::= 147
id-P-SCH-InformationItem-AuditRsp	INTEGER ::= 148
id-P-SCH-InformationItem-ResourceStatusInd	INTEGER ::= 149
id-PCCPCH-Information-Cell-ReconfRqstTDD	INTEGER ::= 150
id-PCCPCH-Information-Cell-SetupRqstTDD	INTEGER ::= 151
id-PCH-InformationItem-ResourceStatusInd	INTEGER ::= 152
id-PCHItem-CTCH-SetupRsp	INTEGER ::= 153
id-PCH-Parameters-CTCH-ReconfRqstFDD	INTEGER ::= 154
id-PCH-Parameters-CTCH-ReconfRqstTDD	INTEGER ::= 155
id-PCH-ParametersItem-CTCH-SetupRqstFDD	INTEGER ::= 156
id-PCH-ParametersItem-CTCH-SetupRqstTDD	INTEGER ::= 157
id-PCH-InformationItem-AuditRsp	INTEGER ::= 158
id-PICH-InformationItem-ResourceStatusInd	INTEGER ::= 159
id-PD	INTEGER ::= 160
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst	INTEGER ::= 161
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst	INTEGER ::= 162
id-PDSCHSets-AddList-PSCH-ReconfRqst	INTEGER ::= 163
id-PDSCHSets-DeleteList-PSCH-ReconfRqst	INTEGER ::= 164
id-PDSCHSets-ModifyList-PSCH-ReconfRqst	INTEGER ::= 165
id-PICH-InformationItem-AuditRsp	INTEGER ::= 166
id-PICH-Parameters-CTCH-ReconfRqstFDD	INTEGER ::= 167
id-PICH-Parameters-CTCH-ReconfRqstTDD	INTEGER ::= 168
id-PowerAdjustmentType	INTEGER ::= 169
id-PRACH-InformationItem-AuditRsp	INTEGER ::= 170
id-PRACH-InformationItem-ResourceStatusInd	INTEGER ::= 171
id-PRACHItem-CTCH-SetupRqstFDD	INTEGER ::= 172
id-PRACHItem-CTCH-SetupRqstTDD	INTEGER ::= 173
id-PRACH-ParametersList-CTCH-ReconfRqstFDD	INTEGER ::= 174
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD	INTEGER ::= 175
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD	INTEGER ::= 176
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD	INTEGER ::= 177
id-PrimaryCPICH-Information-Cell-SetupRqstFDD	INTEGER ::= 178
id-PrimarySCH-Information-Cell-ReconfRqstFDD	INTEGER ::= 179
id-PrimarySCH-Information-Cell-SetupRqstFDD	INTEGER ::= 180
id-PrimaryScramblingCode	INTEGER ::= 181

id-ProcedureScopeType-DL-PC-Rqst  
 id-SCH-Information-Cell-ReconfRqstTDD  
 id-SCH-Information-Cell-SetupRqstTDD  
 id-PUSCH-Information-AddListIE-PSCH-ReconfRqst  
 id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst  
 id-PUSCHSets-AddList-PSCH-ReconfRqst  
 id-PUSCHSets-DeleteList-PSCH-ReconfRqst  
 id-PUSCHSets-ModifyList-PSCH-ReconfRqst  
 id-RACH-InformationItem-AuditRsp  
 id-RACH-InformationItem-ResourceStatusInd  
 id-RACHItem-CTCH-SetupRsp  
 id-RACHItem-CM-Rprt  
 id-RACHItem-CM-Rqst  
 id-RACHItem-CM-Rsp  
 id-RACH-ParametersItem-CTCH-SetupRqstFDD  
 id-RACH-ParameterItem-CTCH-SetupRqstTDD  
 id-ReportCharacteristics  
 id-Reporting-Object-RL-FailureInd  
 id-Reporting-Object-RL-RestoreInd  
 id-RL-ID  
 id-RL-InformationItem-DM-Rprt  
 id-RL-InformationItem-DM-Rqst  
 id-RL-InformationItem-DM-Rsp  
 id-RL-InformationItem-RL-AdditionRqstFDD  
 id-RL-informationItem-RL-DeletionRqst  
 id-RL-InformationItem-RL-FailureInd  
 id-RL-InformationItem-RL-ReconfPrepFDD  
 id-RL-InformationItem-RL-ReconfRqstFDD  
 id-RL-InformationItem-RL-RestoreInd  
 id-RL-InformationItem-RL-SetupRqstFDD  
 id-RL-InformationList-RL-AdditionRqstFDD  
 id-RL-informationList-RL-DeletionRqst  
 id-RL-InformationList-RL-ReconfPrepFDD  
 id-RL-InformationList-RL-ReconfRqstFDD  
 id-RL-InformationList-RL-SetupRqstFDD  
 id-RL-InformationResponseItem-RL-AdditionRspFDD  
 id-RL-InformationResponseItem-RL-ReconfReady  
 id-RL-InformationResponseItem-RL-ReconfRsp  
 id-RL-InformationResponseItem-RL-SetupRspFDD  
 id-RL-InformationResponseList-RL-AdditionRspFDD  
 id-RL-InformationResponseList-RL-ReconfReady  
 id-RL-InformationResponseList-RL-ReconfRsp  
 id-RL-InformationResponseList-RL-SetupRspFDD  
 id-RL-InformationResponse-RL-AdditionRspTDD  
 id-RL-InformationResponse-RL-SetupRspTDD  
 id-RL-Information-RL-AdditionRqstTDD  
 id-RL-Information-RL-ReconfRqstTDD  
 id-RL-Information-RL-ReconfPrepTDD  
 id-RL-Information-RL-SetupRqstTDD  
 id-RLItem-DM-Rprt  
 id-RLItem-DM-Rqst

INTEGER ::= 182  
 INTEGER ::= 183  
 INTEGER ::= 184  
 INTEGER ::= 185  
 INTEGER ::= 186  
 INTEGER ::= 187  
 INTEGER ::= 188  
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 INTEGER ::= 229  
 INTEGER ::= 230  
 INTEGER ::= 231  
 INTEGER ::= 232

id-RLItem-DM-Rsp	INTEGER ::= 233
id-RLItem-RL-FailureInd	INTEGER ::= 234
id-RLItem-RL-RestoreInd	INTEGER ::= 235
id-RL-ReconfigurationFailureItem-RL-ReconfFailure	INTEGER ::= 236
id-RL-ReconfigurationFailureList-RL-ReconfFailure	INTEGER ::= 237
id-RL-Set-InformationItem-DM-Rprt	INTEGER ::= 238
id-RL-SetItem-DM-Rqst	INTEGER ::= 239
id-RL-Set-InformationItem-DM-Rsp	INTEGER ::= 240
id-RL-Set-InformationItem-RL-FailureInd	INTEGER ::= 241
id-RL-Set-InformationItem-RL-RestoreInd	INTEGER ::= 242
id-RL-SetItem-DM-Rprt	INTEGER ::= 243
id-RL-SetItem-DM-Rsp	INTEGER ::= 244
id-RL-SetItem-RL-FailureInd	INTEGER ::= 245
id-RL-SetItem-RL-RestoreInd	INTEGER ::= 246
id-S-CCPCH-InformationItem-AuditRsp	INTEGER ::= 247
id-S-CCPCH-InformationItem-ResourceStatusInd	INTEGER ::= 248
id-S-CPICH-InformationItem-AuditRsp	INTEGER ::= 249
id-S-CPICH-InformationItem-ResourceStatusInd	INTEGER ::= 250
id-SCH-InformationItem-AuditRsp	INTEGER ::= 251
id-SCH-InformationItem-ResourceStatusInd	INTEGER ::= 252
id-S-SCH-InformationItem-AuditRsp	INTEGER ::= 253
id-S-SCH-InformationItem-ResourceStatusInd	INTEGER ::= 254
id-Secondary-CCPCHItem-CTCH-SetupRqstFDD	INTEGER ::= 255
id-Secondary-CCPCHItem-CTCH-SetupRqstTDD	INTEGER ::= 256
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD	INTEGER ::= 257
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD	INTEGER ::= 258
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD	INTEGER ::= 259
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD	INTEGER ::= 260
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD	INTEGER ::= 261
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD	INTEGER ::= 262
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD	INTEGER ::= 263
id-SecondarySCH-Information-Cell-ReconfRqstFDD	INTEGER ::= 264
id-SecondarySCH-Information-Cell-SetupRqstFDD	INTEGER ::= 265
id-SegmentInformationListIE-SystemInfoUpdate	INTEGER ::= 266
id-ServiceImpactingItem-ResourceStatusInd	INTEGER ::= 267
id-SFN	INTEGER ::= 268
id-ShutdownTimer	INTEGER ::= 269
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD	INTEGER ::= 270
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD	INTEGER ::= 271
id-Successful-RL-InformationRespList-RL-AdditionFailureFDD	INTEGER ::= 272
id-Successful-RL-InformationRespList-RL-SetupFailureFDD	INTEGER ::= 273
id-Synchronisation-Configuration-Cell-ReconfRqst	INTEGER ::= nnn
id-Synchronisation-Configuration-Cell-SetupRqst	INTEGER ::= nnn
id-SyncCase	INTEGER ::= 274
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH	INTEGER ::= 275
id-T-Cell	INTEGER ::= 276
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD	INTEGER ::= 277
id-TimeSlotConfigurationList-Cell-SetupRqstTDD	INTEGER ::= 278
id-TransmissionDiversityApplied	INTEGER ::= 279
id-UARFCNforNt	INTEGER ::= 280
id-UARFCNforNd	INTEGER ::= 281

id-UARFCNforNu	INTEGER ::= 282
id-UL-CCTrCH-InformationItem-RL-ReconfRqstTDD	INTEGER ::= 283
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD	INTEGER ::= 284
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD	INTEGER ::= 285
id-UL-CCTrCH-InformationList-RL-ReconfPrepTDD	INTEGER ::= 286
id-UL-CCTrCH-InformationList-RL-ReconfRqstTDD	INTEGER ::= 287
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 288
id-UL-DPCH-InformationItem-RL-AdditionRqstTDD	INTEGER ::= 289
id-UL-DPCH-InformationList-RL-AdditionRqstTDD	INTEGER ::= 290
id-UL-DPCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 291
id-UL-DPCH-InformationListIE-RL-ReconfPrepTDD	INTEGER ::= 292
id-UL-DPCH-Information-RL-ReconfPrepFDD	INTEGER ::= 293
id-UL-DPCH-Information-RL-ReconfRqstFDD	INTEGER ::= 294
id-UL-DPCH-Information-RL-SetupRqstFDD	INTEGER ::= 295
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD	INTEGER ::= 296
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD	INTEGER ::= 297
id-Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD	INTEGER ::= 298
id-Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD	INTEGER ::= 299
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD	INTEGER ::= 300
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD	INTEGER ::= 301
id-USCH-information-AddList-RL-ReconfPrepTDD	INTEGER ::= 302
id-USCH-Information-AddList-RL-ReconfRqstTDD	INTEGER ::= 303
id-USCH-Information-DeleteList-RL-ReconfPrepTDD	INTEGER ::= 304
id-USCH-Information-DeleteList-RL-ReconfRqstTDD	INTEGER ::= 305
id-USCH-Information-ModifyList-RL-ReconfPrepTDD	INTEGER ::= 306
id-USCH-Information-ModifyList-RL-ReconfRqstTDD	INTEGER ::= 307
id-USCH-InformationResponseListIE-RL-AdditionRspTDD	INTEGER ::= 308
id-USCH-InformationResponseListIE-RL-SetupRspTDD	INTEGER ::= 309
id-USCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 310
id-USCH-ModifyListIE-RL-ReconfReady	INTEGER ::= 311
id-USCH-ModifyListIE-RL-ReconfRsp	INTEGER ::= 312
id-USCH-SetupListIE-RL-ReconfReady	INTEGER ::= 313
id-USCH-SetupListIE-RL-ReconfRsp	INTEGER ::= 314

END

## CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

**25.433**

**CR 090r1**

Current Version: **3.1.0**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **TSG-RAN#8**  
 list expected approval meeting # here ↑

for approval   
 for information

Strategic   
 non-strategic  (for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: <http://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:**  
 (at least one should be marked with an X)

(U)SIM  ME  UTRAN / Radio  Core Network

**Source:** R-WG3 **Date:** 10 April

**Subject:** Add "NULL" for only one component to choose in ASN.1 CHOICE type.

**Work item:**

**Category:**  
 (only one category shall be marked with an X)

F Correction	<input checked="" type="checkbox"/>	<b>Release:</b> Phase 2	<input type="checkbox"/>
A Corresponds to a correction in an earlier release	<input type="checkbox"/>	Release 96	<input type="checkbox"/>
B Addition of feature	<input type="checkbox"/>	Release 97	<input type="checkbox"/>
C Functional modification of feature	<input type="checkbox"/>	Release 98	<input type="checkbox"/>
D Editorial modification	<input type="checkbox"/>	Release 99	<input checked="" type="checkbox"/>
		Release 00	<input type="checkbox"/>

**Reason for change:** In ASN.1, the definition of Transport Format Set contains CHOICE type. But the number of components of this CHOICE is only one (TDD only). This means that this component related to TDD mode is always encoded even if FDD mode is chosen. This CR proposes to add the NULL component to the CHOICE type so that no data is encoded when it is not TDD mode.

**Clauses affected:** 9.3.4

**Other specs affected:**

Other 3G core specifications	<input type="checkbox"/>	→ List of CRs:	
Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:	
MS test specifications	<input type="checkbox"/>	→ List of CRs:	
BSS test specifications	<input type="checkbox"/>	→ List of CRs:	
O&M specifications	<input type="checkbox"/>	→ List of CRs:	

**Other comments:**



help.doc

<----- double-click here for help and instructions on how to create a CR.

## 9.3.4 Information Element Definitions

```
-- partly omitted --

TransportFormatSet ::= SEQUENCE {
    dynamicParts          TransportFormatSet-DynamicPartList,
    semi-staticPart      TransportFormatSet-Semi-staticPart,
    iE-Extensions        ProtocolExtensionContainer { { TransportFormatSet-ExtIEs } }
    OPTIONAL,
    ...
}

TransportFormatSet-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
    SEQUENCE {
        nrOfTransportBlocks          TransportFormatSet-NrOfTransportBlocks,
        transportBlockSize          TransportFormatSet-TransportBlockSize OPTIONAL,
        -- This IE is only present if "Number of Transport Blocks" is greater than 0
        mode                        TransportFormatSet-ModeDP,
        iE-Extensions              ProtocolExtensionContainer { { TransportFormatSet-
DynamicPartList-ExtIEs } }          OPTIONAL,
        ...
    }

TransportFormatSet-DynamicPartList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransmissionTimeIntervallist ::= SEQUENCE (SIZE (1..maxTTI-count)) OF
    SEQUENCE {
        transmissionTimeInterval      TransportFormatSet-TransmissionTimeInterval,
        iE-Extensions                ProtocolExtensionContainer { { TransmissionTimeIntervallist-
ExtIEs } }                          OPTIONAL,
        ...
    }

TransmissionTimeIntervallist-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-Semi-staticPart ::= SEQUENCE {
    transmissionTimeInterval          TransportFormatSet-TransmissionTimeInterval OPTIONAL,
    -- This IE is mandatory if not defined sa dynamic parameter. Otherwise it is absent
    channelCoding                    TransportFormatSet-ChannelCodingType,
    codingRate                        TransportFormatSet-CodingRate OPTIONAL,
    -- This IE is only present if channelCoding is 'convolutional' or 'turbo'
    rateMatcngAttribute              TransportFormatSet-RateMatchingAttribute,
    cRC-Size                         TransportFormatSet-CRC-Size,
    mode                             TransportFormatSet-ModeSSP ,
    iE-Extensions                    ProtocolExtensionContainer { { TransportFormatSet-Semi-
staticPart-ExtIEs } }                OPTIONAL,
    ...
}

TransportFormatSet-Semi-staticPart-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-ChannelCodingType ::= ENUMERATED {
    no-coding,
    convolutional-coding,
    turbo-coding,
    ...
}

TransportFormatSet-CodingRate ::= ENUMERATED {
    half,
    third,
    ...
}

TransportFormatSet-CRC-Size ::= ENUMERATED {
    v0,

```

```
v8,  
v12,  
v16,  
v24,  
...  
}  
  
TransportFormatSet-ModeDP ::= CHOICE {  
    tdd      TransmissionTimeIntervalList,  
    -- This IE is mandatory if not defined as semistatic parameter, otherwise it is absent  
| notApplicable      NULL,  
    ...  
}  
  
TransportFormatSet-ModeSSP ::= CHOICE {  
    tdd      TransportFormatSet-SecondInterleavingMode,  
| notApplicable      NULL,  
    ...  
}
```

## CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

**25.433**

**CR 091r1**

Current Version: **3.1.0**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **TSG-RAN#8**

list expected approval meeting # here ↑

for approval   
 for information

Strategic   
 non-strategic  (for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG    The latest version of this form is available from: <http://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:** (U)SIM  ME  UTRAN / Radio  Core Network   
(at least one should be marked with an X)

**Source:** R-WG3 **Date:** 10 April

**Subject:** Change INTEGER to ENUMERATED for Paging Indicator Length, IB SG REP IE and TGL IE

**Work item:**

<b>Category:</b>	F Correction <input checked="" type="checkbox"/> A Corresponds to a correction in an earlier release <input type="checkbox"/> B Addition of feature <input type="checkbox"/> C Functional modification of feature <input type="checkbox"/> D Editorial modification <input type="checkbox"/>	<b>Release:</b>	Phase 2 <input type="checkbox"/> Release 96 <input type="checkbox"/> Release 97 <input type="checkbox"/> Release 98 <input type="checkbox"/> Release 99 <input checked="" type="checkbox"/> Release 00 <input type="checkbox"/>
------------------	--	-----------------	--

(only one category shall be marked with an X)

**Reason for change:** In the ASN.1, the definition of Paging Indicator Length IE and TGL IE are changed from INTEGER type to ENUMERATED type in order to reduce the bit length when encoding.

**Clauses affected:** 9.2.1.31, 9.2.2.41, 9.2.3.7, 9.3.4

<b>Other specs affected:</b>	Other 3G core specifications <input type="checkbox"/> Other GSM core specifications <input type="checkbox"/> MS test specifications <input type="checkbox"/> BSS test specifications <input type="checkbox"/> O&M specifications <input type="checkbox"/>	→ List of CRs: → List of CRs: → List of CRs: → List of CRs: → List of CRs:	
------------------------------	---	--	--

**Other comments:**



<----- double-click here for help and instructions on how to create a CR.



## 9.2 Information Element Functional Definition and Contents

-- partly omitted --

### 9.2.1.31 IB\_SG\_REP

Repetition distance for an Information Block segment. The segment shall be transmitted when  $SFN \bmod IB\_SG\_REP = IB\_SG\_POS$ .

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IB SG REP			<a href="#">ENUMERATED INTEGER</a> R (4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048)	Repetition period for the IB segment in frames

-- partly omitted --

### 9.2.2.41 TGL

Transmission Gap Length is the duration of no transmission, expressed in number of slots.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TGL			<a href="#">ENUMERATED INTEGER</a> (3,4,7,10,14)	Slot

-- partly omitted --

### 9.2.3.7 Paging Indicator Length

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Paging Indicator Length			<del>INTEGER (2 4 8)</del> <a href="#">ENUMERATED (2, 4, 8)</a>	number of symbols in the page indicator / see TS25.221

-- partly omitted --

## 9.3.4 NBAP Information Elements

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

-- partly omitted --

```
IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048}
```

-- partly omitted --

```
PagingIndicatorLength ::= INTEGER (2|4|8)ENUMERATED {
    v2,
    v4,
```

```
| v8  
| }
```

```
-- partly omitted --
```

```
| TGL ::= INTEGER (3|4|7|10|14)ENUMERATED {  
| v3,  
| v4,  
| v7,  
| v10,  
| v14  
| }
```



### 9.2.1.11 Common Measurement Value

The Common Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
>Transmitted Carrier Power Value	C <i>MeasValue</i>		INTEGER(0..100)	According to mapping in 25.215/25.225
>RSSI Value	C <i>MeasValue</i>		INTEGER(0..6213)	According to mapping in 25.215/25.225
>Acknowledged RA tries Value	C <i>MeasValue</i>		INTEGER(0..240, ...)	The number of L1 acknowledged random access tries per every 20 ms period.
>Timeslot ISCP (TDD only)	C <i>MeasValue</i>		INTEGER(0..81)	According to mapping in 25.225

Condition	Explanation
<i>MeasValue</i>	Only one measurement value can be present at the same time.

## 9.2.1.67 Measurement Threshold

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

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
RSSI	<i>C – Threshold</i>		INTEGER(0. .6213)	According to mapping in 25.215/25.225
Transmitted Carrier Power	<i>C – Threshold</i>		INTEGER(0. .100)	According to mapping in 25.215/25.225
Acknowledged RA tries	<i>C – Threshold</i>		INTEGER(0. .240,...)	The number of L1 acknowledged random access tries per every 20 ms period.
Timeslot ISCP	<i>C – Threshold</i>		INTEGER(0. .81)	According to mapping in 25.225 (TDD only)
SIR	<i>C – Threshold</i>		INTEGER(0. .63)	According to mapping in 25.215/25.225
SIR Error	<i>C – Threshold</i>		INTEGER(0. .125)	SIR_Error=SIR-SIR_target 0: < -31.0 dB 1: -31.0dB ≤ SIR_Error < 30.5dB 2: -30.5dB ≤ SIR_Error < 30.0dB ... 62: -0.5dB ≤ SIR_Error < 0dB 63: 0dB ≤ SIR_Error < 0.5dB ... 124: 30.5dB ≤ SIR_Error < 31dB 125: ≥ 31dB
Transmitted Code Power	<i>C – Threshold</i>		INTEGER(0. .127)	According to mapping in 25.215/25.225
RSCP	<i>C – Threshold</i>		INTEGER(0. .81)	According to mapping in 25.225 (TDD only)

Condition	Explanation
<i>Threshold</i>	Only one measurement threshold can be present at the same time.

## 9.2.1.68 Measurement Increase/Decrease Threshold

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

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
RSSI	<i>C – Threshold</i>		INTEGER(0..620)	0: 0 dB 1: 0.15 dB 2: 0.24 dB ... 620: 6234dB
Transmitted Carrier Power	<i>C – Threshold</i>		INTEGER(0..100)	According to mapping in 25.215/25.225
Acknowledged RA tries	<i>C – Threshold</i>		INTEGER(0..240,...)	The number of L1 acknowledged random access tries per every 20 ms period.
Timeslot ISCP	<i>C – Threshold</i>		INTEGER(0..80)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 80: 40dB
SIR	<i>C – Threshold</i>		INTEGER(0..62)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 62: 31dB
SIR Error	<i>C – Threshold</i>		INTEGER(0..124)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 124: 62 dB
Transmitted Code Power	<i>C – Threshold</i>		INTEGER(0..112,...)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 112: 56 dB
RSCP	<i>C – Threshold</i>		INTEGER(0..80)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 80: 40dB

Condition	Explanation
<i>Threshold</i>	Only one measurement threshold can be present at the same time.

## 9.3.4 NBAP Information Elements

```

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

..Text omitted..

-- =====
-- R
-- =====

RACH-SlotFormat ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    ...
}

RACH-SubChannelNumbers ::= BIT STRING (SIZE (12))
-- Bit 0=Sub Channel Number 0, Bit 1=Sub Channel Number 1, .., Bit 11=Sub Channel Number 11

RepetitionLength ::= INTEGER (1..63)

RepetitionPeriod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    v16,
    v32,
    v64,
    ...
}

RepetitionNumber ::= INTEGER (0..255)

ReftFCNumber ::= INTEGER (0..15)

ReportCharacteristics ::= CHOICE {
    onDemand          NULL,
    periodic          ReportCharacteristicsType-ReportPeriodicity,
    event-a           ReportCharacteristicsType-EventA,
    event-b           ReportCharacteristicsType-EventB,
    event-c           ReportCharacteristicsType-EventC,
    event-d           ReportCharacteristicsType-EventD,
    event-e           ReportCharacteristicsType-EventE,
    event-f           ReportCharacteristicsType-EventF,
}

```

```

}
...
}
ReportCharacteristicsType-EventA ::= SEQUENCE {
  measurementThreshold      ReportCharacteristicsType-MeasurementThreshold,
  measurementHysteresisTime ReportCharacteristicsType-ScaledMeasurementHysteresisTime OPTIONAL,
  iE-Extensions             ProtocolExtensionContainer { { ReportCharacteristicsType-EventA-ExtIEs } } OPTIONAL,
  ...
}

ReportCharacteristicsType-EventA-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

ReportCharacteristicsType-EventB ::= SEQUENCE {
  measurementThreshold      ReportCharacteristicsType-MeasurementThreshold,
  measurementHysteresisTime ReportCharacteristicsType-ScaledMeasurementHysteresisTime OPTIONAL,
  iE-Extensions             ProtocolExtensionContainer { { ReportCharacteristicsType-EventB-ExtIEs } } OPTIONAL,
  ...
}

ReportCharacteristicsType-EventB-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

ReportCharacteristicsType-EventC ::= SEQUENCE {
  measurementIncreaseThreshold ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
  measurementChangeTime       ReportCharacteristicsType-ScaledMeasurementChangeTime,
  iE-Extensions                ProtocolExtensionContainer { { ReportCharacteristicsType-EventC-ExtIEs } } OPTIONAL,
  ...
}

ReportCharacteristicsType-EventC-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

ReportCharacteristicsType-EventD ::= SEQUENCE {
  measurementDecreaseThreshold ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
  measurementChangeTime       ReportCharacteristicsType-ScaledMeasurementChangeTime,
  iE-Extensions                ProtocolExtensionContainer { { ReportCharacteristicsType-EventD-ExtIEs } } OPTIONAL,
  ...
}

ReportCharacteristicsType-EventD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

ReportCharacteristicsType-EventE ::= SEQUENCE {
  measurementThreshold1      ReportCharacteristicsType-MeasurementThreshold,
  measurementThreshold2      ReportCharacteristicsType-MeasurementThreshold OPTIONAL,
  measurementHysteresisTime  ReportCharacteristicsType-ScaledMeasurementHysteresisTime OPTIONAL,
  reportPeriodicity          ReportCharacteristicsType-ReportPeriodicity OPTIONAL,
  iE-Extensions              ProtocolExtensionContainer { { ReportCharacteristicsType-EventE-ExtIEs } } OPTIONAL,
  ...
}

```



```

}
ReportCharacteristicsType-EventE-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
ReportCharacteristicsType-EventF ::= SEQUENCE {
  measurementThreshold1      ReportCharacteristicsType-MeasurementThreshold,
  measurementThreshold2      ReportCharacteristicsType-MeasurementThreshold      OPTIONAL,
  measurementHysteresisTime   ReportCharacteristicsType-ScaledMeasurementHysteresisTime  OPTIONAL,
  reportPeriodicity           ReportCharacteristicsType-ReportPeriodicity      OPTIONAL,
  iE-Extensions               ProtocolExtensionContainer { { ReportCharacteristicsType-EventF-ExtIEs } }      OPTIONAL,
  ...
}
ReportCharacteristicsType-EventF-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold ::= CHOICE {
  rssi                        RSSI-Value-IncrDecrThres,
  transmitted-carrier-power   Transmitted-Carrier-Power-Value,
  acknowledged-ra-tries      Acknowledged-RA-Tries-Value,
  timeslot-iscp               TimeSlot-ISCP-Value-IncrDecrThres,
  sir                          SIR-Value-IncrDecrThres,
  sir-error                   SIR-Error-Value-IncrDecrThres,
  transmitted-code-power      Transmitted-Code-Power-Value-IncrDecrThres,
  rscp                         RSCP-Value-IncrDecrThres,
  ...
}
ReportCharacteristicsType-MeasurementThreshold ::= CHOICE {
  rssi                        RSSI-Value,
  transmitted-carrier-power   Transmitted-Carrier-Power-Value,
  acknowledged-ra-tries      Acknowledged-RA-Tries-Value,
  timeslot-iscp               TimeSlot-ISCP-Value,
  sir                          SIR-Value,
  sir-error                   SIR-Error-Value,
  transmitted-code-power      Transmitted-Code-Power-Value,
  rscp                         RSCP-Value,
  ...
}
ReportCharacteristicsType-ScaledMeasurementChangeTime ::= INTEGER (1..600)
-- ReportCharacteristicsType-MeasurementChangeTime = Time * 10
-- Unit ms, Range 10ms .. 6000ms(1min), Step 10ms
ReportCharacteristicsType-ScaledMeasurementHysteresisTime ::= INTEGER (1..600)
-- ReportCharacteristicsType-MeasurementHysteresisTime = Time * 10
-- Unit ms, Range 10ms .. 6000ms(1min), Step 10ms
ReportCharacteristicsType-ReportPeriodicity ::= CHOICE {
  msec                        ReportPeriodicity-Scaledmsec,
  min                          ReportPeriodicity-Scaledmin
}

```

```

}

ReportPeriodicity-Scaledmsec ::= INTEGER (1..600)
-- ReportPeriodicity-msec = ReportPeriodicity * 10
-- Unit ms, Range 10ms .. 6000ms(1min), Step 10ms

ReportPeriodicity-Scaledmin ::= INTEGER (1..60)
-- Unit min, Range 1min .. 60min(hour), Step 1min

ResourceOperationalState ::= ENUMERATED {
    enabled,
    disabled,
    ...
}

LimitedPowerIncrease ::= ENUMERATED {
    used,
    not-used
}

RL-ID ::= INTEGER (0..31)

RL-Set-ID          ::= INTEGER (0..31)

RSCP-Value ::= INTEGER (0..81)
-- According to mapping in 25.225

RSCP-Value-IncrDecrThres ::= INTEGER (0..80)

| RSSI-Value ::= INTEGER(0..6213)
-- According to mapping in 25.215/25.225

| RSSI-Value-IncrDecrThres ::= INTEGER (0..620)

-- =====
-- S
-- =====

ScaledMaxAdjustmentPeriod          ::= INTEGER(1..50)
-- MaxAdjustmentPeriod (slots) = 10 * ScaledMaxAdjustmentPeriod

ScaledMaxAdjustmentStep            ::= INTEGER(1..10)
-- MaxAdjustmentStep (dB) = ScaledMaxAdjustmentStep / 10

```



with an appropriate cause value. This is clearly stated in the unsuccessful operation of the RL Setup/Addition procedures..

**Clauses affected:** 8.2.17, 8.3.1, 9.2.1.6, 9.3.4

**Other specs affected:**

Other 3G core specifications	<input type="checkbox"/>	→ List of CRs:
Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:
MS test specifications	<input type="checkbox"/>	→ List of CRs:
BSS test specifications	<input type="checkbox"/>	→ List of CRs:
O&M specifications	<input type="checkbox"/>	→ List of CRs:

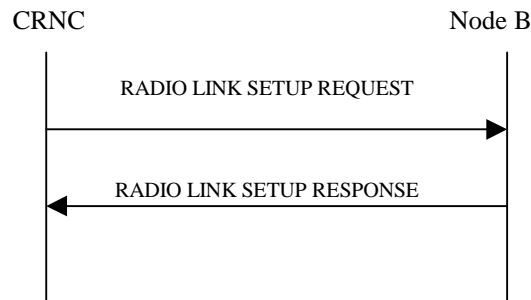
**Other comments:**

## 8.2.17 Radio Link Setup

### 8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B.

### 8.2.17.2 Successful Operation



**Figure 1: Radio Link Setup procedure: Successful Operation**

The procedure is initiated with a RADIO LINK SETUP REQUEST message sent from the CRNC to Node B.

Upon reception of RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

[FDD – The RL Setup procedure can be used to setup one or more radio links. The procedure shall include the establishment of one or more DCHs on all radio links, and in addition, it can include the establishment of one or more DSCHs on one radio link.]

[TDD – The RL Setup procedure is used for setup of one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs. The Radio Link Setup Request message shall include the required TFS and TFCS for the DCH, DSCH and USCH channels.]

[FDD - The *Diversity Control Field* IE indicates for each RL (except the first RL in the message) whether the Node B shall combine the concerned RL or not. If the *Diversity Control Field* IE indicates, "may be combined with already existing RLs", then Node B shall decide for either of the alternatives. If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other RL. Diversity combining is applied to Dedicated Transport Channels (DCH), i.e. it is not applied to the DSCHs. When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.]

If the RADIO LINK SETUP REQUEST message includes the *DCH Combination Indicator* IE for a DCH to be added, the Node B shall

- Treat all DCHs with the same value of this IE as a set of co-ordinated DCHs and
- Include this DCH in the new configuration only if it can include all DCHs with the same value of the *DCH Combination Indicator* IE in the new configuration

[FDD - For DCHs with a unique or no "DCH Combination Ind" and the *QE-Selector* IE set to "selected DCH", 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. [25.427]. If the *QE-Selector* is set to "non-selected DCH", the Physical channel BER shall be used for the QE in the UL data frames, ref. [25.427]].

[FDD - For DCHs with the same "DCH Combination Ind" the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected DCH" shall be used for the QE in the UL data frames, ref. [25.427]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [25.427]. If all DCHs have *QE-Selector* IE set to "non-selected DCH" the Physical channel BER shall be used for the QE, ref. [25.427]].

The received *Frame Handling Priority* IE specified for each Transport Channel should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new configuration has been activated.

[FDD - If the *Propagation Delay* IE is included, the Node B may use this information to speed up the detection of L1 synchronisation.]

[FDD - The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control.]

The Node B shall start the DL transmission using the initial DL power specified in the message. The DL power can then vary accordingly to the fast power control, but shall always be kept within the maximum and minimum limit specified in the RL SETUP REQUEST message.

If the DSCH Information Group is present, the Node B shall configure the new DSCH(s) according to the parameters given in the message.

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B 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 Node B Communication context.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another RL, the Node B 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 Node B Communication context.]

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B 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 Node B Communication context.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another RL, the Node B 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 Node B Communication context.]

[TDD -If the USCH Information Group is present, the Node B shall configure the new USCH(s) according to the parameters given in the message. ]

If the RLs are successfully setup, the Node B shall start reception on the new RL(s) and respond with a RADIO LINK SETUP RESPONSE message.

[FDD - The Node B shall indicate with the *Diversity Indication* IE whether the RL is combined or not. In case of combining, only the *Reference RL ID* IE shall be included to indicate one of the existing RLs that the concerned RL is combined with. In case of not combining the Node B shall include in the RL SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

[TDD – The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DSCH of this RL.

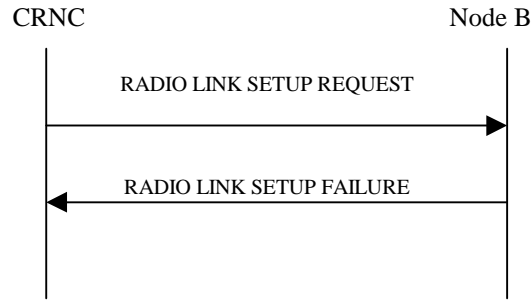
[TDD – The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each USCH of this RL.]

In case of coordinated DCH, the *Binding ID* IE and the *Transport Layer Address* IE shall be specify for only one of the coordinated DCHs.

After sending of the RADIO LINK SETUP RESPONSE message the Node B shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The Node B shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in 25.427.

[FDD – When *Diversity Mode* IE is “*STTD*”, “*Closedloop mode1*”, or “*Closedloop mode2*”, the DRNC shall activate/deactivate the Transmit Diversity to each Radio Link in accordance with *Transmit Diversity Indication* IE]

### 8.2.17.3 Unsuccessful Operation



**Figure 2: Radio Link Setup procedure: Unsuccessful Operation**

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK SETUP FAILURE message. The message contains the failure cause in the *Cause* IE.

If some radio links were established successfully, the Node B shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.

[FDD - If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to “selected DCH” the DRNS shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message]

[FDD - If the value of the *Diversity Control Field* IE of one RL is 'Must', but the Node B cannot perform the requested combining, Node B shall indicate this with the cause value 'Combining Resources not available' in the RADIO LINK SETUP FAILURE message].

Typical cause values are as follows:

#### Radio Network Layer Cause

- \_\_\_\_\_ RL Already Activated/allocated
- \_\_\_\_\_ Combining Resources not available

#### Transport Layer Cause

- Transport Resources Unavailable

#### Protocol Cause

- Semantic error

#### Miscellaneous Cause

- O&M Intervention
- Unspecified
- Control processing overload
- HW failure

### 8.2.17.4 Abnormal Conditions

-

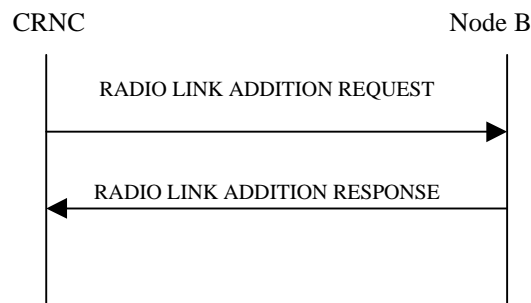
## 8.3.1 Radio Link Addition

### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the Node B for one or more additional RLs towards a UE when there is already a Node B communication context for this UE in the Node B.

The Radio Link Addition procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

### 8.3.1.2 Successful Operation



**Figure: 28 Radio Link Addition procedure: Successful Operation**

The procedure is initiated with a RADIO LINK ADDITION REQUEST message sent from the CRNC to the Node B.

Upon reception, the Node B 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 *Diversity Control Field* IE indicates for each RL whether the Node B shall combine the new RL with existing RL(s) or not. If the *Diversity Control Field* IE indicates, "may be combined with already existing RLs", then Node B shall decide for any of the alternatives. If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other RL. When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.

If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL Channelisation Code of the RL when starting transmission. If no *Initial DL Transmission power* IE is included, the Node B shall use any transmission power level currently used on already existing RL's for this UE.

If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL power* IE, the Node B shall store this value and never transmit with a higher power on any DL Channelisation Code of the RL. If no *Maximum DL power* IE is included, any Maximum DL power stored for already existing RLs for this UE shall be applied.

If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL power* IE, the Node B shall store this value and never transmit with a lower power on any DL Channelisation Code of the RL. If no *Minimum DL power* IE is included, any Minimum DL power stored for already existing RLs for this UE shall be applied.

[FDD - If the RADIO LINK ADDITION REQUEST message contains an *SSDT Cell Identity* IE the Node B may activate SSDT for the concerned new RL , with the indicated cell identity used for that RL.]

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

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the Node B 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 Node B Communication context.]

[FDD – For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the Node B 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 Node B Communication context.]



In the case of combining an RL with existing RL(s) the Node B shall indicate in the RADIO LINK ADDITION RESPONSE message with the Diversity Indication 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.

In the case of not combining an RL with existing RL(s), the Node B shall indicate in the RADIO LINK ADDITION RESPONSE message with the Diversity Indication that no combining is done. In this case the Node B shall include both the Transport Layer Address and the binding ID for the transport bearer to be established for each DCH of the RL in the RADIO LINK ADDITION RESPONSE message.

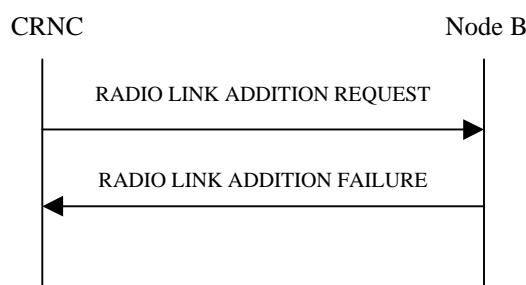
In case of coordinated DCH, the binding ID and the transport address shall be included for only one of the coordinated DCHs.

[FDD - Irrespective of SSdT activation, the Node B shall include in the RADIO LINK ADDITION RESPONSE message an indication concerning the capability to support SSdT on this RL. Only if the RADIO LINK ADDITION REQUEST message requested SSdT activation and the RADIO LINK ADDITION RESPONSE message indicates that the SSdT capability is supported for this RL, SSdT is activated in the Node B.]

After sending of the RADIO LINK ADDITION RESPONSE message the Node B shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The Node B shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in 25.427.

[FDD – When *Diversity Mode* IE is “STTD”, “Closedloop mode1”, or “Closedloop mode2”, the DRNC shall activate/deactivate the Transmit Diversity to each Radio Link in accordance with *Transmit Diversity Indication* IE]

### 8.3.1.3 Unsuccessful Operation



**Figure 29: Radio Link Addition procedure: Unsuccessful Operation**

If some RL(s) were established successfully, the Node B shall indicate this in the RADIO LINK ADDITION FAILURE message in the same way as in the RADIO LINK ADDITION RESPONSE message.

If the value of the *Diversity Control Field* IE of one RL is 'Must', but the Node B cannot perform the requested combining, Node B shall indicate this with the cause value 'Combining Resources not available' in the RADIO LINK ADDITION FAILURE message.

Typical cause values are as follows:

#### Radio Network Layer Cause

- \_\_\_\_\_RL Already Activated/allocated
- \_\_\_\_\_Combining Resources not available

#### Transport Layer Cause

- Transport Resources Unavailable

#### Protocol Cause

- Semantic error

#### Miscellaneous Cause

- O&M Intervention
- Unspecified

- Control processing overload
- HW failure

#### 8.3.1.4 Abnormal conditions

-

## 9.2.1.6 Cause

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, RL Already Activated/allocated, Node B Resources Unavailable, Insufficient physical channel resources, Measurement not supported for the object, <u>Combining Resources not available</u> , <u>Macrodiversity combining not possible</u> , Reconfiguration not allowed, Requested configuration not supported, Synchronization failure, Priority transport channel established, SIB Origination in Node B not Supported, Unspecified)	
>Transport Layer				
>Transport Layer Cause	M		Enumerated (Transport link failure, Transmission port not available, Transport resource unavailable, Unspecified)	
>Protocol				
>Protocol Cause			Enumerated (Transaction not allowed, Transfer syntax error, Abstract syntax error (reject), Abstract syntax error (ignore and notify), Message not compatible with receiver state, Semantic error, Unspecified)	
>Misc				
>Miscellaneous Cause	M		Enumerated (Control processing overload Hardware failure, O&M intervention, Not enough user plane processing resources, Unspecified)	

## 9.3.4 NBAP Information Elements

```

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

....

CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-scramblingcode-already-in-use,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    rl-already-ActivatedOrAllocated,
    nodeB-Resources-unavailable,
    insufficient-physical-channel-resources,
    measurement-not-supported-for-the-object,
    macrodiversity-combining-resources-not-availablepossible,
    reconfiguration-not-allowed,
    requested-configuration-not-supported,
    synchronisation-failure,
    sIB-Origination-in-Node-B-not-Supported,
    unspecified,
    priority-transport-channel-established,
    ...
}

```





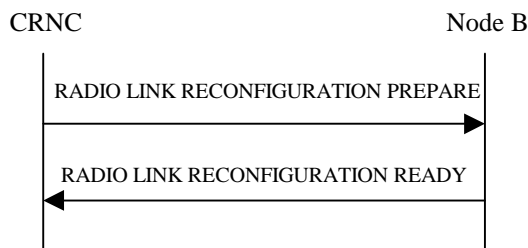
## 8.3.2 Synchronised Radio Link Reconfiguration Preparation

### 8.3.2.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of all Radio Links related to one UE-UTRAN connection within a Node B.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

### 8.3.2.2 Successful Operation



**Figure 30: Synchronised Radio Link Reconfiguration procedure, Successful Operation**

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the CRNC by sending the message RADIO LINK RECONFIGURATION PREPARE to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B 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.

#### **DCH Modification:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Frame Handling Priority* IE for a DCH to be modified, the Node B 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 Node B once the new configuration has been activated.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Format Set* IE for the UL of a DCH to be modified, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Format Set* IE for the DL of a DCH to be modified, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *UL FP Mode* IE for a DCH to be modified, the Node B shall apply the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWS* IE for a DCH to be modified, the Node B shall apply the new ToAWS in the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWE* IE for a DCH to be modified, the Node B shall apply the new ToAWE in the user plane for this DCH in the new configuration.

#### **DCH Addition:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be added to the Radio Link(s), the Node B 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 RADIO LINK RECONFIGURATION PREPARE message includes the *DCH Combination Indicator* IE for a DCH to be added, the Node B shall.

1. treat all DCHs with the same value of this IE as a set of coordinated DCHs and
2. include this DCH in the new configuration only if it can include all DCHs with the same value of the *DCH Combination Indicator* IE in the new configuration

[FDD - For DCHs with a unique or no “DCH Combination Ind” and the *QE-Selector* IE set to “selected DCH”, 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. [25.427]. If the QE-Selector is set to “non-selected DCH”, the Physical channel BER shall be used for the QE in the UL data frames, ref. [25.427]].

[FDD - For DCHs with the same “DCH Combination Ind” the Transport channel BER from the DCH with the *QE-Selector* IE set to “selected DCH” shall be used for the QE in the UL data frames, ref. [25.427]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [25.427]. If all DCHs have *QE-Selector* IE set to “non-selected DCH” the Physical channel BER shall be used for the QE, ref. [25.427]].

The Node B 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 Node B once the new configuration has been activated.

The Node B shall use the included *UL FP Mode* IE for a DCH to be added as the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

The Node B shall use the included *ToAWS* IE for a DCH to be added as the new Time of Arrival Window Start Point in the user plane for this DCH in the new configuration.

The Node B shall use the included *ToAWE* IE for a DCH to be added as the new Time of Arrival Window End Point in the user plane for this DCH in the new configuration.

#### **DCH Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be deleted from the Radio Link(s), the Node B shall not include this DCH in the new configuration.

If of all the DCHs belonging to a set of coordinated DCHs are requested to be deleted, the Node B shall not include this set of coordinated DCHs in the new configuration.

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

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Uplink Scrambling Code* IE, the Node B shall apply this Uplink Scrambling Code to the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *Uplink Channelisation Code* IEs, the Node B shall apply the new Uplink Channelisation Code(s) in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *Downlink Channelisation Code* IEs, the Node B shall apply the new Downlink Channelisation Code(s) in the new configuration.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *UL DPCH Information* IE groups, the Node B shall apply the new UL physical channel(s) setting in the new configuration.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *DL DPCH Information* IE groups, the Node B shall apply the new physical channel(s) setting in the new configuration.]

The Node B shall use the *TFCS* IE for the UL when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the Uplink of [TDD – the CCTrCH of] the new configuration.

The Node B shall use the *TFCS* IE for the DL when reserving resources for the downlink of the new configuration. The Node B shall apply the new TFCS in the Downlink of [TDD – the CCTrCH of] the new configuration.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes on the *UL DPCCCH Structure* IE, group the Node B shall set the new Uplink DPCCCH Structure to the new configuration.]

If the RADIO LINK RECONFIGURATION PREPARE includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a higher power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.



[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *UL SIR Target* IE, the Node B shall set the UL inner loop power control to the UL SIR target when the new configuration is being used.]

If the RADIO LINK RECONFIGURATION PREPARE includes the *Minimum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a lower power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Limited Power Increase IE* and the IE is set to 'Used', the Node B shall use Limited Power Increase ref. [10] section 5.2.1 for the inner loop DL power control in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Limited Power Increase IE* and the IE is set to 'Not Used', the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

#### **SSDT Activation/Deactivation:**

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SSDT Indication* IE set to "SSDT Active in the UE", the Node B may activate SSDT using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SSDT Indication* IE set to "SSDT not Active in the UE", the Node B shall deactivate SSDT in the new configuration.]

#### **DSCH [TDD – and/or USCH] Addition/Modification/Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes DSCH information for the DSCHs to be added/modified/deleted then the Node B 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. The Node B shall include in the RADIO LINK RECONFIGURATION READY message the Transport Layer Address and the Binding ID of the DSCHs being added or modified.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *PDSCH code mapping* IE then the Node B shall apply the defined mapping between TFCI values and PDSCH channelisation codes. ]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *PDSCH RL ID* IE then the Node B shall infer that the PDSCH for the specified user will be transmitted on the defined radio link.]

#### **[TDD - USCH Addition/Modification/Deletion:]**

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes USCH information for the USCHs to be added/modified/deleted then the NodeB 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. – It shall include in the RADIO LINK RECONFIGURATION READY message the Transport Layer Address and the Binding ID of the USCHs being added or modified.]

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

In case of a set of coordinated DCHs requiring a new transport bearer on Iub DCH-to-be-added group or DCH-to-be-modified group shall be included only for one of the DCH in the set of coordinated DCHs.

In case of a Radio Link being combined with another Radio Link within the Node B, the RL Information Response IE group shall be included only for one of the combined RLs.

## 8.3.5 Unsynchronised Radio Link Reconfiguration

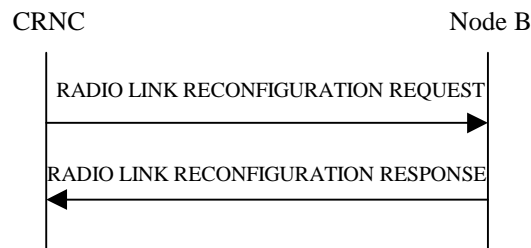
### 8.3.5.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a Node B.

The Unsynchronised RL Reconfiguration procedure is used when there is no need to synchronise the time of the switching from the old to the new configuration in one Node B used for a UE-UTRAN connection with any other Node B also used for the UE –UTRAN connection.

The Unsynchronised Radio Link Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

### 8.3.5.2 Successful Operation



**Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation**

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the CRNC by sending the message RADIO LINK RECONFIGURATION REQUEST to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B 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.

#### **DCH Modification:**

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *Frame Handling Priority* IE for a DCH to be modified, the Node B 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 Node B once the new configuration has been activated.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Format Set* IE for the UL of a DCH to be modified, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Format Set* IE for the DL a DCH to be modified, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *UL FP Mode* IE for a DCH to be modified, the Node B shall apply the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *ToAWS* IE for a DCH to be modified, the Node B shall apply the new ToAWS in the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *ToAWE* IE for a DCH to be modified, the Node B shall apply the new ToAWE in the user plane for this DCH in the new configuration.

#### **DCH Addition:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be added to the Radio Link(s), the Node B 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 RADIO LINK RECONFIGURATION REQUEST message includes the *DCH Combination Indicator* IE for a DCH to be added, the Node B shall.

1. Treat all DCHs with the same value of this IE as a set of coordinated DCHs and
2. Include this DCH in the new configuration only if it can include all DCHs with the same value of the *DCH Combination Indicator* IE in the new configuration.

[FDD - For DCHs with a unique or no "DCH Combination Ind" and the *QE-Selector* IE set to "selected DCH", 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. [25.427]. If the *QE-Selector* is set to "non-selected DCH", the Physical channel BER shall be used for the QE in the UL data frames, ref. [25.427]].

[FDD - For DCHs with the same "DCH Combination Ind" the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected DCH" shall be used for the QE in the UL data frames, ref. [25.427]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [25.427]. If all DCHs have *QE-Selector* IE set to "non-selected DCH" the Physical channel BER shall be used for the QE, ref. [25.427]].

The Node B 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 Node B once the new configuration has been activated.

The Node B shall use the included *UL FP Mode* IE for a DCH to be added as the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

The Node B shall use the included *ToAWS* IE for a DCH to be added as the new Time of Arrival Window Start Point in the user plane for this DCH in the new configuration.

The Node B shall use the included *ToAWE* IE for a DCH to be added as the new Time of Arrival Window End Point in the user plane for this DCH in the new configuration.

#### **DCH Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be deleted from the Radio Link(s), the Node B shall not include this DCH in the new configuration.

If of all the DCHs belonging to a set of coordinated DCHs are requested to be deleted, the Node B shall not include this set of coordinated DCHs in the new configuration.

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

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *TFCS (UL)* IE, the Node B shall apply the new TFCS in the Uplink of [TDD – the CCTrCH of] the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *TFCS (DL)* IE, the Node B shall apply the new TFCS in the Downlink of [TDD – the CCTrCH of] the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a higher power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.

If the RADIO LINK RECONFIGURATION REQUEST includes the *Minimum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a lower power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Limited Power Increase* IE and the IE is set to 'Used', the Node B shall use Limited Power Increase ref. [10] section 5.2.1 for the inner loop DL power control in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Limited Power Increase* IE and the IE is set to 'Not Used', the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

#### **DSCH [TDD – and/or USCH] Addition/Modification/Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes DSCH information for the DSCHs to be added/modified/deleted then the NodeB 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. The Node B shall include in the RADIO LINK RECONFIGURATION RESPONSE message the Transport Layer Address and the Binding ID of the DSCHs being added or modified.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *PDSCH code mapping* IE then the Node B shall apply the defined mapping between TFCI values and PDSCH channelisation codes. ]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *PDSCH RL ID* IE then the Node B shall infer that the PDSCH for the specified user will be transmitted on the defined radio link.]

**[TDD - USCH Addition/Modification/Deletion:]**

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes USCH information for the USCHs to be added/modified/deleted then the NodeB 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. – It shall include in the RADIO LINK RECONFIGURATION RESPONSE message the Transport Layer Address and the Binding ID of the USCHs being added or modified.]

If the requested modifications are allowed by the Node B, the Node B has successfully allocated the required resources, and changed to the new configuration it shall respond to the CRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

In case of a set of coordinated DCHs requiring a new transport bearer on Iub, the DCH-to-be-added group or DCH-to-be-modified group shall be included for one of the DCH in the set of coordinated DCHs.

In case of a Radio Link being combined with another Radio Link within the Node B, RL Information Response IE group shall be included only for one of the combined Radio Links.

## 9.1.35 RADIO LINK SETUP REQUEST

## 9.1.35.1 FDD message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
CRNC Communication Context ID	M				YES	reject
Transaction ID	M				–	
<b>UL DPCH Information</b>		1			YES	reject
>UL Scrambling Code	M				–	
>Min UL Channelisation Code length	M				–	
>Max Number of UL DPDCHs	C – CodeLen				–	
>puncture limit	M			For UL	–	
>TFCS	M			for UL	–	
>UL DPCCH Slot Format	M				–	
> UL SIR Target	M		UL SIR		–	
>Diversity mode	M				–	
>D Field Length	C – FB				–	
>SSDT cell ID Length	O				–	
>S Field Length	O				–	
<b>DL DPCH Information</b>					YES	reject
>TFCS	M			For DL	–	
>DL DPCH Slot Format	M				–	
>TFCI signalling mode	M				–	
>TFCI presence	C- SlotFormat				–	
>Multiplexing Position	M				–	
>PDSCH RL ID	C-DSCH		RL ID		–	
>PDSCH code mapping	C-DSCH				–	
<b>&gt;Power Offset Information</b>		1			–	
>>PO1	M		Power Offset	Power offset for the TFCI bits	–	
>>PO2	M		Power Offset	Power offset for the TPC bits	–	
>>PO3	M		Power Offset	Power offset for the pilot bits	–	
>FDD TPC DL Step Size	M				–	
>Limited Power Increase	<u>M</u>				<u>–</u>	
<b>DCH Information</b>		1 to <maxnoof DCHs>			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	<del>M</del>				–	
>Transport Format Set	M			For UL	–	
>Transport Format Set	M			For DL	–	
>Frame Handling Priority	M				–	
>Payload CRC Presence Indicator	M				–	

>UL FP mode	M				–	
>QE-Selector	M					
>ToAWS	M				–	
>ToAWE	M				–	
<b>DSCH Information</b>		0 to <maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M				–	
>Transport Format Set	M			For DSCH	–	
>Frame handling Priority	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
<b>RL Information</b>		1 to <maxnoof RLs>			EACH	notify
>RL ID	M				–	
>C-ID	M				–	
>Frame Offset	M				–	
>Chip Offset	M				–	
>Propagation Delay	O				–	
>Diversity Control Field	C – NotFirstRL				–	
<b>&gt;DL Code Information</b>		1 to <maxnoof- DLCodes			–	
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	
>Initial DL transmission Power	M		DL Power		–	
>Maximum DL power	M		DL Power		–	
>Minimum DL power	M		DL Power		–	
>SSDT Cell Identity	O				–	
>Transmit Diversity Indicator	C – Diversity mode					

Condition	Explanation
CodeLen	This IE is present only if "Min UL Channelisation Code length" equals to 4
FB	This IE is present only if Feed Back mode diversity is activated.
NotFirstRL	This IE is present only if the RL is not the first one in the RL Information.
DSCH	This IE is present only if the DSCH Information group is present
SlotFormat	This IE is only present if the DL DPCH slot format is equal to any of the value 12 to 16.
Diversity mode	This IE is present unless <i>Diversity Mode</i> IE in <i>UL DPCH Information</i> group is "none"

Range bound	Explanation
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDLCodes	Maximum number of DL code information.

## 9.1.35.2 TDD message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
CRNC Communication Context ID	M				YES	reject
Transaction ID	M				–	
<b>UL CCTrCH Information</b>		0 to <maxno CCTrCH>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	M				–	
>TFCI Coding	M				–	
>Puncture Limit	M				–	
<b>UL DPCH Information</b>		0 to <maxnoOf DPCH>			GLOBAL	notify
>DPCH ID	M				–	
>TDD Channelisation Code	M				–	
>Burst Type	M				–	
>Midamble Shift	M				–	
>Time Slot	M				–	
>TDD Physical Channel Offset	M				–	
>Repetition Period	M				–	
>Repetition Length	M				–	
>TFCI Presence	M				–	
<b>DL CCTrCH Information</b>		0 to <maxno CCTrCH>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	M				–	
>TFCI Coding	M				–	
>Puncture Limit	M				–	
>TDD TPC DL Step Size	M				–	
<b>DL DPCH information</b>		0 to <maxnoOf DPCH>			GLOBAL	notify
>DPCH ID	M				–	
>TDD Channelisation Code	M				–	
>Burst Type	M				–	
>Midamble Shift	M				–	
>Time Slot	M				–	
>TDD Physical Channel Offset	M				–	
>Repetition Period	M				–	
>Repetition Length	M				–	
>TFCI Presence	M				–	
<b>DCH Information</b>		0 to <maxnoof DCHs>			GLOBAL	reject
>DCH ID	M				–	
>Limited Power Increase	M				–	
>CCTrCH ID	M			UL CCTrCH in which the	–	

				DCH is mapped		
>CCTrCH ID	M			DL CCTrCH in which the DCH is mapped	–	
>DCH Combination Ind	O				–	
>Transport Format Set	M			For UL	–	
>Transport Format Set	M			For DL	–	
>Frame Handling Priority	O				–	
>Payload CRC Presence Indicator	M				–	
>UL FP mode	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
<b>DSCH Information</b>		0 to <Maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M				–	
>CCTrCH ID	M			DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	M			For DSCH	–	
>Frame handling Priority	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
<b>USCH Information</b>		0 to <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M			For USCH	–	
<b>RL Information</b>		1			YES	reject
>RL ID	M				–	
>C-ID	M				–	
>Frame Offset	M				–	
>Initial DL transmission Power	M		DL Power		–	
>Maximum DL power	M		DL Power		–	
>Minimum DL power	M		DL Power		–	

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for one UE
maxnoOfDPCH	Maximum number of DPCH in one CCTrCH
maxnoCCTrCH	Number of CCTrCH for one UE.
MaxnoofDSCHs	Maximum number of DSCH for one UE
MaxnoofUSCHs	Maximum number of USCH for one UE



## 9.1.41 RADIO LINK RECONFIGURATION PREPARE

## 9.1.41.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context ID	M				YES	reject
Transaction ID	M				–	
<b>UL DPCH Information</b>		0..1			YES	reject
>UL Scrambling code	O				–	
>UL SIR Target	O		UL SIR			
>Min UL Channelisation Code Length	O				–	
>Max Number of UL DPDCHs	C – CodeLen				–	
>Puncture Limit	O			For UL	–	
>TFCS	O				–	
>UL DPCCH Slot Format	O				–	
>SSDT Cell Identity Length	O				–	
>S-Field Length	O				–	
<b>DL DPCH Information</b>		0..1			YES	reject
>TFCS	O				–	
>DL DPCH Slot Format	O				–	
>TFCI Signalling Mode	O				–	
>TFCI presence	C-Slot Format				–	
>Multiplexing Position	O				–	
>PDSCH code mapping	O					
>PDSCH RL ID	O		RL ID			
>Limited Power Increase	<u>O</u>				<u>–</u>	
<b>DCHs to Modify</b>		0..<max noofDC Hs>			GLOBAL	reject
>DCH ID	M				–	
>Transport Format Set	O			For the UL.	–	
>Transport Format Set	O			For the DL.	–	
>Frame Handling Priority	O				–	
>UL FP Mode	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
<b>DCHs to Add</b>		0..<max noofDC Hs>			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	<u>M</u>				–	
>Transport Format Set	M			For the UL.	–	
>Transport Format Set	M			For the DL.	–	
>Frame Handling Priority	M				–	
>Payload CRC Presence Indicator	M				–	
>UL FP Mode	M				–	
>QE-Selector	M					
>ToAWS	M				–	

>ToAWE	M				–	
<b>DCHs to Delete</b>		<i>0..&lt;max noofDCHs&gt;</i>			GLOBAL	reject
>DCH ID	M				–	
<b>DSCH to modify</b>		<i>0..&lt;max noofDSCHs&gt;</i>			YES	reject
>DSCH ID	M				–	
>Transport Format Set	O			For the DL.	–	
>Frame Handling Priority	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
<b>DSCH to add</b>		<i>0..&lt;max noofDSCHs&gt;</i>			YES	reject
>DSCH ID	M				–	
>Transport Format Set	M			For the DL.	–	
>Frame Handling Priority	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
<b>DSCH to Delete</b>		<i>0..&lt;max noofDSCHs&gt;</i>			YES	reject
>DSCH ID	M				–	
<b>RL Information</b>		<i>0..&lt;max noofRLs&gt;</i>			EACH	reject
>RL ID	M				–	
<b>&gt;DL Code Information</b>		<i>0..&lt;max noofDL Codes&gt;</i>			–	
>>DL Scrambling Code	O				–	
>>FDD DL Channelisation Code Number	O				–	
>Maximum DL Power	O		DL Power		–	
>Minimum DL Power	O		DL Power		–	
>SSDT Indication	O				–	
>SSDT Cell Identity	C – SSDTIndON				–	

Condition	Explanation
SSDTIndON	The IE may be present if the SSDT Indication is set to 'SSDT Active in the UE'.
CodeLen	This IE is present only if "Min UL Channelisation Code length" equals to 4.
SlotFormat	This IE is only present if the DL DPCH slot format is equal to any of the value 12 to 16.

Range Bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs for a UE.
<i>MaxnoofDSCHs</i>	Maximum number of DSCHs for a UE.
<i>MaxnoofRLs</i>	Maximum number of RLs for a UE.
<i>MaxnoofDL Codes</i>	Maximum number of Downlink Channelisation Codes.

## 9.1.41.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context ID	M				YES	reject
Transaction ID	M				–	
<b>UL CCTrCH Information</b>		0..<maxno of CCTrCHs>			GLOBAL	reject
>CCTrCH ID	M				–	
>TFCS	O				–	
>TFCI Coding	O				–	
>Puncture Limit	O				–	
<b>&gt;UL DPCH Information</b>		0..<maxno of DPCHs>			GLOBAL	reject
>>DPCH ID	M				–	
>>TDD Channelisation Code	O				–	
>>Burst Type	O				–	
>>Midamble Shift	O				–	
>>Time Slot	O				–	
>>TDD Physical channel Offset	O				–	
>>Repetition Period	O				–	
>>Repetition Length	O				–	
>>TFCI Presence	O				–	
<b>DL CCTrCH Information</b>		0..<maxno of CCTrCHs>			GLOBAL	reject
>CCTrCH ID	M				–	
>TFCS	O				–	
>TFCI Coding	O				–	
>PunctureLimit					–	
<b>&gt;DL DPCH Information</b>		0..<maxno of DPCHs>			GLOBAL	reject
>>DPCH ID	M				–	
>>TDD Channelisation Code	O				–	
>>Burst Type	O				–	
>>Midamble Shift	O				–	
>>Time Slot	O				–	
>>TDD Physical Channel Offset	O				–	
>>Repetition Period	O				–	
>>Repetition Length	O				–	
>>TFCI Presence	O				–	
<b>DCHs to Modify</b>		0..<max>			GLOBAL	reject

		<i>noofDC Hs&gt;</i>				
>DCH ID	M				-	
>CCTrCH ID	O			UL CCTrCH in which the DCH is mapped.	-	
>CCTrCH ID	O			DL CCTrCH in which the DCH is mapped	-	
>Transport Format Set	O			For the UL.	-	
>Transport Format Set	O			For the DL.	-	
>Frame Handling Priority	O				-	
>UL FP Mode	O				-	
>ToAWS	O				-	
>ToAWE	O				-	
<b>DCHs to Add</b>		<i>0..&lt;max noofDC Hs&gt;</i>			GLOBAL	reject
>DCH ID	M				-	
> <del>Limited Power Increase</del>	<del>M</del>				<del>-</del>	
>CCTrCH ID	M			UL CCTrCH in which the DCH is mapped.	-	
>CCTrCH ID	M			DL CCTrCH in which the DCH is mapped	-	
>DCH Combination Ind	O				-	
>Transport Format Set	M			For the UL.	-	
>Transport Format Set	M			For the DL.	-	
>Frame Handling Priority	M				-	
>Payload CRC Presence Indicator	M				-	
>UL FP Mode	M				-	
>ToAWS	M				-	
>ToAWE	M				-	
<b>DCHs to Delete</b>		<i>0..&lt;max noofDC Hs&gt;</i>			GLOBAL	reject
>DCH ID	M				-	
<b>DSCH Information to modify</b>		<i>0 .. &lt;Maxno of DSCHs &gt;</i>			GLOBAL	reject
>DSCH ID	M				-	
>CCTrCH ID	O			DL CCTrCH in which the DSCH is mapped	-	
>Transport Format Set	O				-	
>Frame handling Priority	O				-	
>ToAWS	O				-	
>ToAWE	O				-	
<b>DSCH Information to add</b>		<i>0 .. &lt;Maxno of DSCHs &gt;</i>			GLOBAL	reject
>DSCH ID	M				-	

>CCTrCH ID	M			DL CCTrCH in which the DSCH is mapped	-	
>Transport Format Set	M				-	
>Frame handling Priority	O				-	
>ToAWS	M				-	
>ToAWE	M				-	
<b>DSCH Information to delete</b>		0 .. <Maxno of DSCHs >			GLOBAL	reject
>DSCH ID	M				-	
<b>USCH Information to modify</b>		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				-	
>Transport Format Set	O				-	
>CCTrCH ID	O			UL CCTrCH in which the USCH is mapped	-	
<b>USCH Information to add</b>		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				-	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	-	
>Transport Format Set	M				-	
<b>USCH Information to delete</b>		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				-	
<b>RL Information</b>		0..1			YES	reject
>RL ID	M				-	
>Maximum Downlink Power	O		DL Power		-	
>Minimum Downlink Power	O		DL Power		-	

Range Bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs for a UE.
<i>MaxnoofCCTrCHs</i>	Maximum number of CCTrCHs for a UE.
<i>Maxnoof DPCHs</i>	Maximum number of DPCHs in one CCTrCH.
<i>MaxnoofDSCHs</i>	Maximum number of DSCHs for one UE
<i>MaxnoofUSCHs</i>	Maximum number of USCHs for one UE

## 9.1.46 RADIO LINK RECONFIGURATION REQUEST

## 9.1.46.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context ID	M				YES	reject
Transaction ID	M				–	
<b>UL DPCH Information</b>		0..1			YES	reject
>TFCS	O			For the UL.	–	
<b>DL DPCH Information</b>		0..1			YES	reject
>TFCS	O			For the DL.	–	
>TFCI Signalling Mode	O				–	
>PDSCH code mapping	O					
>PDSCH RL ID	O		RL ID			
>Limited Power Increase	<u>O</u>				<u>–</u>	
<b>DCHs to Modify</b>		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M				–	
>Transport Format Set	O			For the UL.	–	
>Transport Format Set	O			For the DL.	–	
>Frame Handling Priority	O				–	
>UL FP Mode	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
<b>DCHs to Add</b>		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	<u>M</u>				–	
>Transport Format Set	M			For the UL.	–	
>Transport Format Set	M			For the DL.	–	
>Frame Handling Priority	M				–	
>Payload CRC Presence Indicator	M				–	
>UL FP mode	M				–	
>QE-Selector	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
<b>DCHs to Delete</b>		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M				–	
<b>DSCH to Modify</b>		0..<maxn oofDSCH s>			YES	reject
>DSCH ID	M				–	
>Transport Format Set	O			For the DL.	–	
>Frame Handling Priority	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
<b>DSCH to Add</b>		0..<maxn oofDSCH			YES	reject

		<i>s</i> >				
>DSCH ID	M				–	
>Transport Format Set	M			For the DL.	–	
>Frame Handling Priority	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
<b>DSCH to Delete</b>		<i>0..1</i>			YES	reject
>DSCH ID	M				–	
<b>Radio Link Information</b>		<i>0..&lt;maxn oofRLs&gt;</i>			EACH	reject
>RL ID	M				–	
>Maximum DL Power	O		DL Power		–	
>Minimum DL Power	O		DL Power		–	

<b>Range Bound</b>	<b>Explanation</b>
<i>MaxnoofDCHs</i>	Maximum number of DCHs for a UE.
<i>MaxnoofDSCHs</i>	Maximum number of DSCHs for a UE.
<i>MaxnoofRLs</i>	Maximum number of RLs for a UE.

## 9.1.46.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context ID	M				YES	reject
Transaction ID	M				–	
<b>UL CCH Information</b>		<i>0..&lt;maxn oofCCHs&gt;</i>			EACH	notify
>CCH ID	M				–	
>TFCS	O				–	
>Puncture Limit	O				–	
<b>DL CCH Information</b>		<i>0..&lt;maxn oofCCHs&gt;</i>			EACH	notify
>CCH ID	M				–	
>TFCS	O				–	
>Puncture Limit	O				–	
<b>DCHs to Modify</b>		<i>0..&lt;maxn oofDCHs &gt;</i>			GLOBAL	reject
>DCH ID	M				–	
>CCH ID	O			UL CCH in which the DCH is mapped.	–	
>CCH ID	O			DL CCH in which the DCH is mapped	–	
>Transport Format Set	O			For the UL.	–	
>Transport Format Set	O			For the DL.	–	
>Frame Handling Priority	O				–	
>UL FP Mode	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
<b>DCHs to Add</b>		<i>0..&lt;maxn oofDCHs &gt;</i>			GLOBAL	reject
>DCH ID	M				–	
<del>&gt;Limited Power Increase</del>	<del>M</del>				<del>–</del>	
>CCH ID	M			UL CCH in which the DCH is mapped.	–	
>CCH ID	M			DL CCH in which the DCH is mapped	–	
>DCH Combination Ind	O				–	
>Transport Format Set	M			For the UL.	–	
>Transport Format Set	M			For the DL.	–	
>Frame Handling Priority	M				–	
>Payload CRC Presence Indicator	M				–	
>UL FP Mode	M				–	
>ToAWS	M				–	



>ToAWE	M				–	
<b>DCHs to Delete</b>		0..<maxn oofDSCH s>			GLOBAL	reject
>DCH ID	M				–	
<b>DSCH Information to modify</b>		0 .. <Maxnoo f DSCHs>			GLOBAL	reject
>DSCH ID	M				–	
>CCTrCH ID	O			DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	O				–	
>Frame handling Priority	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
<b>DSCH Information to add</b>		0 .. <Maxnoo f DSCHs>			GLOBAL	reject
>DSCH ID	M				–	
>CCTrCH ID	M			DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	M				–	
>Frame handling Priority	O				–	
>ToAWS	M				–	
>ToAWE	M				–	
<b>DSCH Information to delete</b>		0 .. <Maxnoo f DSCHs>			GLOBAL	reject
>DSCH ID	M				–	
<b>USCH Information to modify</b>		0 .. <Maxnoo f USCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	O			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	O				–	
<b>USCH Information to add</b>		0 .. <Maxnoo f USCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M				–	
<b>USCH Information to delete</b>		0 .. <Maxnoo f USCHs>			GLOBAL	reject
>USCH ID	M				–	
<b>RL Information</b>		0..1			YES	reject
>RL ID	M				–	

>Maximum Downlink Power	O		DL Power		-	
>Minimum Downlink Power	O		DL Power		-	

Range bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs for a UE.
<i>MaxnoofCCTrCHs</i>	Maximum number of CCTrCHs for a UE.
<i>MaxnoofDSCHs</i>	Maximum number of DSCHs for one UE
<i>MaxnoofUSCHs</i>	Maximum number of USCHs for one UE

### 9.3.3 NBAP PDU Content Definitions

.. Text omitted ..

```

-- *****
--
-- RADIO LINK SETUP REQUEST FDD
--
-- *****

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

RadioLinkSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-CRNC-CommunicationContextID          CRITICALITY reject          TYPE      CRNC-CommunicationContextID
    PRESENCE  mandatory }|
    { ID      id-UL-DPCH-Information-RL-SetupRqstFDD  CRITICALITY reject          TYPE      UL-DPCH-Information-RL-SetupRqstFDD
    PRESENCE  mandatory }|
    { ID      id-DL-DPCH-Information-RL-SetupRqstFDD  CRITICALITY reject          TYPE      DL-DPCH-Information-RL-SetupRqstFDD
    PRESENCE  mandatory }|
    { ID      id-DCH-InformationList-RL-SetupRqstFDD  CRITICALITY reject          TYPE      DCH-InformationList-RL-SetupRqstFDD
    PRESENCE  mandatory }|
    { ID      id-DSCH-InformationList-RL-SetupRqstFDD  CRITICALITY reject          TYPE      DSCH-InformationList-RL-SetupRqstFDD
    PRESENCE  optional }|
    { ID      id-RL-InformationList-RL-SetupRqstFDD   CRITICALITY notify          TYPE      RL-InformationList-RL-SetupRqstFDD
    PRESENCE  mandatory },
    ...
}

RadioLinkSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    ul-ScramblingCode          UL-ScramblingCode,
    minUL-ChannelisationCodeLength  MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPDCHs           MaxNrOfUL-DPDCHs          OPTIONAL,
    -- This IE is present only if "Min UL Channelisation Code length" equals to 4 --
    ul-PunctureLimit           PunctureLimit,
    tFCS                        TFCS,
    ul-DPCCH-SlotFormat        UL-DPCCH-SlotFormat,
    ul-SIR-Target              UL-SIR,
    diversityMode              DiversityMode,
    d-FieldLength              D-FieldLength          OPTIONAL,
    -- This IE is present only if Feed Back mode diversity is activated -- ,
    sSDT-CellID-Length         SSDT-CellID-Length    OPTIONAL,
    s-FieldLength              S-FieldLength          OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs } }    OPTIONAL,
    ...
}

```

```

}

UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    tFCS                                TFCS,
    dl-DPCH-SlotFormat                 DL-DPCH-SlotFormat,
    tFCI-SignallingMode                 TFCI-SignallingMode,
    tFCI-Presence                       TFCI-Presence OPTIONAL,
    -- this IE is only present if the DL DPCH slot format is equal to any of the value 12 to 16 --
    multiplexingPosition                MultiplexingPosition,
    pDSCH-RL-ID                         RL-ID OPTIONAL,
    -- This IE is present only if the DSCH Information group is present --
    pDSCH-CodeMapping                   PDSCH-CodeMapping OPTIONAL,
    -- This IE is present only if the DSCH Information group is present --
    powerOffsetInformation               PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-TPC-DownlinkStepSize            FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease                 LimitedPowerIncrease,
    iE-Extensions                       ProtocolExtensionContainer { { DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PowerOffsetInformation-RL-SetupRqstFDD ::= SEQUENCE {
    p01-ForTFCL-Bits                   PowerOffset,
    p02-ForTPC-Bits                     PowerOffset,
    p03-ForPilotBits                    PowerOffset,
    iE-Extensions                       ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationList-RL-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationItem-RL-SetupRqstFDD

DCH-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    dCH-ID                               DCH-ID,
    dCH-CombinationIndication            DCH-CombinationIndication OPTIONAL,
    limitedPowerIncrease             LimitedPowerIncrease,
    ul-TransportFormatSet                TransportFormatSet,
    dl-TransportFormatSet                TransportFormatSet,
    frameHandlingPriority                 FrameHandlingPriority,
    payloadCRC-PresenceIndicator         PayloadCRC-PresenceIndicator,
    ul-FP-Mode                           UL-FP-Mode,
    qE-Selector                           QE-Selector,
    toAWS                                 ToAWS,
    toAWE                                 ToAWE,

```

```

    iE-Extensions          ProtocolExtensionContainer { { DCH-InformationItem-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

DCH-InformationItem-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationList-RL-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationItem-RL-SetupRqstFDD

DSCH-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    dSCH-ID                DSCH-ID,
    dSCH-TFS               DSCH-TFS,
    frameHandlingPriority  FrameHandlingPriority,
    toAWS                  ToAWS,
    toAWE                  ToAWE,
    iE-Extensions          ProtocolExtensionContainer { { DSCH-InformationItem-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

DSCH-InformationItem-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF
    ProtocolIE-Container{{ RL-InformationItemIE-RL-SetupRqstFDD }}

RL-InformationItemIE-RL-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-RL-InformationItem-RL-SetupRqstFDD      CRITICALITY    notify          TYPE          RL-InformationItem-RL-SetupRqstFDD      PRESENCE
    mandatory},
    ...
}

RL-InformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    rL-ID                  RL-ID,
    c-ID                   C-ID,
    frameOffset            FrameOffset,
    chipOffset             ChipOffset,
    propagationDelay       PropagationDelay          OPTIONAL,
    diversityControlField  DiversityControlField  OPTIONAL,
    -- This IE is present only if the RL is not the first one in the RL Information
    dl-CodeInformationList DL-CodeInformationList-RL-SetupRqstFDD,
    initialDL-transmissionPower  DL-Power,
    maximumDL-power        DL-Power,
    minimumDL-power        DL-Power,
    sSDT-Cell-Identity     SSdT-Cell-Identity          OPTIONAL,
    transmitDiversityIndicator  TransmitDiversityIndicator  OPTIONAL,
    -- This IE is present unless Diversity Mode IE in UL DPCH Information group is "none"
    iE-Extensions          ProtocolExtensionContainer { { RL-InformationItem-RL-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

RL-InformationItem-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

DL-CodeInformationList-RL-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfCodes)) OF DL-CodeInformationItem-RL-SetupRqstFDD

DL-CodeInformationItem-RL-SetupRqstFDD ::= SEQUENCE {
    dl-ScramblingCode          DL-ScramblingCode,
    fdd-DL-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
    iE-Extensions              ProtocolExtensionContainer { { DL-CodeInformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CodeInformationItem-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK SETUP REQUEST TDD
--
-- *****

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

RadioLinkSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          CRITICALITY reject          TYPE CRNC-CommunicationContextID
      PRESENCE mandatory }|
    { ID id-UL-CCTrCH-InformationList-RL-SetupRqstTDD          CRITICALITY notify          TYPE UL-CCTrCH-InformationList-RL-SetupRqstTDD
      PRESENCE optional }|
    { ID id-UL-DPCH-InformationList-RL-SetupRqstTDD          CRITICALITY notify          TYPE UL-DPCH-InformationList-RL-SetupRqstTDD
      PRESENCE optional }|
    { ID id-DL-CCTrCH-InformationList-RL-SetupRqstTDD          CRITICALITY notify          TYPE DL-CCTrCH-InformationList-RL-SetupRqstTDD
      PRESENCE optional }|
    { ID id-DL-DPCH-InformationList-RL-SetupRqstTDD          CRITICALITY notify          TYPE DL-DPCH-InformationList-RL-SetupRqstTDD
      PRESENCE optional }|
    { ID id-DCH-InformationList-RL-SetupRqstTDD          CRITICALITY reject          TYPE DCH-InformationList-RL-SetupRqstTDD
      PRESENCE optional }|
    { ID id-DSCH-InformationList-RL-SetupRqstTDD          CRITICALITY reject          TYPE DSCH-InformationList-RL-SetupRqstTDD
      PRESENCE optional }|
    { ID id-USCH-InformationList-RL-SetupRqstTDD          CRITICALITY reject          TYPE USCH-InformationList-RL-SetupRqstTDD
      PRESENCE optional }|
    { ID id-RL-Information-RL-SetupRqstTDD          CRITICALITY reject          TYPE RL-Information-RL-SetupRqstTDD
      PRESENCE mandatory },
    ...
}

RadioLinkSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE(1..maxNrOfCCTrCHs)) OF

```

```

ProtocolIE-Container{{ UL-CCTrCH-InformationItemIE-RL-SetupRqstTDD }}

UL-CCTrCH-InformationItemIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID      id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD      CRITICALITY      notify      TYPE UL-CCTrCH-InformationItem-RL-SetupRqstTDD
  PRESENCE      mandatory},
  ...
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
  cCTrCH-ID          CCTrCH-ID,
  tFCS              TFCS,
  tFCI-Coding       TFCI-Coding,
  punctureLimit     PunctureLimit,
  iE-Extensions     ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs } }      OPTIONAL,
  ...
}

UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

UL-DPCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationItem-RL-SetupRqstTDD

UL-DPCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
  dPCH-ID          DPCH-ID,
  tdd-ChannelisationCode  TDD-ChannelisationCode,
  burstType        BurstType,
  midambleShift    MidambleShift,
  timeSlot         TimeSlot,
  tdd-PhysicalChannelOffset  TDD-PhysicalChannelOffset,
  repetitionPeriod  RepetitionPeriod,
  repetitionLength  RepetitionLength,
  tFCI-Presence     TFCI-Presence,
  iE-Extensions     ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs } }      OPTIONAL,
  ...
}

UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Container{{ DL-CCTrCH-InformationItemIE-RL-SetupRqstTDD
}}

DL-CCTrCH-InformationItemIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID      id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD      CRITICALITY      notify      TYPE DL-CCTrCH-InformationItem-RL-SetupRqstTDD
  PRESENCE      mandatory},
  ...
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
  cCTrCH-ID          CCTrCH-ID,
  tFCS              TFCS,
  tFCI-Coding       TFCI-Coding,

```

```

    punctureLimit                PunctureLimit,
    tdd-TPC-DownlinkStepSize     TDD-TPC-DownlinkStepSize,
    iE-Extensions                ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-DPCH-InformationItem-RL-SetupRqstTDD

DL-DPCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    dPCH-ID                      DPCH-ID,
    tdd-ChannelisationCode       TDD-ChannelisationCode,
    burstType                    BurstType,
    midambleShift                MidambleShift,
    timeSlot                    TimeSlot,
    tdd-PhysicalChannelOffset    TDD-PhysicalChannelOffset,
    repetitionPeriod             RepetitionPeriod,
    repetitionLength             RepetitionLength,
    tFCI-Presence                TFCI-Presence,
    iE-Extensions                ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-InformationItem-RL-SetupRqstTDD

DCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    limitedPowerIncrease LimitedPowerIncrease,
    ul-CCTrCH-ID                CCTrCH-ID,
    dl-CCTrCH-ID                CCTrCH-ID,
    dCH-CombinationIndication   DCH-CombinationInd            OPTIONAL,
    ul-TransportFormatSet       TransportFormatSet,
    dl-TransportFormatSet       TransportFormatSet,
    frameHandlingPriority        FrameHandlingPriority        OPTIONAL,
    payloadCRC-PresenceIndicator PayloadCRC-PresenceIndicator,
    ul-FP-Mode                  UL-FP-Mode,
    toAWS                       ToAWS,
    toAWE                       ToAWE,
    iE-Extensions                ProtocolExtensionContainer { { DCH-InformationItem-RL-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

DCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationItem-RL-SetupRqstTDD

```



```

DSCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    dSCH-ID                DSCH-ID,
    cCTrCH-ID              CCTrCH-ID,
    transportFormatSet     TransportFormatSet,
    frameHandlingPriority   FrameHandlingPriority,
    toAWS                  ToAWS,
    toAWE                  ToAWE,
    iE-Extensions          ProtocolExtensionContainer { { DSCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationItem-RL-SetupRqstTDD

USCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    uSCH-ID                USCH-ID,
    cCTrCH-ID              CCTrCH-ID,
    transportFormatSet     TransportFormatSet,
    iE-Extensions          ProtocolExtensionContainer { { USCH-InformationItemIE-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-InformationItemIE-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-SetupRqstTDD ::= SEQUENCE {
    rL-ID                  RL-ID,
    c-ID                   C-ID,
    frameOffset            FrameOffset,
    initialDL-transmissionPower DL-Power,
    maximumDL-power       DL-Power,
    minimumDL-power       DL-Power,
    iE-Extensions          ProtocolExtensionContainer { { RL-Information-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

.. Text omitted ..

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

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

RadioLinkReconfigurationPrepareFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-NodeB-CommunicationContextID      CRITICALITY   reject      TYPE      NodeB-CommunicationContextID
    PRESENCE  mandatory } |
    { 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-DCH-ModifyList-RL-ReconfPrepFDD      CRITICALITY   reject      TYPE      DCH-ModifyList-RL-ReconfPrepFDD
    PRESENCE  optional } |
    { ID      id-DCH-AddList-RL-ReconfPrepFDD         CRITICALITY   reject      TYPE      DCH-AddList-RL-ReconfPrepFDD
    PRESENCE  optional } |
    { ID      id-DCH-DeleteList-RL-ReconfPrepFDD      CRITICALITY   reject      TYPE      DCH-DeleteList-RL-ReconfPrepFDD
    PRESENCE  optional } |
    { ID      id-DSCH-ModifyList-RL-ReconfPrepFDD     CRITICALITY   reject      TYPE      DSCH-ModifyList-RL-ReconfPrepFDD
    PRESENCE  optional } |
    { ID      id-DSCH-AddList-RL-ReconfPrepFDD        CRITICALITY   reject      TYPE      DSCH-AddList-RL-ReconfPrepFDD
    PRESENCE  optional } |
    { ID      id-DSCH-DeleteList-RL-ReconfPrepFDD    CRITICALITY   reject      TYPE      DSCH-DeleteList-RL-ReconfPrepFDD
    PRESENCE  optional } |
    { ID      id-RL-InformationList-RL-ReconfPrepFDD CRITICALITY   reject      TYPE      RL-InformationList-RL-ReconfPrepFDD
    PRESENCE  optional },
    ...
}

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

UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    ul-ScramblingCode          UL-ScramblingCode          OPTIONAL,
    ul-SIR-Target              UL-SIR                    OPTIONAL,
    minUL-ChannelisationCodeLength  MinUL-ChannelisationCodeLength  OPTIONAL,
    maxNrOfUL-DPDCHs          MaxNrOfUL-DPDCHs          OPTIONAL,
    -- This IE is present only if minUL-ChannelisationCodeLength equals to 4
    ul-PunctureLimit          PunctureLimit            OPTIONAL,
    tFCS                      TFCS                    OPTIONAL,
    ul-DPCCH-SlotFormat        UL-DPCCH-SlotFormat        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  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
tFCS                    TFCS                    OPTIONAL,
dl-DPCH-SlotFormat      DL-DPCH-SlotFormat      OPTIONAL,
tFCI-SignallingMode     TFCI-SignallingMode     OPTIONAL,
tFCI-Presence           TFCI-Presence           OPTIONAL,
-- This IE is only present if the DL DPCH Slot Format is equal to any of the value from 12 to 16
multiplexingPosition    MultiplexingPosition    OPTIONAL,
pDSCH-CodeMapping       PDSCH-CodeMapping       OPTIONAL,
pDSCH-RL-ID             RL-ID             OPTIONAL,
limitedPowerIncrease     LimitedPowerIncrease     OPTIONAL,
iE-Extensions          ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs } }  OPTIONAL,
...
}

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

DCH-ModifyList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfPrepFDD

DCH-ModifyItem-RL-ReconfPrepFDD ::= SEQUENCE {
dCH-ID                  DCH-ID,
ul-TransportFormatSet   TransportFormatSet      OPTIONAL,
dl-TransportFormatSet   TransportFormatSet      OPTIONAL,
frameHandlingPriority    FrameHandlingPriority    OPTIONAL,
ul-FP-Mode              UL-FP-Mode              OPTIONAL,
toAWS                   ToAWS                   OPTIONAL,
toAWE                   ToAWE                   OPTIONAL,
iE-Extensions          ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs } }  OPTIONAL,
...
}

DCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DCH-AddList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfPrepFDD

DCH-AddItem-RL-ReconfPrepFDD ::= SEQUENCE {
dCH-ID                  DCH-ID,
dCH-CombinationIndication DCH-CombinationInd     OPTIONAL,
limitedPowerIncrease  LimitedPowerIncrease,
ul-TransportFormatSet   TransportFormatSet,
dl-TransportFormatSet   TransportFormatSet,
frameHandlingPriority    FrameHandlingPriority,

```

```

payloadCRC-PresenceIndicator      PayloadCRC-PresenceIndicator,
ul-FP-Mode                        UL-FP-Mode,
qE-Selector                       QE-Selector,
toAWS                             ToAWS,
toAWE                             ToAWE,
iE-Extensions                     ProtocolExtensionContainer { { DCH-AddItem-RL-ReconfPrepFDD-ExtIEs } }      OPTIONAL,
...
}

DCH-AddItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..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  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DSCH-ModifyList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Container {{DSCH-ModifyItemIE-RL-ReconfPrepFDD }}

DSCH-ModifyItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-DSCH-ModifyItem-RL-ReconfPrepFDD      CRITICALITY reject      TYPE      DSCH-ModifyItem-RL-ReconfPrepFDD      PRESENCE      mandatory},
    ...
}

DSCH-ModifyItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dSCH-ID                        DSCH-ID,
    dl-TransportFormatSet          TransportFormatSet      OPTIONAL,
    frameHandlingPriority          FrameHandlingPriority    OPTIONAL,
    toAWS                          ToAWS                   OPTIONAL,
    toAWE                          ToAWE                   OPTIONAL,
    iE-Extensions                 ProtocolExtensionContainer { { DSCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs } }      OPTIONAL,
    ...
}

DSCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DSCH-AddList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Container {{DSCH-AddItemIE-RL-ReconfPrepFDD }}

DSCH-AddItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-DSCH-AddItem-RL-ReconfPrepFDD      CRITICALITY reject      TYPE      DSCH-AddItem-RL-ReconfPrepFDD      PRESENCE      mandatory},
    ...
}

DSCH-AddItem-RL-ReconfPrepFDD ::= SEQUENCE {

```

```

    dSCH-ID                DSCH-ID,
    dl-TransportFormatSet  TransportFormatSet,
    frameHandlingPriority  FrameHandlingPriority,
    toAWS                  ToAWS,
    toAWE                  ToAWE,
    iE-Extensions          ProtocolExtensionContainer { { DSCH-AddItem-RL-ReconfPrepFDD-ExtIEs } }      OPTIONAL,
    ...
}

DSCH-AddItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Container {{DSCH-DeleteItemIE-RL-ReconfPrepFDD }}

DSCH-DeleteItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-DSCH-DeleteItem-RL-ReconfPrepFDD      CRITICALITY reject          TYPE      DSCH-DeleteItem-RL-ReconfPrepFDD  PRESENCE  mandatory},
    ...
}

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

DSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-InformationItemIE-RL-ReconfPrepFDD }}

RL-InformationItemIE-RL-ReconfPrepFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-RL-InformationItem-RL-ReconfPrepFDD      CRITICALITY reject          TYPE      RL-InformationItem-RL-ReconfPrepFDD  PRESENCE
    mandatory},
    ...
}

RL-InformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
    rL-ID                RL-ID,
    dl-CodeInformationList  DL-CodeInformationList-RL-ReconfPrepFDD  OPTIONAL,
    maxDL-Power            DL-Power                OPTIONAL,
    minDL-Power            DL-Power                OPTIONAL,
    sSDT-Indication        SSDT-Indication            OPTIONAL,
    sSDT-Cell-Identity     SSDT-Cell-Identity     OPTIONAL,
    -- The IE may be present if the SSDT Indication is set to SSDT Active in the UE
    iE-Extensions          ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfPrepFDD-ExtIEs } }      OPTIONAL,
    ...
}

RL-InformationItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

DL-CodeInformationList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDLCodes)) OF DL-CodeInformationItem-RL-ReconfPrepFDD

DL-CodeInformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dl-scramblingCode                DL-ScramblingCode                OPTIONAL,
    fdd-DL-ChannelisationCodeNumber  FDD-DL-ChannelisationCodeNumber  OPTIONAL,
    iE-Extensions                    ProtocolExtensionContainer { { DL-CodeInformationList-RL-ReconfPrepFDD-ExtIEs } }
    OPTIONAL,
    ...
}

DL-CodeInformationList-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK RECONFIGURATION PREPARE TDD
--
-- *****

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

RadioLinkReconfigurationPrepareTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID                CRITICALITY reject TYPE NodeB-CommunicationContextID
      PRESENCE mandatory } |
    { ID id-UL-CCTrCH-InformationList-RL-ReconfPrepTDD  CRITICALITY reject TYPE UL-CCTrCH-InformationList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID id-DL-CCTrCH-InformationList-RL-ReconfPrepTDD  CRITICALITY reject TYPE DL-CCTrCH-InformationList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID id-DCH-ModifyList-RL-ReconfPrepTDD             CRITICALITY reject TYPE DCH-ModifyList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID id-DCH-AddList-RL-ReconfPrepTDD                CRITICALITY reject TYPE DCH-AddList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID id-DCH-DeleteList-RL-ReconfPrepTDD             CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID id-DSCH-Information-ModifyList-RL-ReconfPrepTDD CRITICALITY reject TYPE DSCH-Information-ModifyList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID id-DSCH-information-AddList-RL-ReconfPrepTDD   CRITICALITY reject TYPE DSCH-Information-AddList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID id-DSCH-Information-DeleteList-RL-ReconfPrepTDD CRITICALITY reject TYPE DSCH-Information-DeleteList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID id-USCH-Information-ModifyList-RL-ReconfPrepTDD CRITICALITY reject TYPE USCH-Information-ModifyList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID id-USCH-information-AddList-RL-ReconfPrepTDD   CRITICALITY reject TYPE USCH-Information-AddList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID id-USCH-Information-DeleteList-RL-ReconfPrepTDD CRITICALITY reject TYPE USCH-Information-DeleteList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID id-RL-Information-RL-ReconfPrepTDD            CRITICALITY reject TYPE RL-Information-RL-ReconfPrepTDD
      PRESENCE optional },
    ...
}

```

```

}

RadioLinkReconfigurationPrepareTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCH-InformationList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID          CCTrCH-ID,
    tFCS              TFCs                OPTIONAL,
    tFCI-Coding       TFCI-Coding          OPTIONAL,
    punctureLimit     PunctureLimit        OPTIONAL,
    ul-DPCH-InformationList UL-DPCH-InformationList-RL-ReconfPrepTDD OPTIONAL,
    iE-Extensions     ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationList-RL-ReconfPrepTDD ::= ProtocolIE-Container {{ UL-DPCH-InformationListIEs-RL-ReconfPrepTDD }}

UL-DPCH-InformationListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationListIE-RL-ReconfPrepTDD CRITICALITY reject TYPE UL-DPCH-InformationListIE-RL-ReconfPrepTDD PRESENCE
    mandatory },
    ...
}

UL-DPCH-InformationListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationItem-RL-ReconfPrepTDD

UL-DPCH-InformationItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID          DPCH-ID,
    tDD-ChannelisationCode TDD-ChannelisationCode OPTIONAL,
    burstType        BurstType          OPTIONAL,
    midambleShift    MidambleShift      OPTIONAL,
    timeSlot         TimeSlot           OPTIONAL,
    tdd-PhysicalChannelOffset TDD-PhysicalChannelOffset OPTIONAL,
    repetitionPeriod RepetitionPeriod   OPTIONAL,
    repetitionLength RepetitionLength    OPTIONAL,
    tFCI-Presence     TFCI-Presence      OPTIONAL,
    iE-Extensions     ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
    ...
}

UL-DPCH-InformationItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID          CCTrCH-ID,

```

```

tFCS                                TFCS                                OPTIONAL,
tFCI-Coding                          TFCI-Coding                          OPTIONAL,
punctureLimit                        PunctureLimit                        OPTIONAL,
dl-DPCH-InformationList              DL-DPCH-InformationList-RL-ReconfPrepTDD  OPTIONAL,
iE-Extensions                        ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-ReconfPrepTDD-ExtIEs } }
OPTIONAL,
...
}

DL-CCTrCH-InformationItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DL-DPCH-InformationList-RL-ReconfPrepTDD ::= ProtocolIE-Container { { DL-DPCH-InformationListIEs-RL-ReconfPrepTDD } }

DL-DPCH-InformationListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
  { ID id-DL-DPCH-InformationListIE-RL-ReconfPrepTDD  CRITICALITY reject      TYPE DL-DPCH-InformationListIE-RL-ReconfPrepTDD      PRESENCE
  mandatory },
  ...
}

DL-DPCH-InformationListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-DPCH-InformationItem-RL-ReconfPrepTDD

DL-DPCH-InformationItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dPCH-ID                                DPCH-ID,
  tdd-ChannelisationCode                  TDD-ChannelisationCode                OPTIONAL,
  burstType                               BurstType                             OPTIONAL,
  midambleShift                           MidambleShift                         OPTIONAL,
  timeSlot                                TimeSlot                              OPTIONAL,
  tdd-PhysicalChannelOffset                TDD-PhysicalChannelOffset             OPTIONAL,
  repetitionPeriod                        RepetitionPeriod                      OPTIONAL,
  rpetitionLength                          RepetitionLength                      OPTIONAL,
  tFCI-Presence                            TFCI-Presence                        OPTIONAL,
  iE-Extensions                            ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-ReconfPrepTDD-ExtIEs } }  OPTIONAL,
  ...
}

DL-DPCH-InformationItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfPrepTDD

DCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dCH-ID                                DCH-ID,
  ul-cCCTrCH-ID                          CCTrCH-ID                            OPTIONAL,
  dl-cCCTrCH-ID                          CCTrCH-ID                            OPTIONAL,
  ul-TransportFormatSet                   TransportFormatSet                    OPTIONAL,
  dl-TransportFormatSet                   TransportFormatSet                    OPTIONAL,
  frameHandlingPriority                    FrameHandlingPriority                 OPTIONAL,
  ul-FP-Mode                              UL-FP-Mode                           OPTIONAL,
  toAWS                                   ToAWS                                 OPTIONAL,
  toAWE                                    ToAWE                                 OPTIONAL,
  iE-Extensions                            ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs } }  OPTIONAL,

```



```

}
...
DCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
}
...
DCH-AddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfPrepTDD
DCH-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dCH-ID                DCH-ID,
  limitedPowerIncrease LimitedPowerIncrease,
  ul-CCTrCH-ID          CCTrCH-ID,
  dl-CCTrCH-ID          CCTrCH-ID,
  dCH-CombinationIndication  DCH-CombinationIndication OPTIONAL,
  ul-TransportFormatSet  TransportFormatSet,
  dl-TransportFormatSet  TransportFormatSet,
  frameHandlingPriority   FrameHandlingPriority,
  payloadCRC-PresenceIndicator PayloadCRC-PresenceIndicator,
  ul-FP-Mode             UL-FP-Mode,
  toAWS                 ToAWS,
  toAWE                 ToAWE,
  iE-Extensions         ProtocolExtensionContainer { { DCH-AddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
  ...
}
DCH-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
}
...
DCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD
DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dCH-ID                DCH-ID,
  iE-Extensions         ProtocolExtensionContainer { { DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
  ...
}
DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
}
...
DSCH-Information-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-ModifyItem-RL-ReconfPrepTDD
DSCH-Information-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dSCH-ID                DSCH-ID,
  cCTrCH-ID              CCTrCH-ID OPTIONAL,
  transportFormatSet     TransportFormatSet OPTIONAL,
  frameHandlingPriority   FrameHandlingPriority OPTIONAL,
  toAWS                  ToAWS OPTIONAL,
  toAWE                  ToAWE OPTIONAL,
  iE-Extensions         ProtocolExtensionContainer { { DSCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
  ...
}

```

```

DSCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DSCH-Information-AddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-AddItem-RL-ReconfPrepTDD

DSCH-Information-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dSCH-ID          DSCH-ID,
  cCTrCH-ID       CCTrCH-ID,
  transportFormatSet  TransportFormatSet,
  frameHandlingPriority  FrameHandlingPriority  OPTIONAL,
  toAWS           ToAWS,
  toAWE           ToAWE,
  iE-Extensions  ProtocolExtensionContainer { { DSCH-Information-AddItem-RL-ReconfPrepTDD-ExtIEs} }  OPTIONAL,
  ...
}

DSCH-Information-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DSCH-Information-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-DeleteItem-RL-ReconfPrepTDD

DSCH-Information-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dSCH-ID          DSCH-ID,
  iE-Extensions  ProtocolExtensionContainer { { DSCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }  OPTIONAL,
  ...
}

DSCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

USCH-Information-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-ModifyItem-RL-ReconfPrepTDD

USCH-Information-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  uSCH-ID          USCH-ID,
  transportFormatSet  TransportFormatSet  OPTIONAL,
  cCTrCH-ID       CCTrCH-ID  OPTIONAL,
  iE-Extensions  ProtocolExtensionContainer { { USCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }  OPTIONAL,
  ...
}

USCH-Information-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

USCH-Information-AddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-AddItem-RL-ReconfPrepTDD

USCH-Information-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  uSCH-ID          USCH-ID,
  cCTrCH-ID       CCTrCH-ID,
  transportFormatSet  TransportFormatSet,

```

```

    iE-Extensions          ProtocolExtensionContainer { { USCH-Information-AddItem-RL-ReconfPrepTDD-ExtIEs } }      OPTIONAL,
    ...
}

USCH-Information-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-Information-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-DeleteItem-RL-ReconfPrepTDD

USCH-Information-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    uSCH-ID                USCH-ID,
    iE-Extensions          ProtocolExtensionContainer { { USCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs } }      OPTIONAL,
    ...
}

USCH-Information-DeleteItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-ReconfPrepTDD ::= SEQUENCE {
    rL-ID                  RL-ID,
    maxDL-Power            DL-Power          OPTIONAL,
    minDL-Power            DL-Power          OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { RL-Information-RL-ReconfPrepTDD-ExtIEs } }      OPTIONAL,
    ...
}

RL-Information-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

.. Text omitted ..

```
-- *****
--
-- RADIO LINK RECONFIGURATION REQUEST FDD
--
-- *****
```

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

```
RadioLinkReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-NodeB-CommunicationContextID      CRITICALITY    reject      TYPE      NodeB-CommunicationContextID
    PRESENCE  mandatory      } |
    { ID      id-UL-DPCH-Information-RL-ReconfRqstFDD  CRITICALITY    reject      TYPE      UL-DPCH-Information-RL-ReconfRqstFDD
    PRESENCE  optional      } |
    { ID      id-DL-DPCH-Information-RL-ReconfRqstFDD  CRITICALITY    reject      TYPE      DL-DPCH-Information-RL-ReconfRqstFDD
    PRESENCE  optional      } |
    { ID      id-DCH-ModifyList-RL-ReconfRqstFDD      CRITICALITY    reject      TYPE      DCH-ModifyList-RL-ReconfRqstFDD
    PRESENCE  optional      } |
    { ID      id-DCH-AddList-RL-ReconfRqstFDD         CRITICALITY    reject      TYPE      DCH-AddList-RL-ReconfRqstFDD
    PRESENCE  optional      } |
    { ID      id-DCH-DeleteList-RL-ReconfRqstFDD      CRITICALITY    reject      TYPE      DCH-DeleteList-RL-ReconfRqstFDD
    PRESENCE  optional      } |
    { ID      id-DSCH-ModifyList-RL-ReconfRqstFDD     CRITICALITY    reject      TYPE      DSCH-ModifyList-RL-ReconfRqstFDD
    PRESENCE  optional      } |
    { ID      id-DSCH-AddList-RL-ReconfRqstFDD        CRITICALITY    reject      TYPE      DSCH-AddList-RL-ReconfRqstFDD
    PRESENCE  optional      } |
    { ID      id-DSCH-DeleteList-RL-ReconfRqstFDD     CRITICALITY    reject      TYPE      DSCH-DeleteList-RL-ReconfRqstFDD
    PRESENCE  optional      } |
    { ID      id-RL-InformationList-RL-ReconfRqstFDD  CRITICALITY    reject      TYPE      RL-InformationList-RL-ReconfRqstFDD
    PRESENCE  optional      },
    ...
}
```

```
RadioLinkReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    ul-TFCS          TFCS          OPTIONAL,
    iE-Extensions   ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs } }    OPTIONAL,
    ...
}
```

```
UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```

DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    dl-TFCS                                TFCS                OPTIONAL,
    tFCI-SignallingMode                    TFCI-SignallingMode  OPTIONAL,
    pDSCH-CodeMapping                      PDSCH-CodeMapping    OPTIONAL,
    pDSCH-RL-ID                            RL-ID                OPTIONAL,
    limitedPowerIncrease                    LimitedPowerIncrease  OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs } }  OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifyList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfRqstFDD

DCH-ModifyItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID,
    ul-TransportFormatSet                  TransportFormatSet    OPTIONAL,
    dl-TransportFormatSet                  TransportFormatSet    OPTIONAL,
    frameHandlingPriority                  FrameHandlingPriority  OPTIONAL,
    ul-FP-Mode                            UL-FP-Mode           OPTIONAL,
    toAWS                                  ToAWS                OPTIONAL,
    toAWE                                  ToAWE                OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs } }  OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRqstFDD

DCH-AddItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID,
    dCH-CombinationInd                    DCH-CombinationInd  OPTIONAL,
    limitedPowerIncrease                    LimitedPowerIncrease,
    ul-TransportFormatSet                  TransportFormatSet,
    dl-TransportFormatSet                  TransportFormatSet,
    frameHandlingPriority                  FrameHandlingPriority,
    payloadCRC-PresenceIndicator          PayloadCRC-PresenceIndicator,
    ul-FP-Mode                            UL-FP-Mode,
    qE-Selector                            QE-Selector,
    toAWS                                  ToAWS,
    toAWE                                  ToAWE,
    iE-Extensions                          ProtocolExtensionContainer { { DCH-Add-RL-ReconfRqstFDDItem-ExtIEs } }  OPTIONAL,
    ...
}

DCH-Add-RL-ReconfRqstFDDItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

DCH-DeleteList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD

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

DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-ModifyList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Container {{DSCH-ModifyItemIE-RL-ReconfRqstFDD }}

DSCH-ModifyItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-DSCH-ModifyItem-RL-ReconfRqstFDD      CRITICALITY reject      TYPE      DSCH-ModifyItem-RL-ReconfRqstFDD      PRESENCE      mandatory},
    ...
}

DSCH-ModifyItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dSCH-ID                DSCH-ID,
    dl-TransportFormatSet  TransportFormatSet      OPTIONAL,
    frameHandlingPriority   FrameHandlingPriority    OPTIONAL,
    toAWS                  ToAWS                    OPTIONAL,
    toAWE                  ToAWE                    OPTIONAL,
    iE-Extensions         ProtocolExtensionContainer { { DSCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-AddList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Container {{DSCH-AddItemIE-RL-ReconfRqstFDD }}

DSCH-AddItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-DSCH-AddItem-RL-ReconfRqstFDD      CRITICALITY reject      TYPE      DSCH-AddItem-RL-ReconfRqstFDD      PRESENCE      mandatory},
    ...
}

DSCH-AddItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dSCH-ID                DSCH-ID,
    dl-TransportFormatSet  TransportFormatSet,
    frameHandlingPriority   FrameHandlingPriority,
    toAWS                  ToAWS,
    toAWE                  ToAWE,
    iE-Extensions         ProtocolExtensionContainer { { DSCH-AddItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-AddItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
DSCH-DeleteList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Container {{DSCH-DeleteItemIE-RL-ReconfRqstFDD }}
DSCH-DeleteItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
  { ID      id-DSCH-DeleteItem-RL-ReconfRqstFDD      CRITICALITY reject      TYPE      DSCH-DeleteItem-RL-ReconfRqstFDD      PRESENCE      mandatory},
  ...
}
DSCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
  dSCH-ID          DSCH-ID,
  iE-Extensions    ProtocolExtensionContainer { { DSCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs } }      OPTIONAL,
  ...
}
DSCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
RL-InformationList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-InformationItemIE-RL-ReconfRqstFDD}}
RL-InformationItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
  { ID      id-RL-InformationItem-RL-ReconfRqstFDD      CRITICALITY      reject      TYPE RL-InformationItem-RL-ReconfRqstFDD
  PRESENCE      mandatory},
  ...
}
RL-InformationItem-RL-ReconfRqstFDD ::= SEQUENCE {
  rL-ID          RL-ID,
  maxDL-Power    DL-Power      OPTIONAL,
  minDL-Power    DL-Power      OPTIONAL,
  iE-Extensions  ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstFDD-ExtIEs } }      OPTIONAL,
  ...
}
RL-InformationItem-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
-- *****
--
-- RADIO LINK RECONFIGURATION REQUEST TDD
--
-- *****

RadioLinkReconfigurationRequestTDD ::= SEQUENCE {
  protocolIEs      ProtocolIE-Container      {{RadioLinkReconfigurationRequestTDD-IEs}},
  protocolExtensions      ProtocolExtensionContainer {{RadioLinkReconfigurationRequestTDD-Extensions}}      OPTIONAL,
  ...
}
RadioLinkReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {

```

```

{ ID id-NodeB-CommunicationContextID
  PRESENCE mandatory } |
{ ID id-UL-CCTrCH-InformationList-RL-ReconfRqstTDD
  PRESENCE optional } |
{ ID id-DL-CCTrCH-InformationList-RL-ReconfRqstTDD
  PRESENCE optional } |
{ ID id-DCH-ModifyList-RL-ReconfRqstTDD
  PRESENCE optional } |
  { ID id-DCH-AddList-RL-ReconfRqstTDD
    CRITICALITY reject
    TYPE DCH-AddList-RL-ReconfRqstTDD
    PRESENCE optional } |
{ ID id-DCH-DeleteList-RL-ReconfRqstTDD
  PRESENCE optional } |
{ ID id-DSCH-Information-ModifyList-RL-ReconfRqstTDD
  PRESENCE optional } |
{ ID id-DSCH-Information-AddList-RL-ReconfRqstTDD
  PRESENCE optional } |
{ ID id-DSCH-Information-DeleteList-RL-ReconfRqstTDD
  PRESENCE optional } |
{ ID id-USCH-Information-ModifyList-RL-ReconfRqstTDD
  PRESENCE optional } |
{ ID id-USCH-Information-AddList-RL-ReconfRqstTDD
  PRESENCE optional } |
{ ID id-USCH-Information-DeleteList-RL-ReconfRqstTDD
  PRESENCE optional } |
{ ID id-RL-Information-RL-ReconfRqstTDD
  CRITICALITY ignore
  TYPE RL-Information-RL-ReconfRqstTDD
  PRESENCE optional },
...
}

RadioLinkReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
...
}

UL-CCTrCH-InformationList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Container {{ UL-CCTrCH-InformationItemIE-RL-
ReconfRqstTDD}}

UL-CCTrCH-InformationItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-CCTrCH-InformationItem-RL-ReconfRqstTDD
    PRESENCE mandatory},
  ...
}

UL-CCTrCH-InformationItem-RL-ReconfRqstTDD ::= SEQUENCE {
  cCTrCH-ID CCTrCH-ID,
  tFCS TFCS OPTIONAL,
  punctureLimit PunctureLimit OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs} }
  OPTIONAL,
  ...
}

UL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

```



DL-CCTrCH-InformationList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Container { { DL-CCTrCH-InformationItemIE-RL-ReconfRqstTDD} }

DL-CCTrCH-InformationItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {  
 { ID id-DL-CCTrCH-InformationItem-RL-ReconfRqstTDD CRITICALITY notify TYPE DL-CCTrCH-InformationItem-RL-ReconfRqstTDD  
 PRESENCE mandatory},  
 ...  
}

DL-CCTrCH-InformationItem-RL-ReconfRqstTDD ::= SEQUENCE {  
 cCCTrCH-ID CCTrCH-ID,  
 tFCS TFCS OPTIONAL,  
 punctureLimit PunctureLimit OPTIONAL,  
 iE-Extensions ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs } }  
 OPTIONAL,  
 ...  
}

DL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {  
 ...  
}

DCH-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfRqstTDD

DCH-ModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {  
 dCH-ID DCH-ID,  
 ul-CCTrCH-ID CCTrCH-ID OPTIONAL,  
 dl-CCTrCH-ID CCTrCH-ID OPTIONAL,  
 ul-TransportFormatSet TransportFormatSet OPTIONAL,  
 dl-TransportFormatSet TransportFormatSet OPTIONAL,  
 frameHandlingPriority FrameHandlingPriority OPTIONAL,  
 ul-FP-Mode UL-FP-Mode OPTIONAL,  
 toAWS ToAWS OPTIONAL,  
 toAWE ToAWE OPTIONAL,  
 iE-Extensions ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfRqstTDD-ExtIEs } } OPTIONAL,  
 ...  
}

DCH-ModifyItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {  
 ...  
}

DCH-AddList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRqstTDD

DCH-AddItem-RL-ReconfRqstTDD ::= SEQUENCE {  
 dCH-ID DCH-ID,  
~~limitedPowerIncrease LimitedPowerIncrease,~~  
 ul-CCTrCH-ID CCTrCH-ID,  
 dl-CCTrCH-ID CCTrCH-ID,  
 dCH-CombinaionInd DCH-CombinationInd OPTIONAL,  
 ul-TransportFormatSet TransportFormatSet,  
 dl-TransportFormatSet TransportFormatSet,  
 frameHandlingPriority FrameHandlingPriority,

```

    payloadCRC-PresenceIndicator      PayloadCRC-PresenceIndicator,
    ul-FP-Mode                        UL-FP-Mode,
    toAWS                             ToAWS,
    toAWE                             ToAWE,
    iE-Extensions                     ProtocolExtensionContainer { { DCH-AddItem-RL-ReconfRqstTDD-ExtIEs } }      OPTIONAL,
    ...
}

DCH-AddItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstTDD

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

DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-Information-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-ModifyItem-RL-ReconfRqstTDD

DSCH-Information-ModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dSCH-ID                            DSCH-ID,
    cCTrCH-ID                          CCTrCH-ID                        OPTIONAL,
    transportFormatSet                  TransportFormatSet              OPTIONAL,
    frameHandlingPriority                FrameHandlingPriority           OPTIONAL,
    toAWS                               ToAWS                          OPTIONAL,
    toAWE                               ToAWE                          OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { DSCH-Information-ModifyItem-RL-ReconfRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}

DSCH-Information-ModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-Information-AddList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-AddItem-RL-ReconfRqstTDD

DSCH-Information-AddItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dSCH-ID                            DSCH-ID,
    cCTrCH-ID                          CCTrCH-ID,
    transportFormatSet                  TransportFormatSet,
    frameHandlingPriority                FrameHandlingPriority           OPTIONAL,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    iE-Extensions                       ProtocolExtensionContainer { { DSCH-Information-AddItem-RL-ReconfRqstTDD-ExtIEs } }      OPTIONAL,
    ...
}

```

```

DSCH-Information-AddItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DSCH-Information-DeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-DeleteItem-RL-ReconfRqstTDD

DSCH-Information-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
  dSCH-ID          DSCH-ID,
  iE-Extensions    ProtocolExtensionContainer { { DSCH-Information-DeleteItem-RL-ReconfRqstTDD-ExtIEs} }
  OPTIONAL,
  ...
}

DSCH-Information-DeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

USCH-Information-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-ModifyItem-RL-ReconfRqstTDD

USCH-Information-ModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
  uSCH-ID          USCH-ID,
  cCTrCH-ID        CCTrCH-ID          OPTIONAL,
  transportFormatSet TransportFormatSet OPTIONAL,
  iE-Extensions    ProtocolExtensionContainer { { USCH-Information-ModifyItem-RL-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
  ...
}

USCH-Information-ModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

USCH-Information-AddList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-AddItem-RL-ReconfRqstTDD

USCH-Information-AddItem-RL-ReconfRqstTDD ::= SEQUENCE {
  uSCH-ID          USCH-ID,
  cCTrCH-ID        CCTrCH-ID,
  transportFormatSet TransportFormatSet,
  iE-Extensions    ProtocolExtensionContainer { { USCH-Information-AddItem-RL-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
  ...
}

USCH-Information-AddItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

USCH-Information-DeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-DeleteItem-RL-ReconfRqstTDD

USCH-Information-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
  uSCH-ID          USCH-ID,
  iE-Extensions    ProtocolExtensionContainer { { USCH-Information-DeleteItem-RL-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
  ...
}

```

```
USCH-Information-DeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {  
  ...  
}  
  
RL-Information-RL-ReconfRqstTDD ::= SEQUENCE {  
  rL-ID          RL-ID,  
  maxDL-Power   DL-Power      OPTIONAL,  
  minDL-Power   DL-Power      OPTIONAL,  
  iE-Extensions ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstTDD-ExtIEs } } OPTIONAL,  
  ...  
}
```





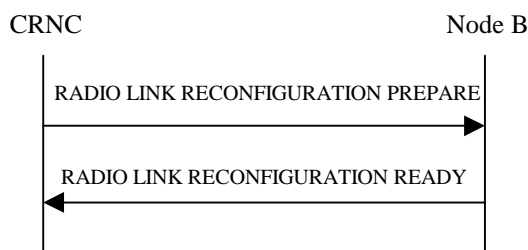
## 8.3.2 Synchronised Radio Link Reconfiguration Preparation

### 8.3.2.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of all Radio Links related to one UE-UTRAN connection within a Node B.

The Synchronised Radio Link Reconfiguration Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

### 8.3.2.2 Successful Operation



**Figure 30: Synchronised Radio Link Reconfiguration procedure, Successful Operation**

The Synchronised Radio Link Reconfiguration Preparation procedure is initiated by the CRNC by sending the message RADIO LINK RECONFIGURATION PREPARE to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B 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.

#### **DCH Modification:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Frame Handling Priority* IE for a DCH to be modified, the Node B 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 Node B once the new configuration has been activated.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Format Set* IE for the UL of a DCH to be modified, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Format Set* IE for the DL of a DCH to be modified, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *UL FP Mode* IE for a DCH to be modified, the Node B shall apply the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWS* IE for a DCH to be modified, the Node B shall apply the new ToAWS in the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWE* IE for a DCH to be modified, the Node B shall apply the new ToAWE in the user plane for this DCH in the new configuration.

#### **DCH Addition:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be added to the Radio Link(s), the Node B 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 RADIO LINK RECONFIGURATION PREPARE message includes the *DCH Combination Indicator* IE for a DCH to be added, the Node B shall.

1. treat all DCHs with the same value of this IE as a set of coordinated DCHs and
2. include this DCH in the new configuration only if it can include all DCHs with the same value of the *DCH Combination Indicator* IE in the new configuration

[FDD - For DCHs with a unique or no “DCH Combination Ind” and the *QE-Selector* IE set to “selected DCH”, 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. [25.427]. If the QE-Selector is set to “non-selected DCH”, the Physical channel BER shall be used for the QE in the UL data frames, ref. [25.427]].

[FDD - For DCHs with the same “DCH Combination Ind” the Transport channel BER from the DCH with the *QE-Selector* IE set to “selected DCH” shall be used for the QE in the UL data frames, ref. [25.427]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [25.427]. If all DCHs have *QE-Selector* IE set to “non-selected DCH” the Physical channel BER shall be used for the QE, ref. [25.427]].

The Node B 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 Node B once the new configuration has been activated.

The Node B shall use the included *UL FP Mode* IE for a DCH to be added as the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

The Node B shall use the included *ToAWS* IE for a DCH to be added as the new Time of Arrival Window Start Point in the user plane for this DCH in the new configuration.

The Node B shall use the included *ToAWE* IE for a DCH to be added as the new Time of Arrival Window End Point in the user plane for this DCH in the new configuration.

#### **DCH Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be deleted from the Radio Link(s), the Node B shall not include this DCH in the new configuration.

If of all the DCHs belonging to a set of coordinated DCHs are requested to be deleted, the Node B shall not include this set of coordinated DCHs in the new configuration.

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

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Uplink Scrambling Code* IE, the Node B shall apply this Uplink Scrambling Code to the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *Uplink Channelisation Code* IEs, the Node B shall apply the new Uplink Channelisation Code(s) in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *Downlink Channelisation Code* IEs, the Node B shall apply the new Downlink Channelisation Code(s) in the new configuration.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *UL DPCH Information* IE groups, the Node B shall apply the new UL physical channel(s) setting in the new configuration.]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *DL DPCH Information* IE groups, the Node B shall apply the new physical channel(s) setting in the new configuration.]

The Node B shall use the *TFCS* IE for the UL when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the Uplink of [TDD – the CCTrCH of] the new configuration.

The Node B shall use the *TFCS* IE for the DL when reserving resources for the downlink of the new configuration. The Node B shall apply the new TFCS in the Downlink of [TDD – the CCTrCH of] the new configuration.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes on the *UL DPCCCH Structure* IE, group the Node B shall set the new Uplink DPCCCH Structure to the new configuration.]

If the RADIO LINK RECONFIGURATION PREPARE includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a higher power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.



[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *UL SIR Target* IE, the Node B shall set the UL inner loop power control to the UL SIR target when the new configuration is being used.]

If the RADIO LINK RECONFIGURATION PREPARE includes the *Minimum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a lower power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.

#### **SSDT Activation/Deactivation:**

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SSDT Indication* IE set to "SSDT Active in the UE", the Node B may activate SSDT using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SSDT Indication* IE set to "SSDT not Active in the UE", the Node B shall deactivate SSDT in the new configuration.]

#### **DSCH [TDD – and/or USCH] Addition/Modification/Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes DSCH information for the DSCHs to be added/modified/deleted then the Node B 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. The Node B shall include in the RADIO LINK RECONFIGURATION READY message the Transport Layer Address and the Binding ID of the DSCHs being added or modified.

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *PDSCH code mapping* IE then the Node B shall apply the defined mapping between TFCI values and PDSCH channelisation codes. ]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *PDSCH RL ID* IE then the Node B shall infer that the PDSCH for the specified user will be transmitted on the defined radio link.]

#### **[TDD - USCH Addition/Modification/Deletion:]**

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes USCH information for the USCHs to be added/modified/deleted then the NodeB 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. – It shall include in the RADIO LINK RECONFIGURATION READY message the Transport Layer Address and the Binding ID of the USCHs being added or modified.]

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

In case of a set of coordinated DCHs requiring a new transport bearer on Iub DCH-information-response IE to be added group or DCH to be modified group shall be included only for one of the DCH in the set of coordinated DCHs.

In case of a Radio Link being combined with another Radio Link within the Node B, the RL Information Response IE group shall be included only for one of the combined RLs.

## 8.3.5 Unsynchronised Radio Link Reconfiguration

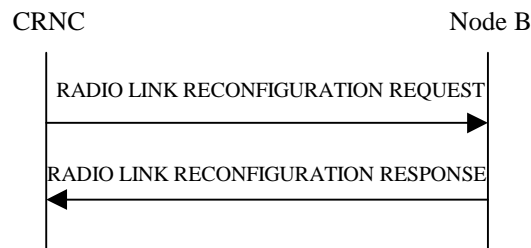
### 8.3.5.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a Node B.

The Unsynchronised RL Reconfiguration procedure is used when there is no need to synchronise the time of the switching from the old to the new configuration in one Node B used for a UE-UTRAN connection with any other Node B also used for the UE –UTRAN connection.

The Unsynchronised Radio Link Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

### 8.3.5.2 Successful Operation



**Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation**

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the CRNC by sending the message RADIO LINK RECONFIGURATION REQUEST to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

Upon reception, the Node B 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.

#### **DCH Modification:**

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *Frame Handling Priority* IE for a DCH to be modified, the Node B 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 Node B once the new configuration has been activated.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Format Set* IE for the UL of a DCH to be modified, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transport Format Set* IE for the DL a DCH to be modified, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *UL FP Mode* IE for a DCH to be modified, the Node B shall apply the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *ToAWS* IE for a DCH to be modified, the Node B shall apply the new ToAWS in the user plane for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *ToAWE* IE for a DCH to be modified, the Node B shall apply the new ToAWE in the user plane for this DCH in the new configuration.

#### **DCH Addition:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be added to the Radio Link(s), the Node B 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 RADIO LINK RECONFIGURATION REQUEST message includes the *DCH Combination Indicator* IE for a DCH to be added, the Node B shall.

1. Treat all DCHs with the same value of this IE as a set of coordinated DCHs and
2. Include this DCH in the new configuration only if it can include all DCHs with the same value of the *DCH Combination Indicator* IE in the new configuration.

[FDD - For DCHs with a unique or no “DCH Combination Ind” and the *QE-Selector* IE set to “selected DCH”, 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. [25.427]. If the *QE-Selector* is set to “non-selected DCH”, the Physical channel BER shall be used for the QE in the UL data frames, ref. [25.427]].

[FDD - For DCHs with the same “DCH Combination Ind” the Transport channel BER from the DCH with the *QE-Selector* IE set to “selected DCH” shall be used for the QE in the UL data frames, ref. [25.427]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [25.427]. If all DCHs have *QE-Selector* IE set to “non-selected DCH” the Physical channel BER shall be used for the QE, ref. [25.427]].

The Node B 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 Node B once the new configuration has been activated.

The Node B shall use the included *UL FP Mode* IE for a DCH to be added as the new FP Mode in the Uplink of the user plane for this DCH in the new configuration.

The Node B shall use the included *ToAWS* IE for a DCH to be added as the new Time of Arrival Window Start Point in the user plane for this DCH in the new configuration.

The Node B shall use the included *ToAWE* IE for a DCH to be added as the new Time of Arrival Window End Point in the user plane for this DCH in the new configuration.

#### **DCH Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be deleted from the Radio Link(s), the Node B shall not include this DCH in the new configuration.

If of all the DCHs belonging to a set of coordinated DCHs are requested to be deleted, the Node B shall not include this set of coordinated DCHs in the new configuration.

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

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *TFCS (UL)* IE, the Node B shall apply the new TFCS in the Uplink of [TDD – the CCTrCH of] the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *TFCS (DL)* IE, the Node B shall apply the new TFCS in the Downlink of [TDD – the CCTrCH of] the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a higher power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.

If the RADIO LINK RECONFIGURATION REQUEST includes the *Minimum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a lower power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.

#### **DSCH [TDD – and/or USCH] Addition/Modification/Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes DSCH information for the DSCHs to be added/modified/deleted then the NodeB 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. The Node B shall include in the RADIO LINK RECONFIGURATION RESPONSE message the Transport Layer Address and the Binding ID of the DSCHs being added or modified.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *PDSCH code mapping* IE then the Node B shall apply the defined mapping between TFCI values and PDSCH channelisation codes. ]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *PDSCH RL ID* IE then the Node B shall infer that the PDSCH for the specified user will be transmitted on the defined radio link.]

[TDD - **USCH Addition/Modification/Deletion:**]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes USCH information for the USCHs to be added/modified/deleted then the NodeB 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. – It shall include in the RADIO LINK RECONFIGURATION RESPONSE message the Transport Layer Address and the Binding ID of the USCHs being added or modified.]

If the requested modifications are allowed by the Node B, the Node B has successfully allocated the required resources, and changed to the new configuration it shall respond to the CRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

In case of a set of coordinated DCHs requiring a new transport bearer on Iub, the DCH-information-response IE ~~to be added group or DCH to be modified group~~ shall be included for one of the DCH in the set of coordinated DCHs.

In case of a Radio Link being combined with another Radio Link within the Node B, RL Information Response IE group shall be included only for one of the combined Radio Links.

## 9.1.42 RADIO LINK RECONFIGURATION READY

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				-	
Message Type	M				YES	reject
CRNC Communication Context ID	M				YES	ignore
Transaction ID	M				-	
<b>RL Information Response</b>		0..<max noofRLs >		Only one RL information response group for one group of combined RLs shall be present	EACH	ignore
>RL ID	M				-	
<b>&gt;DCH Information Response to be Added</b>		0..<max noofDC Hs>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M				-	
>>Binding ID	M				-	
>>Transport Layer Address	M				-	
<b>&gt;DCH to be Modified</b>		0..<max noofDG Hs>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M				-	
>>Binding ID	M				-	
>>Transport Layer Address	M				-	
<b>&gt;DSCH Information Response to be Setup</b>		0..<Max noofDS CHs>			GLOBAL	ignore
>>DSCH ID	M				-	
>>Binding ID	M				-	
>>Transport Layer Address	M				-	
<b>&gt;DSCH to be Modified</b>		0..<Max noofDS CHs>			GLOBAL	ignore
>>DSCH ID	M				-	
>>Binding ID	M				-	
>>Transport Layer Address	M				-	
<b>&gt;USCH Information Response to be setup</b>		0 .. <Maxno of USCHs >			GLOBAL	ignore
>>USCH ID	M				-	
>>Binding ID	M				-	
>>Transport Layer Address	M				-	
<b>&gt;USCH to be modified</b>		0.. <Maxno of USCHs >			GLOBAL	ignore

>>USCH ID	M				-	
>>Binding ID	M				-	
>>Transport Layer Address	M				-	
Criticality diagnostics	O				YES	ignore

Range Bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs for a UE.
<i>MaxnoofRLs</i>	Maximum number of RLs for a UE.
<i>MaxnoofDSCHs</i>	Maximum number of DSCHs for one UE
<i>MaxnoofUSCHs</i>	Maximum number of USCHs for one UE

## 9.1.47 RADIO LINK RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				-	
Message Type	M				YES	reject
CRNC Communication Context ID	M				YES	ignore
Transaction ID	M				-	
<b>RL Information Response</b>		0..<maxn oofRLs>		Only one RL information response group for one group of combined RLs shall be present	EACH	ignore
>RL ID	M				-	
<b>&gt;DCH Information Response to be Added</b>		0..<maxn oofDCHs >		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M				-	
>>Binding ID	M				-	
>>Transport Layer Address	M				-	
<b>&gt;DCH to be Modified</b>		0..<maxn oofDCHs >		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M				-	
>>Binding ID	M				-	
>>Transport Layer Address	M				-	
<b>&gt;DSCH Information Response to be Setup</b>		0..<Maxn oofDSCH s>			GLOBAL	ignore
>>DSCH ID	M				-	
>>Binding ID	M				-	
>>Transport Layer Address	M				-	
<b>&gt;DSCH to be Modified</b>		0..<Maxn oofDSCH s>			GLOBAL	ignore
>>DSCH ID	M				-	
>>Binding ID	M				-	
>>Transport Layer Address	M				-	
<b>&gt;USCH Information Response to be setup</b>		0 .. <Maxnoo fUSCHs>			GLOBAL	ignore
>>USCH ID	M				-	
>>Binding ID	M				-	
>>Transport Layer Address	M				-	
<b>&gt;USCH to be modified</b>		0... <Maxnee fUSCHs>			GLOBAL	ignore
>>USCH ID	M				-	
>>Binding ID	M				-	

>>Transport Layer Address	M				-	
Criticality diagnostics	O				YES	ignore

Range bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs for a UE.
<i>MaxnoofRLs</i>	Maximum number of RLs for a UE.
<i>MaxnoofDSCHs</i>	Maximum number of DSCHs for one UE
<i>MaxnoodUSCHs</i>	Maximum number of USCHs for one UE



### 9.3.3 NBAP PDU Content Definitions

```
-- *****
--
-- PDU definitions for NBAP.
--
-- *****

NBAP-PDU-Contents -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- *****
--
-- IE parameter types from other modules.
--
-- *****

IMPORTS
    AddorDeleteIndicator,
    AICH-TransmissionTiming,
    AvailabilityStatus,
    BCCH-ModificationTime,
    BindingID,
    BlockingPriorityIndicator,
    BlockSTTD-Indicator,
    BurstType,
    Cause,
    CCTrCH-ID,
    CellParameterID,
    CFN,
    CFNOffset,
    ChipOffset,
    C-ID,
    CommonChannelsCapacityConsumptionLaw,
    CommonMeasurementType,
    CommonMeasurementValue,
    CommonPhysicalChannelID,
    CommonTransportChannelID,
    CommunicationControlPortID,
    CompressedModeMethod,
    ConfigurationGenerationID,
    CriticalityDiagnostics,
    CRNC-CommunicationContextID,
    DCH-CombinationInd,
    DCH-ID,
    DedicatedMeasurementObjectType,
    DedicatedChannelsCapacityConsumptionLaw,
    DedicatedMeasurementType,
    DedicatedMeasurementValue,
    D-FieldLength,
    DiversityControlField,
```

```
DiversityMode,  
DL-DPCH-SlotFormat,  
DL-FrameType,  
DL-or-Global-CapacityCredit,  
DL-Power,  
DL-ScramblingCode,  
DPCH-ID,  
DSCH-ID,  
-- to do  
DSCH-TFS,  
FDD-DL-ChannelisationCodeNumber,  
FDD-S-CCPCH-Offset,  
FDD-TPC-DownlinkStepSize,  
FrameHandlingPriority,  
FrameOffset,  
GapPeriod,  
GapPositionMode,  
IB-SG-DATA,  
IB-SG-POS,  
IB-SG-REP,  
IB-Type,  
IndicationType,  
LimitedPowerIncrease,  
Local-Cell-ID,  
MaximumDL-PowerCapability,  
MaximumTransmissionPower,  
MaxNrOfUL-DPDCHs,  
MaxPRACH-MidambleShifts,  
MeasurementFilterCoefficient,  
MeasurementID,  
MidambleShift,  
MinSpreadingFactor,  
MinUL-ChannelisationCodeLength,  
MultiplexingPosition,  
NodeB-CommunicationContextID,  
PagingIndicatorLength,  
PayloadCRC-PresenceIndicator,  
PCCPCH-Power,  
PD,  
PDSCH-CodeMapping,  
PDSCHSet-ID,  
PDSCH-ID,  
PICH-Mode,  
PowerAdjustmentType,  
PowerControlMode,  
PowerOffset,  
PowerResumeMode,  
PRACH-Midamble,  
PreambleSignatures,  
PreambleThreshold,  
PrimaryCPICH-Power,  
PrimaryScramblingCode,  
PropagationDelay,  
SCH-TimeSlot,
```

PunctureLimit,  
PUSCHSet-ID,  
PUSCH-ID,  
QE-Selector,  
RACH-SlotFormat,  
RACH-SubChannelNumbers,  
RepetitionLength,  
RepetitionPeriod,  
ReportCharacteristics,  
ResourceOperationalState,  
RL-Set-ID,  
RL-ID,  
ScaledMaxAdjustmentPeriod,  
ScaledMaxAdjustmentStep,  
ScramblingCodeChange,  
ScramblingCodeWordNumber,  
SecondaryCCPCH-SlotFormat,  
S-FieldLength,  
SFN,  
ShutdownTimer,  
SIB-DeletionIndicator,  
SIB-Originator,  
SSDT-Cell-Identity,  
SSDT-CellID-Length,  
SSDT-Indication,  
STTD-Indicator,  
SSDT-SupportIndicator,  
SyncCase,  
T-Cell,  
TDD-ChannelisationCode,  
TDD-TPC-DownlinkStepSize,  
TDD-PhysicalChannelOffset,  
TFCI-Coding,  
TFCI-Presence,  
TFCI-SignallingMode,  
TFCS,  
TGD,  
TGL,  
TimeSlot,  
TimeSlotDirection,  
TimeSlotStatus,  
ToAWE,  
ToAWS,  
TransmissionDiversityApplied,  
TransmitDiversityIndicator,  
TransportFormatSet,  
TransportLayerAddress,  
TSTD-Indicator,  
UARFCN,  
UL-CapacityCredit,  
UL-DL-CompressedModeSelection,  
UL-DeltaSIR,  
UL-DeltaSIR-after,  
UL-DPCCH-SlotFormat,

```
UL-SIR,
UL-FP-Mode,
UL-InterferenceLevel,
UL-ScramblingCode,
USCH-ID
FROM NBAP-IEs

PrivateIE-Container{ },
ProtocolExtensionContainer{ },
ProtocolIE-Container{ },
ProtocolIE-ContainerList{ },
NBAP-PRIVATE-IES,
NBAP-PROTOCOL-IES,
NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers

id-AICH-InformationItem-AuditRsp,
id-AICH-InformationItem-ResourceStatusInd,
id-AICH-ParametersList-CTCH-ReconfRqstFDD,
id-AllRLItem-DM-Rprt,
id-AllRLItem-DM-Rsp,
id-AllRLItem-Set-DM-Rprt,
id-AllRLItem-Set-DM-Rsp,
id-BCH-InformationItem-AuditRsp,
id-BCH-InformationItem-ResourceStatusInd,
id-BCCH-ModificationTime,
id-BlockingPriorityIndicator,
id-Case1Item-Cell-SetupRqstTDD,
id-Case2Item-Cell-SetupRqstTDD,
id-Cause,
id-CCP-InformationItem-AuditRsp,
id-CCP-InformationList-AuditRsp,
id-CCP-InformationItem-ResourceStatusInd,
id-Cell-InformationItem-AuditRsp,
id-Cell-InformationItem-ResourceStatusInd,
id-Cell-InformationList-AuditRsp,
id-CellItem-CM-Rprt,
id-CellItem-CM-Rqst,
id-CellItem-CM-Rsp,
id-CellParameterID,
id-CFN,
id-C-ID,
id-CombiningItem-RL-AdditionFailureFDD,
id-CombiningItem-RL-AdditionRspFDD,
id-CombiningItem-RL-AdditionRspTDD,
id-CombiningItem-RL-SetupFailureFDD,
id-CombiningItem-RL-SetupRspFDD,
id-CommonMeasurementObjectType-CM-Rprt,
id-CommonMeasurementObjectType-CM-Rqst,
id-CommonMeasurementObjectType-CM-Rsp,
id-CommonMeasurementType,
id-CommonPhysicalChannelID,
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD,
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD,
```

id-CommonTransportChannelType-CTCH-ReconfRqstTDD,  
id-CommonTransportChannelType-CTCH-SetupRsp,  
id-CommunicationControlPortID,  
id-CM-PatternInformationItem-CompressedModePrep,  
id-CM-PatternInformationList-CompressedModePrep,  
id-ConfigurationGenerationID,  
id-CRNC-CommunicationContextID,  
id-CriticalityDiagnostics,  
~~id-DCH-AddListIE-RL-ReconfReady,~~  
~~id-DCH-AddListIE-RL-ReconfRsp,~~  
id-DCH-AddList-RL-ReconfPrepFDD,  
id-DCH-AddList-RL-ReconfPrepTDD,  
id-DCH-AddList-RL-ReconfRqstFDD,  
id-DCH-AddList-RL-ReconfRqstTDD,  
id-DCH-DeleteList-RL-ReconfPrepFDD,  
id-DCH-DeleteList-RL-ReconfPrepTDD,  
id-DCH-DeleteList-RL-ReconfRqstFDD,  
id-DCH-DeleteList-RL-ReconfRqstTDD,  
id-DCH-InformationList-RL-SetupRqstFDD,  
id-DCH-InformationList-RL-SetupRqstTDD,  
~~id-DCH-InformationResponseListIE-RL-ReconfReady,~~  
~~id-DCH-InformationResponseListIE-RL-ReconfRsp,~~  
id-DCH-InformationResponseItem-RL-SetupRspTDD,  
id-DCH-InformationResponseListIE-RL-SetupRspTDD,  
~~id-DCH-ModifyListIE-RL-ReconfReady,~~  
~~id-DCH-ModifyListIE-RL-ReconfRsp,~~  
id-DCH-ModifyList-RL-ReconfPrepFDD,  
id-DCH-ModifyList-RL-ReconfPrepTDD,  
id-DCH-ModifyList-RL-ReconfRqstFDD,  
id-DCH-ModifyList-RL-ReconfRqstTDD,  
id-DedicatedMeasurementObjectType,  
id-DedicatedMeasurementObjectType-DM-Rprt,  
id-DedicatedMeasurementObjectType-DM-Rqst,  
id-DedicatedMeasurementObjectType-DM-Rsp,  
id-DedicatedMeasurementType,  
id-DL-CCTrCH-InformationItem-RL-ReconfRqstTDD,  
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,  
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,  
id-DL-CCTrCH-InformationList-RL-ReconfPrepTDD,  
id-DL-CCTrCH-InformationList-RL-ReconfRqstTDD,  
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,  
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD,  
id-DL-DPCH-InformationList-RL-AdditionRqstTDD,  
id-DL-DPCH-InformationList-RL-SetupRqstTDD,  
id-DL-DPCH-InformationListIE-RL-ReconfPrepTDD,  
id-DL-DPCH-Information-RL-ReconfPrepFDD,  
id-DL-DPCH-Information-RL-ReconfRqstFDD,  
id-DL-DPCH-Information-RL-SetupRqstFDD,  
id-DL-ReferencePowerInformationItem-DL-PC-Rqst,  
id-DLReferencePower,  
id-DLReferencePowerList-DL-PC-Rqst,  
id-DSCH-AddItem-RL-ReconfPrepFDD,  
id-DSCH-AddItem-RL-ReconfRqstFDD,  
id-DSCH-AddList-RL-ReconfPrepFDD,

id-DSCH-AddList-RL-ReconfRqstFDD,  
id-DSCH-DeleteItem-RL-ReconfPrepFDD,  
id-DSCH-DeleteItem-RL-ReconfRqstFDD,  
id-DSCH-DeleteList-RL-ReconfPrepFDD,  
id-DSCH-DeleteList-RL-ReconfRqstFDD,  
id-DSCH-ID,  
id-DSCH-information-AddList-RL-ReconfPrepTDD,  
id-DSCH-Information-AddList-RL-ReconfRqstTDD,  
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD,  
id-DSCH-Information-DeleteList-RL-ReconfRqstTDD,  
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD,  
id-DSCH-Information-ModifyList-RL-ReconfRqstTDD,  
id-DSCH-InformationResponseListIE-RL-AdditionRspTDD,  
id-DSCH-InformationResponseListIE-RL-ReconfReady,  
id-DSCH-InformationResponseListIE-RL-ReconfRsp,  
id-DSCH-InformationRespListIE-RL-SetupFailureFDD,  
id-DSCH-InformationResponseListIE-RL-SetupRspFDD,  
id-DSCH-InformationResponseListIE-RL-SetupRspTDD,  
id-DSCH-InformationList-RL-SetupRqstFDD,  
id-DSCH-InformationList-RL-SetupRqstTDD,  
id-DSCH-ModifyItem-RL-ReconfPrepFDD,  
id-DSCH-ModifyItem-RL-ReconfRqstFDD,  
~~id-DSCH-ModifyListIE-RL-ReconfReady,~~  
~~id-DSCH-ModifyListIE-RL-ReconfRsp,~~  
id-DSCH-ModifyList-RL-ReconfPrepFDD,  
id-DSCH-ModifyList-RL-ReconfRqstFDD,  
~~id-DSCH-SetupListIE-RL-ReconfReady,~~  
~~id-DSCH-SetupListIE-RL-ReconfRsp,~~  
id-FACH-InformationItem-AuditRsp,  
id-FACH-InformationItem-ResourceStatusInd,  
id-FACHItem-CTCH-SetupRsp,  
id-FACH-ParametersList-CTCH-ReconfRqstFDD,  
id-FACH-ParametersList-CTCH-ReconfRqstTDD,  
id-FACH-ParametersListIE-CTCH-SetupRqstFDD,  
id-FACH-ParametersListIE-CTCH-SetupRqstTDD,  
id-IndicationType-ResourceStatusInd,  
id-Local-Cell-ID,  
id-Local-Cell-InformationItem-AuditRsp,  
id-Local-Cell-InformationItem-ResourceStatusInd,  
id-Local-Cell-InformationItem2-ResourceStatusInd,  
id-Local-Cell-InformationList-AuditRsp,  
id-MaxAdjustmentPeriod,  
id-MaxAdjustmentStep,  
id-MaximumTransmissionPower,  
id-MeasurementFilterCoefficient,  
id-MeasurementID,  
id-MIB-SIB-InformationList-SystemInfoUpdateRqst,  
id-NodeBInformation-AuditRep,  
id-No-DeletionItem-SystemInfoUpdate,  
id-No-FailureItem-ResourceStatusInd,  
id-Non-CombiningItem-RL-AdditionFailureFDD,  
id-Non-CombiningItem-RL-AdditionRspFDD,  
id-Non-CombiningItem-RL-AdditionRspTDD,  
id-NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD,

id-NonCombiningOrIENotPrsentItem-RL-SetupRspFDD,  
id-NodeB-CommunicationContextID,  
id-P-CCPCH-InformationItem-AuditRsp,  
id-P-CCPCH-InformationItem-ResourceStatusInd,  
id-P-CPICH-InformationItem-AuditRsp,  
id-P-CPICH-InformationItem-ResourceStatusInd,  
id-P-SCH-InformationItem-AuditRsp,  
id-P-SCH-InformationItem-ResourceStatusInd,  
id-PCCPCH-Information-Cell-ReconfRqstTDD,  
id-PCCPCH-Information-Cell-SetupRqstTDD,  
id-PCH-InformationItem-ResourceStatusInd,  
id-PCHItem-CTCH-SetupRsp,  
id-PCH-Parameters-CTCH-ReconfRqstFDD,  
id-PCH-Parameters-CTCH-ReconfRqstTDD,  
id-PCH-ParametersItem-CTCH-SetupRqstFDD,  
id-PCH-ParametersItem-CTCH-SetupRqstTDD,  
id-PCH-InformationItem-AuditRsp,  
id-PICH-InformationItem-ResourceStatusInd,  
id-PD,  
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst,  
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst,  
id-PDSCHSets-AddList-PSCH-ReconfRqst,  
id-PDSCHSets-DeleteList-PSCH-ReconfRqst,  
id-PDSCHSets-ModifyList-PSCH-ReconfRqst,  
id-PICH-InformationItem-AuditRsp,  
id-PICH-Parameters-CTCH-ReconfRqstFDD,  
id-PICH-Parameters-CTCH-ReconfRqstTDD,  
id-PowerAdjustmentType,  
id-PRACH-InformationItem-AuditRsp,  
id-PRACH-InformationItem-ResourceStatusInd,  
id-PRACHItem-CTCH-SetupRqstFDD,  
id-PRACHItem-CTCH-SetupRqstTDD,  
id-PRACH-ParametersList-CTCH-ReconfRqstFDD,  
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD,  
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD,  
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD,  
id-PrimaryCPICH-Information-Cell-SetupRqstFDD,  
id-PrimarySCH-Information-Cell-ReconfRqstFDD,  
id-PrimarySCH-Information-Cell-SetupRqstFDD,  
id-PrimaryScramblingCode,  
id-ProcedureScopeType-DL-PC-Rqst,  
id-SCH-Information-Cell-ReconfRqstTDD,  
id-SCH-Information-Cell-SetupRqstTDD,  
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst,  
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst,  
id-PUSCHSets-AddList-PSCH-ReconfRqst,  
id-PUSCHSets-DeleteList-PSCH-ReconfRqst,  
id-PUSCHSets-ModifyList-PSCH-ReconfRqst,  
id-RACH-InformationItem-AuditRsp,  
id-RACH-InformationItem-ResourceStatusInd,  
id-RACHItem-CTCH-SetupRsp,  
id-RACHItem-CM-Rprt,  
id-RACHItem-CM-Rqst,  
id-RACHItem-CM-Rsp,

id-RACH-ParametersItem-CTCH-SetupRqstFDD,  
id-RACH-ParameterItem-CTCH-SetupRqstTDD,  
id-ReportCharacteristics,  
id-Reporting-Object-RL-FailureInd,  
id-Reporting-Object-RL-RestoreInd,  
id-RL-ID,  
id-RL-InformationItem-DM-Rprt,  
id-RL-InformationItem-DM-Rqst,  
id-RL-InformationItem-DM-Rsp,  
id-RL-InformationItem-RL-AdditionRqstFDD,  
id-RL-informationItem-RL-DeletionRqst,  
id-RL-InformationItem-RL-FailureInd,  
id-RL-InformationItem-RL-ReconfPrepFDD,  
id-RL-InformationItem-RL-ReconfRqstFDD,  
id-RL-InformationItem-RL-RestoreInd,  
id-RL-InformationItem-RL-SetupRqstFDD,  
id-RL-InformationList-RL-AdditionRqstFDD,  
id-RL-informationList-RL-DeletionRqst,  
id-RL-InformationList-RL-ReconfPrepFDD,  
id-RL-InformationList-RL-ReconfRqstFDD,  
id-RL-InformationList-RL-SetupRqstFDD,  
id-RL-InformationResponseItem-RL-AdditionRspFDD,  
id-RL-InformationResponseItem-RL-ReconfReady,  
id-RL-InformationResponseItem-RL-ReconfRsp,  
id-RL-InformationResponseItem-RL-SetupRspFDD,  
id-RL-InformationResponseList-RL-AdditionRspFDD,  
id-RL-InformationResponseList-RL-ReconfReady,  
id-RL-InformationResponseList-RL-ReconfRsp,  
id-RL-InformationResponseList-RL-SetupRspFDD,  
id-RL-InformationResponse-RL-AdditionRspTDD,  
id-RL-InformationResponse-RL-SetupRspTDD,  
id-RL-Information-RL-AdditionRqstTDD,  
id-RL-Information-RL-ReconfRqstTDD,  
id-RL-Information-RL-ReconfPrepTDD,  
id-RL-Information-RL-SetupRqstTDD,  
id-RLItem-DM-Rprt,  
id-RLItem-DM-Rqst,  
id-RLItem-DM-Rsp,  
id-RLItem-RL-FailureInd,  
id-RLItem-RL-RestoreInd,  
id-RL-ReconfigurationFailureItem-RL-ReconfFailure,  
id-RL-ReconfigurationFailureList-RL-ReconfFailure,  
id-RL-Set-InformationItem-DM-Rprt,  
id-RL-SetItem-DM-Rqst,  
id-RL-Set-InformationItem-DM-Rsp,  
id-RL-Set-InformationItem-RL-FailureInd,  
id-RL-Set-InformationItem-RL-RestoreInd,  
id-RL-SetItem-DM-Rprt,  
id-RL-SetItem-DM-Rsp,  
id-RL-SetItem-RL-FailureInd,  
id-RL-SetItem-RL-RestoreInd,  
id-S-CCPCH-InformationItem-AuditRsp,  
id-S-CCPCH-InformationItem-ResourceStatusInd,  
id-S-CPICH-InformationItem-AuditRsp,



id-S-CPICH-InformationItem-ResourceStatusInd,  
id-SCH-InformationItem-AuditRsp,  
id-SCH-InformationItem-ResourceStatusInd,  
id-S-SCH-InformationItem-AuditRsp,  
id-S-SCH-InformationItem-ResourceStatusInd,  
id-Secondary-CCPCHItem-CTCH-SetupRqstFDD,  
id-Secondary-CCPCHItem-CTCH-SetupRqstTDD,  
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD,  
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD,  
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD,  
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD,  
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD,  
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD,  
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD,  
id-SecondarySCH-Information-Cell-ReconfRqstFDD,  
id-SecondarySCH-Information-Cell-SetupRqstFDD,  
id-SegmentInformationListIE-SystemInfoUpdate,  
id-ServiceImpactingItem-ResourceStatusInd,  
id-SFN,  
id-ShutdownTimer,  
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD,  
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD,  
id-Successful-RL-InformationRespList-RL-AdditionFailureFDD,  
id-Successful-RL-InformationRespList-RL-SetupFailureFDD,  
id-SyncCase,  
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH,  
id-T-Cell,  
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD,  
id-TimeSlotConfigurationList-Cell-SetupRqstTDD,  
id-TransmissionDiversityApplied,  
id-UARFCNforNt,  
id-UARFCNforNd,  
id-UARFCNforNu,  
id-UL-CCTrCH-InformationItem-RL-ReconfRqstTDD,  
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,  
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,  
id-UL-CCTrCH-InformationList-RL-ReconfPrepTDD,  
id-UL-CCTrCH-InformationList-RL-ReconfRqstTDD,  
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,  
id-UL-DPCH-InformationItem-RL-AdditionRqstTDD,  
id-UL-DPCH-InformationList-RL-AdditionRqstTDD,  
id-UL-DPCH-InformationList-RL-SetupRqstTDD,  
id-UL-DPCH-InformationListIE-RL-ReconfPrepTDD,  
id-UL-DPCH-Information-RL-ReconfPrepFDD,  
id-UL-DPCH-Information-RL-ReconfRqstFDD,  
id-UL-DPCH-Information-RL-SetupRqstFDD,  
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD,  
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD,  
id-Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD,  
id-Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD,  
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD,  
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD,  
id-USCH-information-AddList-RL-ReconfPrepTDD,  
id-USCH-Information-AddList-RL-ReconfRqstTDD,

```

id-USCH-Information-DeleteList-RL-ReconfPrepTDD,
id-USCH-Information-DeleteList-RL-ReconfRqstTDD,
id-USCH-Information-ModifyList-RL-ReconfPrepTDD,
id-USCH-Information-ModifyList-RL-ReconfRqstTDD,
id-USCH-InformationResponseListIE-RL-AdditionRspTDD,
id-USCH-InformationResponseListIE-RL-ReconfReady,
id-USCH-InformationResponseListIE-RL-ReconfRsp,
id-USCH-InformationResponseListIE-RL-SetupRspTDD,
id-USCH-InformationList-RL-SetupRqstTDD,
id-USCH-ModifyListIE-RL-ReconfReady,
id-USCH-ModifyListIE-RL-ReconfRsp,
id-USCH-SetupListIE-RL-ReconfReady,
id-USCH-SetupListIE-RL-ReconfRsp,

```

```

maxNrOfCCTrCHs,
maxNrOfCodes,
maxNrOfCmpatterns,
maxNrOfDCHs,
maxNrOfDLCodes,
maxNrOfDPCHs,
maxNrOfDSCHs,
maxNrOfFACHs,
maxNrOfRLs,
maxNrOfRLSets,
maxNrOfPRACHs,
maxNrOfPDSCHs,
maxNrOfPUSCHs,
maxNrOfPDSCHSets,
maxNrOfPUSCHSets,
maxNrOfSCCPCHs,
maxNrOfULTSs,
maxNrOfUSCHs,
maxFACHCell,
maxRACHCell,
maxPRACHCell,
maxSCCPCHCell,
maxSCPICHCell,
maxCellinNodeB,
maxCCPinNodeB,
maxLocalCellinNodeB,
maxSF,
maxIB,
maxIBSEG
FROM NBAP-Constants;

```

...Text Omitted...

```

-- *****
--
-- RADIO LINK RECONFIGURATION READY
--
-- *****

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

RadioLinkReconfigurationReady-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-CRNC-CommunicationContextID          CRITICALITY  ignore      TYPE      CRNC-CommunicationContextID
      PRESENCE mandatory } |
    { ID      id-RL-InformationResponseList-RL-ReconfReady  CRITICALITY  ignore      TYPE      RL-InformationResponseList-RL-ReconfReady
      PRESENCE optional } |
    { ID      id-CriticalityDiagnostics                CRITICALITY  ignore      TYPE      CriticalityDiagnostics
      PRESENCE optional },
    ...
}

RadioLinkReconfigurationReady-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationResponseList-RL-ReconfReady ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-InformationResponseItemIE-RL-
ReconfReady}}

RL-InformationResponseItemIE-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID      id-RL-InformationResponseItem-RL-ReconfReady  CRITICALITY  ignore      TYPE      RL-InformationResponseItem-RL-ReconfReady
      PRESENCE mandatory },
    ...
}

RL-InformationResponseItem-RL-ReconfReady ::= SEQUENCE {
    rL-ID          RL-ID,
    dCH-AddList-RL-ReconfReady          DCH-AddList-RL-ReconfReady          OPTIONAL,
    dCH-ModifyList-RL-ReconfReady        DCH-ModifyList-RL-ReconfReady        OPTIONAL,
    dSCH-SetupList-RL-ReconfReady         DSCH-SetupList-RL-ReconfReady         OPTIONAL,
    dSCH-ModifyList-RL-ReconfReady        DSCH-ModifyList-RL-ReconfReady        OPTIONAL,
    uSCH-SetupList-RL-ReconfReady         USCH-SetupList-RL-ReconfReady         OPTIONAL,
    dCH-InformationResponseList-RL-ReconfReady  DCH-InformationResponseList-RL-ReconfReady  OPTIONAL,
    dSCH-InformationResponseList-RL-ReconfReady  DSCH-InformationResponseList-RL-ReconfReady  OPTIONAL,
    uSCH-InformationResponseList-RL-ReconfReady  USCH-InformationResponseList-RL-ReconfReady  OPTIONAL,
    uSCH-ModifyList-RL-ReconfReady         USCH-ModifyList-RL-ReconfReady         OPTIONAL,
    iE-Extensions  ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfReady-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-ReconfReady-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

}

DCH-InformationReponseList-RL-ReconfReady ::= ProtocolIE-Container {{ DCH-InformationReponseListIEs-RL-ReconfReady }}

DCH-InformationReponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {  
 { ID id-DCH-InformationResponseListIE-RL-ReconfReady CRITICALITY ignore TYPE DCH-InformationReponseListIE-RL-ReconfReady PRESENCE mandatory },  
 ...  
 }

DCH-InformationResponseListIE-RL-ReconfReady ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationReponseItem-RL-ReconfReady

DCH-InformationReponseItem-RL-ReconfReady ::= SEQUENCE {  
 dCH-ID DCH-ID,  
 bindingID BindingID,  
 transportLayerAddress TransportLayerAddress,  
 iE-Extensions ProtocolExtensionContainer { { DCH-InformationReponseItem-RL-ReconfReady-ExtIEs } }  
 OPTIONAL,  
 ...  
 }

DCH-InformationReponseItem-RL-ReconfReady-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {  
 ...  
 }

DSCH-InformationReponseList-RL-ReconfReady ::= ProtocolIE-Container {{ DSCH-InformationReponseListIEs-RL-ReconfReady }}

DSCH-InformationReponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {  
 { ID id-DSCH-InformationResponseListIE-RL-ReconfReady CRITICALITY ignore TYPE DSCH-InformationReponseListIE-RL-ReconfReady PRESENCE mandatory },  
 ...  
 }

DSCH-InformationResponseListIE-RL-ReconfReady ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationReponseItem-RL-ReconfReady

DSCH-InformationReponseItem-RL-ReconfReady ::= SEQUENCE {  
 dSCH-ID DSCH-ID,  
 bindingID BindingID,  
 transportLayerAddress TransportLayerAddress,  
 iE-Extensions ProtocolExtensionContainer { { DSCH-InformationReponseItem-RL-ReconfReady-ExtIEs } }  
 OPTIONAL,  
 ...  
 }

DSCH-InformationReponseItem-RL-ReconfReady-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {  
 ...  
 }

USCH-InformationReponseList-RL-ReconfReady ::= ProtocolIE-Container {{ USCH-InformationReponseListIEs-RL-ReconfReady }}

USCH-InformationReponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {  
 { ID id-USCH-InformationResponseListIE-RL-ReconfReady CRITICALITY ignore TYPE USCH-InformationReponseListIE-RL-ReconfReady PRESENCE mandatory },  
 ...  
 }

USCH-InformationResponseListIE-RL-ReconfReady ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationResponseItem-RL-ReconfReady

```
USCH-InformationResponseItem-RL-ReconfReady ::= SEQUENCE {
  uSCH-ID                USCH-ID,
  bindingID              BindingID,
  transportLayerAddress  TransportLayerAddress,
  IE-Extensions          ProtocolExtensionContainer { { USCH-InformationResponseItem-RL-ReconfReady-ExtIEs } }
  OPTIONAL,
  ...
}
```

USCH-InformationResponseItem-RL-ReconfReady-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```
...
}
```

DCH-AddList-RL-ReconfReady ::= ProtocolIE-Container {{ DCH-AddListIEs-RL-ReconfReady }}

```
DCH-AddListIEs-RL-ReconfReady-NBAP-PROTOCOL-IES ::= {
  { ID id DCH-AddListIE-RL-ReconfReady CRITICALITY ignore TYPE DCH-AddListIE-RL-ReconfReady PRESENCE mandatory },
  ...
}
```

DCH-AddListIE-RL-ReconfReady ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfReady

```
DCH-AddItem-RL-ReconfReady ::= SEQUENCE {
  dCH-ID                DCH-ID,
  bindingID              BindingID,
  transportLayerAddress  TransportLayerAddress,
  IE-Extensions          ProtocolExtensionContainer { { DCH-AddItem-RL-ReconfReady-ExtIEs } }
  OPTIONAL,
  ...
}
```

DCH-AddItem-RL-ReconfReady-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```
...
}
```

DCH-ModifyList-RL-ReconfReady ::= ProtocolIE-Container {{ DCH-ModifyListIEs-RL-ReconfReady }}

```
DCH-ModifyListIEs-RL-ReconfReady-NBAP-PROTOCOL-IES ::= {
  { ID id DCH-ModifyListIE-RL-ReconfReady CRITICALITY ignore TYPE DCH-ModifyListIE-RL-ReconfReady PRESENCE mandatory },
  ...
}
```

DCH-ModifyListIE-RL-ReconfReady ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfReady

```
DCH-ModifyItem-RL-ReconfReady ::= SEQUENCE {
  dCH-ID                DCH-ID,
  bindingID              BindingID,
  transportLayerAddress  TransportLayerAddress,
  IE-Extensions          ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfReady-ExtIEs } }
  OPTIONAL,
  ...
}
```

DCH-ModifyItem-RL-ReconfReady-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

}
}

DSCH-SetupList-RL-ReconfReady ::= ProtocolIE-Container {{ DSCH-SetupListIEs-RL-ReconfReady }}

DSCH-SetupListIEs-RL-ReconfReady-NBAP-PROTOCOL-IES ::= {
  { ID id-DSCH-SetupListIE-RL-ReconfReady CRITICALITY ignore TYPE DSCH-SetupListIE-RL-ReconfReady PRESENCE mandatory },
  ...
}

DSCH-SetupListIE-RL-ReconfReady ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-SetupItem-RL-ReconfReady

DSCH-SetupItem-RL-ReconfReady ::= SEQUENCE {
  dsch-ID DSCH-ID,
  bindingID BindingID,
  transportLayerAddress TransportLayerAddress,
  iE-Extensions ProtocolExtensionContainer { { DSCH-SetupItem-RL-ReconfReady-ExtIEs } } OPTIONAL,
  ...
}

DSCH-SetupItem-RL-ReconfReady-ExtIEs-NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DSCH-ModifyList-RL-ReconfReady ::= ProtocolIE-Container {{ DSCH-ModifyListIEs-RL-ReconfReady }}

DSCH-ModifyListIEs-RL-ReconfReady-NBAP-PROTOCOL-IES ::= {
  { ID id-DSCH-ModifyListIE-RL-ReconfReady CRITICALITY ignore TYPE DSCH-ModifyListIE-RL-ReconfReady PRESENCE mandatory },
  ...
}

DSCH-ModifyListIE-RL-ReconfReady ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-ModifyItem-RL-ReconfReady

DSCH-ModifyItem-RL-ReconfReady ::= SEQUENCE {
  dsch-ID DSCH-ID,
  bindingID BindingID,
  transportLayerAddress TransportLayerAddress,
  iE-Extensions ProtocolExtensionContainer { { DSCH-ModifyItem-RL-ReconfReady-ExtIEs } } OPTIONAL,
  ...
}

DSCH-ModifyItem-RL-ReconfReady-ExtIEs-NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

USCH-SetupList-RL-ReconfReady ::= ProtocolIE-Container {{ USCH-SetupListIEs-RL-ReconfReady }}

USCH-SetupListIEs-RL-ReconfReady-NBAP-PROTOCOL-IES ::= {
  { ID id-USCH-SetupListIE-RL-ReconfReady CRITICALITY ignore TYPE USCH-SetupListIE-RL-ReconfReady PRESENCE mandatory },
  ...
}

USCH-SetupListIE-RL-ReconfReady ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-SetupItem-RL-ReconfReady

```

```

USCH-SetupItem-RL-ReconfReady ::= SEQUENCE {
  uSCH-ID                      USCH-ID,
  bindingID                    BindingID,
  transportLayerAddress        TransportLayerAddress,
  iE-Extensions                ProtocolExtensionContainer { { USCH-SetupItem-RL-ReconfReady-ExtIEs} } OPTIONAL,
  ...
}

USCH-SetupItem-RL-ReconfReady-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

USCH-ModifyList-RL-ReconfReady ::= ProtocolIE-Container { { USCH-ModifyListIEs-RL-ReconfReady } }

USCH-ModifyListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
  { ID id-USCH-ModifyListIE-RL-ReconfReady CRITICALITY ignore TYPE USCH-ModifyListIE-RL-ReconfReady PRESENCE mandatory },
  ...
}

USCH-ModifyListIE-RL-ReconfReady ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-ModifyItem-RL-ReconfReady

USCH-ModifyItem-RL-ReconfReady ::= SEQUENCE {
  uSCH-ID                      USCH-ID,
  bindingID                    BindingID,
  transportLayerAddress        TransportLayerAddress,
  iE-Extensions                ProtocolExtensionContainer { { USCH-ModifyItem-RL-ReconfReady-ExtIEs} } OPTIONAL,
  ...
}

USCH-ModifyItem-RL-ReconfReady-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- RADIO LINK RECONFIGURATION FAILURE
--
-- *****

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

RadioLinkReconfigurationFailure-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID PRESENCE mandatory } |
  { ID id-Cause PRESENCE mandatory } |
  { ID id-RL-ReconfigurationFailureList-RL-ReconfFailure CRITICALITY ignore TYPE RL-ReconfigurationFailureList-RL-ReconfFailure PRESENCE optional } |
  { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },
}

```

```

}
...
RadioLinkReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
}
...
RL-ReconfigurationFailureList-RL-ReconfFailure ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-ReconfigurationFailureItemIE-RL-
ReconfFailure}}
RL-ReconfigurationFailureItemIE-RL-ReconfFailure NBAP-PROTOCOL-IES ::= {
{ ID id-RL-ReconfigurationFailureItem-RL-ReconfFailure CRITICALITY ignore TYPE RL-ReconfigurationFailureItem-RL-
ReconfFailure PRESENCE mandatory},
...
}
RL-ReconfigurationFailureItem-RL-ReconfFailure ::= SEQUENCE {
rL-ID RL-ID,
cause Cause,
iE-Extensions ProtocolExtensionContainer { { RL-ReconfigurationFailureItem-RL-ReconfFailure-ExtIEs} }
OPTIONAL,
...
}
RL-ReconfigurationFailureItem-RL-ReconfFailure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
}
...
-- *****
--
-- RADIO LINK RECONFIGURATION COMMIT
--
-- *****

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

RadioLinkReconfigurationCommit-IEs NBAP-PROTOCOL-IES ::= {
{ ID id-NodeB-CommunicationContextID CRITICALITY ignore TYPE NodeB-CommunicationContextID PRESENCE mandatory } |
{ ID id-CFN CRITICALITY ignore TYPE CFN PRESENCE PRESENCE },
...
}

RadioLinkReconfigurationCommit-Extensions NBAP-PROTOCOL-EXTENSION ::= {
}
...
-- *****
--
-- RADIO LINK RECONFIGURATION CANCEL

```



```

--
-- *****
RadioLinkReconfigurationCancel ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container  {{RadioLinkReconfigurationCancel-IEs}},
    protocolExtensions   ProtocolExtensionContainer  {{RadioLinkReconfigurationCancel-Extensions}}
    ...
}

RadioLinkReconfigurationCancel-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-NodeB-CommunicationContextID      CRITICALITY   ignore          TYPE      NodeB-CommunicationContextID      PRESENCE
    mandatory },
    ...
}

RadioLinkReconfigurationCancel-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK RECONFIGURATION REQUEST FDD
--
-- *****

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

RadioLinkReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-NodeB-CommunicationContextID      CRITICALITY   reject          TYPE      NodeB-CommunicationContextID
    PRESENCE   mandatory } |
    { ID      id-UL-DPCH-Information-RL-ReconfRqstFDD      CRITICALITY   reject          TYPE      UL-DPCH-Information-RL-ReconfRqstFDD
    PRESENCE   optional } |
    { ID      id-DL-DPCH-Information-RL-ReconfRqstFDD      CRITICALITY   reject          TYPE      DL-DPCH-Information-RL-ReconfRqstFDD
    PRESENCE   optional } |
    { ID      id-DCH-ModifyList-RL-ReconfRqstFDD          CRITICALITY   reject          TYPE      DCH-ModifyList-RL-ReconfRqstFDD
    PRESENCE   optional } |
    { ID      id-DCH-AddList-RL-ReconfRqstFDD            CRITICALITY   reject          TYPE      DCH-AddList-RL-ReconfRqstFDD
    PRESENCE   optional } |
    { ID      id-DCH-DeleteList-RL-ReconfRqstFDD         CRITICALITY   reject          TYPE      DCH-DeleteList-RL-ReconfRqstFDD
    PRESENCE   optional } |
    { ID      id-DSCH-ModifyList-RL-ReconfRqstFDD        CRITICALITY   reject          TYPE      DSCH-ModifyList-RL-ReconfRqstFDD
    PRESENCE   optional } |
    { ID      id-DSCH-AddList-RL-ReconfRqstFDD           CRITICALITY   reject          TYPE      DSCH-AddList-RL-ReconfRqstFDD
    PRESENCE   optional } |
    { ID      id-DSCH-DeleteList-RL-ReconfRqstFDD        CRITICALITY   reject          TYPE      DSCH-DeleteList-RL-ReconfRqstFDD
    PRESENCE   optional } |
    { ID      id-RL-InformationList-RL-ReconfRqstFDD     CRITICALITY   reject          TYPE      RL-InformationList-RL-ReconfRqstFDD
    PRESENCE   optional },
    ...
}

```

```

RadioLinkReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    ul-TFCS                TFCS                OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    dl-TFCS                TFCS                OPTIONAL,
    tFCI-SignallingMode    TFCI-SignallingMode    OPTIONAL,
    pDSCH-CodeMapping      PDSCH-CodeMapping    OPTIONAL,
    pDSCH-RL-ID            RL-ID                OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifyList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfRqstFDD

DCH-ModifyItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID                DCH-ID,
    ul-TransportFormatSet TransportFormatSet    OPTIONAL,
    dl-TransportFormatSet TransportFormatSet    OPTIONAL,
    frameHandlingPriority FrameHandlingPriority  OPTIONAL,
    ul-FP-Mode            UL-FP-Mode            OPTIONAL,
    toAWS                 ToAWS                OPTIONAL,
    toAWE                 ToAWE                OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRqstFDD

DCH-AddItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID                DCH-ID,
    dCH-CombinationInd     DCH-CombinationInd    OPTIONAL,

```

```

limitedPowerIncrease
ul-TransportFormatSet
dl-TransportFormatSet
frameHandlingPriority
payloadCRC-PresenceIndicator
ul-FP-Mode
qE-Selector
toAWS
toAWE
iE-Extensions
...
}

DCH-Add-RL-ReconfRqstFDDItem-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DCH-DeleteList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD

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

DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DSCH-ModifyList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Container {{DSCH-ModifyItemIE-RL-ReconfRqstFDD }}

DSCH-ModifyItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-DSCH-ModifyItem-RL-ReconfRqstFDD      CRITICALITY reject      TYPE      DSCH-ModifyItem-RL-ReconfRqstFDD      PRESENCE      mandatory},
    ...
}

DSCH-ModifyItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dSCH-ID                DSCH-ID,
    dl-TransportFormatSet  TransportFormatSet      OPTIONAL,
    frameHandlingPriority   FrameHandlingPriority    OPTIONAL,
    toAWS                  ToAWS                  OPTIONAL,
    toAWE                  ToAWE                  OPTIONAL,
    iE-Extensions         ProtocolExtensionContainer { { DSCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

DSCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DSCH-AddList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Container {{DSCH-AddItemIE-RL-ReconfRqstFDD }}

DSCH-AddItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {

```

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```

    { ID      id-DSCH-AddItem-RL-ReconfRqstFDD      CRITICALITY reject      TYPE      DSCH-AddItem-RL-ReconfRqstFDD      PRESENCE      mandatory},
    ...
}

DSCH-AddItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dSCH-ID          DSCH-ID,
    dl-TransportFormatSet      TransportFormatSet,
    frameHandlingPriority      FrameHandlingPriority,
    toAWS             ToAWS,
    toAWE             ToAWE,
    iE-Extensions    ProtocolExtensionContainer { { DSCH-AddItem-RL-ReconfRqstFDD-ExtIEs} }      OPTIONAL,
    ...
}

DSCH-AddItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-DeleteList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF ProtocolIE-Container {{DSCH-DeleteItemIE-RL-ReconfRqstFDD }}

DSCH-DeleteItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-DSCH-DeleteItem-RL-ReconfRqstFDD      CRITICALITY reject      TYPE      DSCH-DeleteItem-RL-ReconfRqstFDD      PRESENCE      mandatory},
    ...
}

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

DSCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-InformationItemIE-RL-ReconfRqstFDD}}

RL-InformationItemIE-RL-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-RL-InformationItem-RL-ReconfRqstFDD      CRITICALITY      reject      TYPE RL-InformationItem-RL-ReconfRqstFDD
    PRESENCE      mandatory},
    ...
}

RL-InformationItem-RL-ReconfRqstFDD ::= SEQUENCE {
    rL-ID          RL-ID,
    maxDL-Power    DL-Power      OPTIONAL,
    minDL-Power    DL-Power      OPTIONAL,
    iE-Extensions    ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstFDD-ExtIEs} }      OPTIONAL,
    ...
}

RL-InformationItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

-- *****
--
-- RADIO LINK RECONFIGURATION REQUEST TDD
--
-- *****

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

RadioLinkReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-NodeB-CommunicationContextID          CRITICALITY    reject          TYPE    NodeB-CommunicationContextID
      PRESENCE  mandatory } |
    { ID      id-UL-CCTrCH-InformationList-RL-ReconfRqstTDD    CRITICALITY    notify          TYPE    UL-CCTrCH-InformationList-RL-ReconfRqstTDD
      PRESENCE  optional } |
    { ID      id-DL-CCTrCH-InformationList-RL-ReconfRqstTDD    CRITICALITY    notify          TYPE    DL-CCTrCH-InformationList-RL-ReconfRqstTDD
      PRESENCE  optional } |
    { ID      id-DCH-ModifyList-RL-ReconfRqstTDD            CRITICALITY    reject          TYPE    DCH-ModifyList-RL-ReconfRqstTDD
      PRESENCE  optional } |
      { ID      id-DCH-AddList-RL-ReconfRqstTDD              CRITICALITY    reject          TYPE    DCH-AddList-RL-ReconfRqstTDD
        PRESENCE  optional } |
    { ID      id-DCH-DeleteList-RL-ReconfRqstTDD            CRITICALITY    reject          TYPE    DCH-DeleteList-RL-ReconfRqstTDD
      PRESENCE  optional } |
    { ID      id-DSCH-Information-ModifyList-RL-ReconfRqstTDD    CRITICALITY    reject          TYPE    DSCH-Information-ModifyList-RL-ReconfRqstTDD
      PRESENCE  optional } |
    { ID      id-DSCH-Information-AddList-RL-ReconfRqstTDD      CRITICALITY    reject          TYPE    DSCH-Information-AddList-RL-ReconfRqstTDD
      PRESENCE  optional } |
    { ID      id-DSCH-Information-DeleteList-RL-ReconfRqstTDD  CRITICALITY    reject          TYPE    DSCH-Information-DeleteList-RL-ReconfRqstTDD
      PRESENCE  optional } |
    { ID      id-USCH-Information-ModifyList-RL-ReconfRqstTDD  CRITICALITY    reject          TYPE    USCH-Information-ModifyList-RL-ReconfRqstTDD
      PRESENCE  optional } |
    { ID      id-USCH-Information-AddList-RL-ReconfRqstTDD      CRITICALITY    reject          TYPE    USCH-Information-AddList-RL-ReconfRqstTDD
      PRESENCE  optional } |
    { ID      id-USCH-Information-DeleteList-RL-ReconfRqstTDD  CRITICALITY    reject          TYPE    USCH-Information-DeleteList-RL-ReconfRqstTDD
      PRESENCE  optional } |
    { ID      id-RL-Information-RL-ReconfRqstTDD            CRITICALITY    ignore          TYPE    RL-Information-RL-ReconfRqstTDD
      PRESENCE  optional },
    ...
}

RadioLinkReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCH-InformationList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Container {{ UL-CCTrCH-InformationItemIE-RL-ReconfRqstTDD}}

UL-CCTrCH-InformationItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID      id-UL-CCTrCH-InformationItem-RL-ReconfRqstTDD    CRITICALITY    notify          TYPE    UL-CCTrCH-InformationItem-RL-ReconfRqstTDD
      PRESENCE  mandatory },

```

```

}
...
UL-CCTrCH-InformationItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID          CCTrCH-ID,
    tFCS              TFCS          OPTIONAL,
    punctureLimit     PunctureLimit OPTIONAL,
    iE-Extensions     ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}

UL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Container {{ DL-CCTrCH-InformationItemIE-RL-ReconfRqstTDD }}

DL-CCTrCH-InformationItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID      id-DL-CCTrCH-InformationItem-RL-ReconfRqstTDD          CRITICALITY    notify          TYPE DL-CCTrCH-InformationItem-RL-ReconfRqstTDD
      PRESENCE    mandatory},
    ...
}

DL-CCTrCH-InformationItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID          CCTrCH-ID,
    tFCS              TFCS          OPTIONAL,
    punctureLimit     PunctureLimit OPTIONAL,
    iE-Extensions     ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfRqstTDD

DCH-ModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dCH-ID          DCH-ID,
    ul-CCTrCH-ID    CCTrCH-ID          OPTIONAL,
    dl-CCTrCH-ID    CCTrCH-ID          OPTIONAL,
    ul-TransportFormatSet TransportFormatSet OPTIONAL,
    dl-TransportFormatSet TransportFormatSet OPTIONAL,
    frameHandlingPriority FrameHandlingPriority OPTIONAL,
    ul-FP-Mode      UL-FP-Mode          OPTIONAL,
    toAWS           ToAWS              OPTIONAL,
    toAWE           ToAWE              OPTIONAL,
    iE-Extensions  ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfRqstTDD-ExtIEs } }
    ...
    OPTIONAL,
}

```

```
DCH-ModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DCH-AddList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRqstTDD
```

```
DCH-AddItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dCH-ID                      DCH-ID,
    limitedPowerIncrease        LimitedPowerIncrease,
    ul-CCTrCH-ID                CCTrCH-ID,
    dl-CCTrCH-ID                CCTrCH-ID,
    dCH-CombinaionInd           DCH-CombinaionInd           OPTIONAL,
    ul-TransportFormatSet       TransportFormatSet,
    dl-TransportFormatSet       TransportFormatSet,
    frameHandlingPriority        FrameHandlingPriority,
    payloadCRC-PresenceIndicator PayloadCRC-PresenceIndicator,
    ul-FP-Mode                  UL-FP-Mode,
    toAWS                       ToAWS,
    toAWE                       ToAWE,
    iE-Extensions               ProtocolExtensionContainer { { DCH-AddItem-RL-ReconfRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}
```

```
DCH-AddItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DCH-DeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstTDD
```

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

```
DCH-DeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DSCH-Information-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-ModifyItem-RL-ReconfRqstTDD
```

```
DSCH-Information-ModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dSCH-ID                      DSCH-ID,
    cCTrCH-ID                    CCTrCH-ID                    OPTIONAL,
    transportFormatSet           TransportFormatSet           OPTIONAL,
    frameHandlingPriority         FrameHandlingPriority         OPTIONAL,
    toAWS                        ToAWS                        OPTIONAL,
    toAWE                        ToAWE                        OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { DSCH-Information-ModifyItem-RL-ReconfRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}
```

```
DSCH-Information-ModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
```

```

}
...
}
DSCH-Information-AddList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-AddItem-RL-ReconfRqstTDD
DSCH-Information-AddItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dSCH-ID                DSCH-ID,
    cCtRCH-ID              CCTrCH-ID,
    transportFormatSet     TransportFormatSet,
    frameHandlingPriority   FrameHandlingPriority   OPTIONAL,
    toAWS                  ToAWS,
    toAWE                  ToAWE,
    iE-Extensions          ProtocolExtensionContainer { { DSCH-Information-AddItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}
DSCH-Information-AddItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
DSCH-Information-DeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-Information-DeleteItem-RL-ReconfRqstTDD
DSCH-Information-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dSCH-ID                DSCH-ID,
    iE-Extensions          ProtocolExtensionContainer { { DSCH-Information-DeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}
DSCH-Information-DeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
USCH-Information-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-ModifyItem-RL-ReconfRqstTDD
USCH-Information-ModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    uSCH-ID                USCH-ID,
    cCtRCH-ID              CCTrCH-ID                OPTIONAL,
    transportFormatSet     TransportFormatSet        OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { USCH-Information-ModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}
USCH-Information-ModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
USCH-Information-AddList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-AddItem-RL-ReconfRqstTDD
USCH-Information-AddItem-RL-ReconfRqstTDD ::= SEQUENCE {
    uSCH-ID                USCH-ID,
    cCtRCH-ID              CCTrCH-ID,
    transportFormatSet     TransportFormatSet,
    iE-Extensions          ProtocolExtensionContainer { { USCH-Information-AddItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,

```



```

}
...
USCH-Information-AddItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
}
...
USCH-Information-DeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-Information-DeleteItem-RL-ReconfRqstTDD
USCH-Information-DeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    uSCH-ID                USCH-ID,
    iE-Extensions          ProtocolExtensionContainer { { USCH-Information-DeleteItem-RL-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}
USCH-Information-DeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
}
...
RL-Information-RL-ReconfRqstTDD ::= SEQUENCE {
    rL-ID                RL-ID,
    maxDL-Power          DL-Power    OPTIONAL,
    minDL-Power          DL-Power    OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}
RL-InformationItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
}
...
-- *****
--
-- RADIO LINK RECONFIGURATION RESPONSE
--
-- *****

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

RadioLinkReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID          CRITICALITY ignore    TYPE    CRNC-CommunicationContextID
    PRESENCE    mandatory    } |
    { ID    id-RL-InformationResponseList-RL-ReconfRsp    CRITICALITY ignore    TYPE    RL-InformationResponseList-RL-ReconfRsp
    PRESENCE    optional    } |
    { ID    id-CriticalityDiagnostics              CRITICALITY ignore    TYPE    CriticalityDiagnostics
    PRESENCE    optional    },
    ...
}

RadioLinkReconfigurationResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
}
RL-InformationResponseList-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{RL-InformationResponseItemIE-RL-ReconfRsp}}
RL-InformationResponseItemIE-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationResponseItem-RL-ReconfRsp CRITICALITY ignore TYPE RL-InformationResponseItem-RL-ReconfRsp
  PRESENCE mandatory},
  ...
}
RL-InformationResponseItem-RL-ReconfRsp ::= SEQUENCE {
  rL-ID RL-ID,
  dCH-AddList-RL-ReconfRsp DCH-AddList-RL-ReconfRsp OPTIONAL,
  dCH-ModifyList-RL-ReconfRsp DCH-ModifyList-RL-ReconfRsp OPTIONAL,
  dSCH-SetupList-RL-ReconfRsp DSCH-SetupList-RL-ReconfRsp OPTIONAL,
  dSCH-ModifyList-RL-ReconfRsp DSCH-ModifyList-RL-ReconfRsp OPTIONAL,
  uSCH-SetupList-RL-ReconfRsp USCH-SetupList-RL-ReconfRsp OPTIONAL,
  uSCH-ModifyList-RL-ReconfRsp USCH-ModifyList-RL-ReconfRsp OPTIONAL,
  dCH-InformationReponseList-RL-ReconfRsp DCH-InformationReponseList-RL-ReconfRsp OPTIONAL,
  dSCH-InformationReponseList-RL-ReconfRsp DSCH-InformationReponseList-RL-ReconfRsp OPTIONAL,
  uSCH-InformationReponseList-RL-ReconfRsp USCH-InformationReponseList-RL-ReconfRsp OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfRsp-ExtIEs } } OPTIONAL,
  ...
}
RL-InformationResponseItem-RL-ReconfRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
DCH-InformationReponseList-RL-ReconfRsp ::= ProtocolIE-Container {{ DCH-InformationReponseListIEs-RL-ReconfRsp }}
DCH-InformationReponseListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
  { ID id-DCH-InformationResponseListIE-RL-ReconfRsp CRITICALITY ignore TYPE DCH-InformationReponseListIE-RL-ReconfRsp PRESENCE mandatory },
  ...
}
DCH-InformationResponseListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-ReconfRsp
DCH-InformationResponseItem-RL-ReconfRsp ::= SEQUENCE {
  dCH-ID DCH-ID,
  bindingID BindingID,
  transportLayerAddress TransportLayerAddress,
  iE-Extensions ProtocolExtensionContainer { { DCH-InformationResponseItem-RL-ReconfRsp-ExtIEs } } OPTIONAL,
  ...
}
DCH-InformationResponseItem-RL-ReconfRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
DSCH-InformationReponseList-RL-ReconfRsp ::= ProtocolIE-Container {{ DSCH-InformationReponseListIEs-RL-ReconfRsp }}
DSCH-InformationReponseListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-DSCH-InformationResponseListIE-RL-ReconfRsp CRITICALITY ignore TYPE DSCH-InformationReponseListIE-RL-ReconfRsp PRESENCE mandatory },
    ...
}

```

DSCH-InformationResponseListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationReponseItem-RL-ReconfRsp

```

DSCH-InformationReponseItem-RL-ReconfRsp ::= SEQUENCE {
    dSCH-ID DSCH-ID,
    bindingID BindingID,
    transportLayerAddress TransportLayerAddress,
    iE-Extensions ProtocolExtensionContainer { { DSCH-InformationReponseItem-RL-ReconfRsp-ExtIEs } }
    OPTIONAL,
    ...
}

```

DSCH-InformationReponseItem-RL-ReconfRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

    ...
}

```

USCH-InformationReponseList-RL-ReconfRsp ::= ProtocolIE-Container { { USCH-InformationReponseListIEs-RL-ReconfRsp } }

```

USCH-InformationReponseListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponseListIE-RL-ReconfRsp CRITICALITY ignore TYPE USCH-InformationReponseListIE-RL-ReconfRsp PRESENCE mandatory },
    ...
}

```

USCH-InformationResponseListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationReponseItem-RL-ReconfRsp

```

USCH-InformationReponseItem-RL-ReconfRsp ::= SEQUENCE {
    uSCH-ID USCH-ID,
    bindingID BindingID,
    transportLayerAddress TransportLayerAddress,
    iE-Extensions ProtocolExtensionContainer { { USCH-InformationReponseItem-RL-ReconfRsp-ExtIEs } }
    OPTIONAL,
    ...
}

```

USCH-InformationReponseItem-RL-ReconfRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

    ...
}

```

DCH-AddList-RL-ReconfRsp ::= ProtocolIE-Container { { DCH-AddListIEs-RL-ReconfRsp } }

```

DCH-AddListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID id-DCH-AddListIE-RL-ReconfRsp CRITICALITY ignore TYPE DCH-AddListIE-RL-ReconfRsp PRESENCE mandatory },
    ...
}

```

DCH-AddListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRsp

```

DCH-AddItem-RL-ReconfRsp ::= SEQUENCE {
    dCH-ID DCH-ID,
    bindingID BindingID,
    transportLayerAddress TransportLayerAddress,
    iE-Extensions ProtocolExtensionContainer { { DCH-AddItem-RL-ReconfRsp-ExtIEs } }
    OPTIONAL,
}

```

```

}
}
DCH-AddItem-RL-ReconfRsp-ExtIEs-NBAP-PROTOCOL-EXTENSION ::= {
}
DCH-ModifyList-RL-ReconfRsp ::= ProtocolIE-Container {{ DCH-ModifyIEs-RL-ReconfRsp }}
DCH-ModifyIEs-RL-ReconfRsp-NBAP-PROTOCOL-IES ::= {
  { ID id DCH-ModifyListIE-RL-ReconfRsp CRITICALITY ignore TYPE DCH-ModifyListIE-RL-ReconfRsp PRESENCE mandatory },
}
DCH-ModifyListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfRsp
DCH-ModifyItem-RL-ReconfRsp ::= SEQUENCE {
  dCH-ID DCH-ID,
  bindingID BindingID,
  transportLayerAddress TransportLayerAddress,
  iE-Extensions ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfRsp-ExtIEs } } OPTIONAL,
}
DCH-ModifyItem-RL-ReconfRsp-ExtIEs-NBAP-PROTOCOL-EXTENSION ::= {
}
DSCH-SetupList-RL-ReconfRsp ::= ProtocolIE-Container {{ DSCH-SetupListIEs-RL-ReconfRsp }}
DSCH-SetupListIEs-RL-ReconfRsp-NBAP-PROTOCOL-IES ::= {
  { ID id DSCH-SetupListIE-RL-ReconfRsp CRITICALITY ignore TYPE DSCH-SetupListIE-RL-ReconfRsp PRESENCE mandatory },
}
DSCH-SetupListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-SetupItem-RL-ReconfRsp
DSCH-SetupItem-RL-ReconfRsp ::= SEQUENCE {
  dSCH-ID DSCH-ID,
  bindingID BindingID,
  transportLayerAddress TransportLayerAddress,
  iE-Extensions ProtocolExtensionContainer { { DSCH-SetupItem-RL-ReconfRsp-ExtIEs } } OPTIONAL,
}
DSCH-SetupItem-RL-ReconfRsp-ExtIEs-NBAP-PROTOCOL-EXTENSION ::= {
}
DSCH-ModifyList-RL-ReconfRsp ::= ProtocolIE-Container {{ DSCH-ModifyListIEs-RL-ReconfRsp }}
DSCH-ModifyListIEs-RL-ReconfRsp-NBAP-PROTOCOL-IES ::= {
  { ID id DSCH-ModifyListIE-RL-ReconfRsp CRITICALITY ignore TYPE DSCH-ModifyListIE-RL-ReconfRsp PRESENCE mandatory },
}

```

```

}

DSCH-ModifyListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-ModifyItem-RL-ReconfRsp

DSCH-ModifyItem-RL-ReconfRsp ::= SEQUENCE {
    dSCH-ID          DSCH-ID,
    bindingID       BindingID,
    transportLayerAddress TransportLayerAddress,
    iE-Extensions  ProtocolExtensionContainer ( { DSCH-ModifyItem-RL-ReconfRsp-ExtIEs } ) OPTIONAL,
    ...
}

DSCH-ModifyItem-RL-ReconfRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-SetupList-RL-ReconfRsp ::= ProtocolIE-Container ( { USCH-SetupListIEs-RL-ReconfRsp } )

USCH-SetupListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-SetupListIE-RL-ReconfRsp CRITICALITY ignore TYPE USCH-SetupListIE-RL-ReconfRsp PRESENCE mandatory },
    ...
}

USCH-SetupListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-SetupItem-RL-ReconfRsp

USCH-SetupItem-RL-ReconfRsp ::= SEQUENCE {
    uSCH-ID          USCH-ID,
    bindingID       BindingID,
    transportLayerAddress TransportLayerAddress,
    iE-Extensions  ProtocolExtensionContainer ( { USCH-SetupItem-RL-ReconfRsp-ExtIEs } ) OPTIONAL,
    ...
}

USCH-SetupItem-RL-ReconfRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-ModifyList-RL-ReconfRsp ::= ProtocolIE-Container ( { USCH-ModifyListIEs-RL-ReconfRsp } )

USCH-ModifyListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-ModifyListIE-RL-ReconfRsp CRITICALITY ignore TYPE USCH-ModifyListIE-RL-ReconfRsp PRESENCE mandatory },
    ...
}

USCH-ModifyListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-ModifyItem-RL-ReconfRsp

USCH-ModifyItem-RL-ReconfRsp ::= SEQUENCE {
    uSCH-ID          USCH-ID,
    bindingID       BindingID,
    transportLayerAddress TransportLayerAddress,
    iE-Extensions  ProtocolExtensionContainer ( { USCH-ModifyItem-RL-ReconfRsp-ExtIEs } ) OPTIONAL,
    ...
}

```

```
USCH-ModifyItem-RL-ReconfRsp-ExtIEs-NBAP-PROTOCOL-EXTENSION ::= {  
    ...  
}
```

.. Text Omitted..

## 9.3.7 Constant Definitions for NBAP

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

NBAP-Constants -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- *****
--
-- Elementary Procedures
--
-- *****

id-audit                    INTEGER ::= 0
id-auditRequired            INTEGER ::= 1
id-blockResource            INTEGER ::= 2
id-cellDeletion             INTEGER ::= 3
id-cellReconfiguration      INTEGER ::= 4
id-cellSetup                INTEGER ::= 5
id-commonMeasurementFailure INTEGER ::= 6
id-commonMeasurementInitiation INTEGER ::= 7
id-commonMeasurementReport  INTEGER ::= 8
id-commonMeasurementTermination INTEGER ::= 9
id-commonTransportChannelDelete INTEGER ::= 10
id-commonTransportChannelReconfigure INTEGER ::= 11
id-commonTransportChannelSetup INTEGER ::= 12
id-compressedModeCancellation INTEGER ::= 13
id-compressedModeCommit     INTEGER ::= 14
id-compressedModePreparation INTEGER ::= 15
id-dedicatedMeasurementFailure INTEGER ::= 16
id-dedicatedMeasurementInitiation INTEGER ::= 17
id-dedicatedMeasurementReport INTEGER ::= 18
id-dedicatedMeasurementTermination INTEGER ::= 19
id-downlinkPowerControl    INTEGER ::= 20
id-errorIndication          INTEGER ::= 21
id-physicalSharedChannelReconfiguration INTEGER ::= 37
id-privateMessage           INTEGER ::= 22
id-radioLinkAddition        INTEGER ::= 23
id-radioLinkDeletion        INTEGER ::= 24
id-radioLinkFailure         INTEGER ::= 25
id-radioLinkRestoration     INTEGER ::= 26
id-radioLinkSetup           INTEGER ::= 27
id-resourceStatusIndication INTEGER ::= 28
id-synchronisedRadioLinkReconfigurationCancellation INTEGER ::= 29
```

```
id-synchronisedRadioLinkReconfigurationCommit      INTEGER ::= 30
id-synchronisedRadioLinkReconfigurationPreparation  INTEGER ::= 31
id-systemInformationUpdate                         INTEGER ::= 32
id-unblockResource                                INTEGER ::= 33
id-unSynchronisedRadioLinkReconfiguration          INTEGER ::= 34
```

```
-- *****
--
-- Extension constants
--
-- *****
```

```
maxPrivateIEs          INTEGER ::= 65535
maxProtocolExtensions  INTEGER ::= 65535
maxProtocolIEs         INTEGER ::= 65535
```

```
-- *****
--
-- Lists
--
-- *****
```

```
maxNrOfCodes          INTEGER ::= 10
maxNrOfCMpatterns     INTEGER ::= 8
maxNrOfDLCodes        INTEGER ::= 10
maxNrOfErrors         INTEGER ::= 10
maxNrOfTFs            INTEGER ::= 10
maxNrOfTFCS           INTEGER ::= 10
maxNrOfRLLs           INTEGER ::= 10
maxNrOfRLLSets        INTEGER ::= 10
maxNrOfDPCHs          INTEGER ::= 10
maxNrOfSCCPCHs        INTEGER ::= 10
maxNrOfPRACHs         INTEGER ::= 10
maxNrOfDCHs           INTEGER ::= 10
maxNrOfDSCHs          INTEGER ::= 10
maxNrOfFACHs          INTEGER ::= 10
maxNrOfCCTrCHs        INTEGER ::= 10
maxNrOfPDSCHs         INTEGER ::= 10
maxNrOfPDSCHSets      INTEGER ::= 10
maxNrOfPUSCHSets      INTEGER ::= 10
maxNrOfULTSs          INTEGER ::= 15
maxNrOfUSCHs          INTEGER ::= 10
maxSF                 INTEGER ::= 10
maxCellInNodeB        INTEGER ::= 10
maxCCPinNodeB         INTEGER ::= 10
maxCTFC-1             INTEGER ::= 10
maxLocalCellInNodeB   INTEGER ::= 10
maxRACHCell           INTEGER ::= 10
maxPRACHCell          INTEGER ::= 10
maxSCCPCHCell         INTEGER ::= 10
maxSPICHCell          INTEGER ::= 10
maxTTI-count          INTEGER ::= 10
```



```

maxIBSEG                INTEGER ::= 10
maxIB                   INTEGER ::= 10
maxFACHCell             INTEGER ::= 10
maxRateMatching         INTEGER ::= 10
maxCodeNrComp-1        INTEGER ::= 10
maxNrOfCodeGroups       INTEGER ::= 10
maxNrOfTFCIGroups       INTEGER ::= 10
maxNrOfTFCI1Combs       INTEGER ::= 10
maxNrOfTFCI2Combs       INTEGER ::= 10
maxCTFC-DCH-1           INTEGER ::= 10
maxCTFC-DSCH-1         INTEGER ::= 10
maxNrOfSF               INTEGER ::= 8

-- *****
--
-- IES
--
-- *****

id-AICH-InformationItem-AuditRsp                INTEGER ::= 0
id-AICH-InformationItem-ResourceStatusInd        INTEGER ::= 1
id-AICH-ParametersList-CTCH-ReconfRqstFDD       INTEGER ::= 2
id-AllRLItem-DM-Rprt                            INTEGER ::= 3
id-AllRLItem-DM-Rsp                              INTEGER ::= 4
id-AllRLItem-Set-DM-Rprt                        INTEGER ::= 5
id-AllRLItem-Set-DM-Rsp                          INTEGER ::= 6
id-BCH-InformationItem-AuditRsp                 INTEGER ::= 7
id-BCH-InformationItem-ResourceStatusInd         INTEGER ::= 8
id-BCCH-ModificationTime                       INTEGER ::= 9
id-BlockingPriorityIndicator                    INTEGER ::= 10
id-Case1Item-Cell-SetupRqstTDD                  INTEGER ::= 11
id-Case2Item-Cell-SetupRqstTDD                  INTEGER ::= 12
id-Cause                                         INTEGER ::= 13
id-CCP-InformationItem-AuditRsp                 INTEGER ::= 14
id-CCP-InformationList-AuditRsp                 INTEGER ::= 15
id-CCP-InformationItem-ResourceStatusInd         INTEGER ::= 16
id-Cell-InformationItem-AuditRsp                INTEGER ::= 17
id-Cell-InformationItem-ResourceStatusInd        INTEGER ::= 18
id-Cell-InformationList-AuditRsp                INTEGER ::= 19
id-CellItem-CM-Rprt                             INTEGER ::= 20
id-CellItem-CM-Rqst                             INTEGER ::= 21
id-CellItem-CM-Rsp                              INTEGER ::= 22
id-CellParameterID                             INTEGER ::= 23
id-CFN                                           INTEGER ::= 24
id-C-ID                                          INTEGER ::= 25
id-CombiningItem-RL-AdditionFailureFDD          INTEGER ::= 26
id-CombiningItem-RL-AdditionRspFDD              INTEGER ::= 27
id-CombiningItem-RL-AdditionRspTDD              INTEGER ::= 28
id-CombiningItem-RL-SetupFailureFDD             INTEGER ::= 29
id-CombiningItem-RL-SetupRspFDD                 INTEGER ::= 30
id-CommonMeasurementObjectType-CM-Rprt          INTEGER ::= 31
id-CommonMeasurementObjectType-CM-Rqst          INTEGER ::= 32
id-CommonMeasurementObjectType-CM-Rsp           INTEGER ::= 33
id-CommonMeasurementType                       INTEGER ::= 34

```

id-CommonPhysicalChannelID	INTEGER ::= 35
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD	INTEGER ::= 36
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD	INTEGER ::= 37
id-CommonTransportChannelType-CTCH-ReconfRqstTDD	INTEGER ::= 38
id-CommonTransportChannelType-CTCH-SetupRsp	INTEGER ::= 39
id-CommunicationControlPortID	INTEGER ::= 40
id-CM-PatternInformationItem-CompressedModePrep	INTEGER ::= 41
id-CM-PatternInformationList-CompressedModePrep	INTEGER ::= 42
id-ConfigurationGenerationID	INTEGER ::= 43
id-CRNC-CommunicationContextID	INTEGER ::= 44
id-CriticalityDiagnostics	INTEGER ::= 45
<del>id-DCH-AddListIE-RL-ReconfReady</del>	<del>INTEGER ::= 46</del>
<del>id-DCH-AddListIE-RL-ReconfRsp</del>	<del>INTEGER ::= 47</del>
id-DCH-AddList-RL-ReconfPrepFDD	INTEGER ::= 48
id-DCH-AddList-RL-ReconfPrepTDD	INTEGER ::= 49
id-DCH-AddList-RL-ReconfRqstFDD	INTEGER ::= 50
id-DCH-AddList-RL-ReconfRqstTDD	INTEGER ::= 51
id-DCH-DeleteList-RL-ReconfPrepFDD	INTEGER ::= 52
id-DCH-DeleteList-RL-ReconfPrepTDD	INTEGER ::= 53
id-DCH-DeleteList-RL-ReconfRqstFDD	INTEGER ::= 54
id-DCH-DeleteList-RL-ReconfRqstTDD	INTEGER ::= 55
id-DCH-InformationList-RL-SetupRqstFDD	INTEGER ::= 56
id-DCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 57
<del>id-DCH-InformationResponseListIE-RL-ReconfReady</del>	<del>INTEGER ::= xx</del>
<del>id-DCH-InformationResponseListIE-RL-ReconfRsp</del>	<del>INTEGER ::= xx</del>
id-DCH-InformationResponseItem-RL-SetupRspTDD	INTEGER ::= 58
id-DCH-InformationResponseListIE-RL-SetupRspTDD	INTEGER ::= 59
<del>id-DCH-ModifyListIE-RL-ReconfReady</del>	<del>INTEGER ::= 60</del>
<del>id-DCH-ModifyListIE-RL-ReconfRsp</del>	<del>INTEGER ::= 61</del>
id-DCH-ModifyList-RL-ReconfPrepFDD	INTEGER ::= 62
id-DCH-ModifyList-RL-ReconfPrepTDD	INTEGER ::= 63
id-DCH-ModifyList-RL-ReconfRqstFDD	INTEGER ::= 64
id-DCH-ModifyList-RL-ReconfRqstTDD	INTEGER ::= 65
id-DedicatedMeasurementObjectType	INTEGER ::= 66
id-DedicatedMeasurementObjectType-DM-Rprt	INTEGER ::= 67
id-DedicatedMeasurementObjectType-DM-Rqst	INTEGER ::= 68
id-DedicatedMeasurementObjectType-DM-Rsp	INTEGER ::= 69
id-DedicatedMeasurementType	INTEGER ::= 70
id-DL-CCTrCH-InformationItem-RL-ReconfRqstTDD	INTEGER ::= 71
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD	INTEGER ::= 72
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD	INTEGER ::= 73
id-DL-CCTrCH-InformationList-RL-ReconfPrepTDD	INTEGER ::= 74
id-DL-CCTrCH-InformationList-RL-ReconfRqstTDD	INTEGER ::= 75
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 76
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD	INTEGER ::= 77
id-DL-DPCH-InformationList-RL-AdditionRqstTDD	INTEGER ::= 78
id-DL-DPCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 79
id-DL-DPCH-InformationListIE-RL-ReconfPrepTDD	INTEGER ::= 80
id-DL-DPCH-Information-RL-ReconfPrepFDD	INTEGER ::= 81
id-DL-DPCH-Information-RL-ReconfRqstFDD	INTEGER ::= 82
id-DL-DPCH-Information-RL-SetupRqstFDD	INTEGER ::= 83
id-DL-ReferencePowerInformationItem-DL-PC-Rqst	INTEGER ::= 84
id-DLReferencePower	INTEGER ::= 85
id-DLReferencePowerList-DL-PC-Rqst	INTEGER ::= 86

id-DSCH-AddItem-RL-ReconfPrepFDD	INTEGER ::= 87
id-DSCH-AddItem-RL-ReconfRqstFDD	INTEGER ::= 88
id-DSCH-AddList-RL-ReconfPrepFDD	INTEGER ::= 89
id-DSCH-AddList-RL-ReconfRqstFDD	INTEGER ::= 90
id-DSCH-DeleteItem-RL-ReconfPrepFDD	INTEGER ::= 91
id-DSCH-DeleteItem-RL-ReconfRqstFDD	INTEGER ::= 92
id-DSCH-DeleteList-RL-ReconfPrepFDD	INTEGER ::= 93
id-DSCH-DeleteList-RL-ReconfRqstFDD	INTEGER ::= 94
id-DSCH-ID	INTEGER ::= 95
id-DSCH-information-AddList-RL-ReconfPrepTDD	INTEGER ::= 96
id-DSCH-Information-AddList-RL-ReconfRqstTDD	INTEGER ::= 97
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD	INTEGER ::= 98
id-DSCH-Information-DeleteList-RL-ReconfRqstTDD	INTEGER ::= 99
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD	INTEGER ::= 100
id-DSCH-Information-ModifyList-RL-ReconfRqstTDD	INTEGER ::= 101
id-DSCH-InformationResponseListIE-RL-AdditionRspTDD	INTEGER ::= 102
<del>id-DSCH-InformationResponseListIE-RL-ReconfReady</del>	<del>INTEGER ::= xxx</del>
<del>id-DSCH-InformationResponseListIE-RL-ReconfRsp</del>	<del>INTEGER ::= xxx</del>
id-DSCH-InformationRespListIE-RL-SetupFailureFDD	INTEGER ::= 103
id-DSCH-InformationResponseListIE-RL-SetupRspFDD	INTEGER ::= 104
id-DSCH-InformationResponseListIE-RL-SetupRspTDD	INTEGER ::= 105
id-DSCH-InformationList-RL-SetupRqstFDD	INTEGER ::= 106
id-DSCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 107
id-DSCH-ModifyItem-RL-ReconfPrepFDD	INTEGER ::= 108
id-DSCH-ModifyItem-RL-ReconfRqstFDD	INTEGER ::= 109
<del>id-DSCH-ModifyListIE-RL-ReconfReady</del>	<del>INTEGER ::= 110</del>
<del>id-DSCH-ModifyListIE-RL-ReconfRsp</del>	<del>INTEGER ::= 111</del>
id-DSCH-ModifyList-RL-ReconfPrepFDD	INTEGER ::= 112
id-DSCH-ModifyList-RL-ReconfRqstFDD	INTEGER ::= 113
<del>id-DSCH-SetupListIE-RL-ReconfReady</del>	<del>INTEGER ::= 114</del>
<del>id-DSCH-SetupListIE-RL-ReconfRsp</del>	<del>INTEGER ::= 115</del>
id-FACH-InformationItem-AuditRsp	INTEGER ::= 116
id-FACH-InformationItem-ResourceStatusInd	INTEGER ::= 117
id-FACHItem-CTCH-SetupRsp	INTEGER ::= 118
id-FACH-ParametersList-CTCH-ReconfRqstFDD	INTEGER ::= 119
id-FACH-ParametersList-CTCH-ReconfRqstTDD	INTEGER ::= 120
id-FACH-ParametersListIE-CTCH-SetupRqstFDD	INTEGER ::= 121
id-FACH-ParametersListIE-CTCH-SetupRqstTDD	INTEGER ::= 122
id-IndicationType-ResourceStatusInd	INTEGER ::= 123
id-Local-Cell-ID	INTEGER ::= 124
id-Local-Cell-InformationItem-AuditRsp	INTEGER ::= 125
id-Local-Cell-InformationItem-ResourceStatusInd	INTEGER ::= 126
id-Local-Cell-InformationItem2-ResourceStatusInd	INTEGER ::= 127
id-Local-Cell-InformationList-AuditRsp	INTEGER ::= 128
id-MaxAdjustmentPeriod	INTEGER ::= 129
id-MaxAdjustmentStep	INTEGER ::= 130
id-MaximumTransmissionPower	INTEGER ::= 131
id-MeasurementFilterCoefficient	INTEGER ::= 132
id-MeasurementID	INTEGER ::= 133
id-MIB-SIB-InformationList-SystemInfoUpdateRqst	INTEGER ::= 134
id-NodeBInformation-AuditRep	INTEGER ::= 135
id-No-DeletionItem-SystemInfoUpdate	INTEGER ::= 136
id-No-FailureItem-ResourceStatusInd	INTEGER ::= 137
id-Non-CombiningItem-RL-AdditionFailureFDD	INTEGER ::= 138

id-Non-CombiningItem-RL-AdditionRspFDD	INTEGER ::= 139
id-Non-CombiningItem-RL-AdditionRspTDD	INTEGER ::= 140
id-NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD	INTEGER ::= 141
id-NonCombiningOrIENotPrsentItem-RL-SetupRspFDD	INTEGER ::= 142
id-NodeB-CommunicationContextID	INTEGER ::= 143
id-P-CCPCH-InformationItem-AuditRsp	INTEGER ::= 144
id-P-CCPCH-InformationItem-ResourceStatusInd	INTEGER ::= 145
id-P-CPICH-InformationItem-AuditRsp	INTEGER ::= 146
id-P-CPICH-InformationItem-ResourceStatusInd	INTEGER ::= 147
id-P-SCH-InformationItem-AuditRsp	INTEGER ::= 148
id-P-SCH-InformationItem-ResourceStatusInd	INTEGER ::= 149
id-PCCPCH-Information-Cell-ReconfRqstTDD	INTEGER ::= 150
id-PCCPCH-Information-Cell-SetupRqstTDD	INTEGER ::= 151
id-PCH-InformationItem-ResourceStatusInd	INTEGER ::= 152
id-PCHItem-CTCH-SetupRsp	INTEGER ::= 153
id-PCH-Parameters-CTCH-ReconfRqstFDD	INTEGER ::= 154
id-PCH-Parameters-CTCH-ReconfRqstTDD	INTEGER ::= 155
id-PCH-ParametersItem-CTCH-SetupRqstFDD	INTEGER ::= 156
id-PCH-ParametersItem-CTCH-SetupRqstTDD	INTEGER ::= 157
id-PCH-InformationItem-AuditRsp	INTEGER ::= 158
id-PICH-InformationItem-ResourceStatusInd	INTEGER ::= 159
id-PD	INTEGER ::= 160
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst	INTEGER ::= 161
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst	INTEGER ::= 162
id-PDSCHSets-AddList-PSCH-ReconfRqst	INTEGER ::= 163
id-PDSCHSets-DeleteList-PSCH-ReconfRqst	INTEGER ::= 164
id-PDSCHSets-ModifyList-PSCH-ReconfRqst	INTEGER ::= 165
id-PICH-InformationItem-AuditRsp	INTEGER ::= 166
id-PICH-Parameters-CTCH-ReconfRqstFDD	INTEGER ::= 167
id-PICH-Parameters-CTCH-ReconfRqstTDD	INTEGER ::= 168
id-PowerAdjustmentType	INTEGER ::= 169
id-PRACH-InformationItem-AuditRsp	INTEGER ::= 170
id-PRACH-InformationItem-ResourceStatusInd	INTEGER ::= 171
id-PRACHItem-CTCH-SetupRqstFDD	INTEGER ::= 172
id-PRACHItem-CTCH-SetupRqstTDD	INTEGER ::= 173
id-PRACH-ParametersList-CTCH-ReconfRqstFDD	INTEGER ::= 174
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD	INTEGER ::= 175
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD	INTEGER ::= 176
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD	INTEGER ::= 177
id-PrimaryCPICH-Information-Cell-SetupRqstFDD	INTEGER ::= 178
id-PrimarySCH-Information-Cell-ReconfRqstFDD	INTEGER ::= 179
id-PrimarySCH-Information-Cell-SetupRqstFDD	INTEGER ::= 180
id-PrimaryScramblingCode	INTEGER ::= 181
id-ProcedureScopeType-DL-PC-Rqst	INTEGER ::= 182
id-SCH-Information-Cell-ReconfRqstTDD	INTEGER ::= 183
id-SCH-Information-Cell-SetupRqstTDD	INTEGER ::= 184
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst	INTEGER ::= 185
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst	INTEGER ::= 186
id-PUSCHSets-AddList-PSCH-ReconfRqst	INTEGER ::= 187
id-PUSCHSets-DeleteList-PSCH-ReconfRqst	INTEGER ::= 188
id-PUSCHSets-ModifyList-PSCH-ReconfRqst	INTEGER ::= 189
id-RACH-InformationItem-AuditRsp	INTEGER ::= 190
id-RACH-InformationItem-ResourceStatusInd	INTEGER ::= 191
id-RACHItem-CTCH-SetupRsp	INTEGER ::= 192

id-RACHItem-CM-Rprt	INTEGER ::= 193
id-RACHItem-CM-Rqst	INTEGER ::= 194
id-RACHItem-CM-Rsp	INTEGER ::= 195
id-RACH-ParametersItem-CTCH-SetupRqstFDD	INTEGER ::= 196
id-RACH-ParameterItem-CTCH-SetupRqstTDD	INTEGER ::= 197
id-ReportCharacteristics	INTEGER ::= 198
id-Reporting-Object-RL-FailureInd	INTEGER ::= 199
id-Reporting-Object-RL-RestoreInd	INTEGER ::= 200
id-RL-ID	INTEGER ::= 201
id-RL-InformationItem-DM-Rprt	INTEGER ::= 202
id-RL-InformationItem-DM-Rqst	INTEGER ::= 203
id-RL-InformationItem-DM-Rsp	INTEGER ::= 204
id-RL-InformationItem-RL-AdditionRqstFDD	INTEGER ::= 205
id-RL-informationItem-RL-DeletionRqst	INTEGER ::= 206
id-RL-InformationItem-RL-FailureInd	INTEGER ::= 207
id-RL-InformationItem-RL-ReconfPrepFDD	INTEGER ::= 208
id-RL-InformationItem-RL-ReconfRqstFDD	INTEGER ::= 209
id-RL-InformationItem-RL-RestoreInd	INTEGER ::= 210
id-RL-InformationItem-RL-SetupRqstFDD	INTEGER ::= 211
id-RL-InformationList-RL-AdditionRqstFDD	INTEGER ::= 212
id-RL-informationList-RL-DeletionRqst	INTEGER ::= 213
id-RL-InformationList-RL-ReconfPrepFDD	INTEGER ::= 214
id-RL-InformationList-RL-ReconfRqstFDD	INTEGER ::= 215
id-RL-InformationList-RL-SetupRqstFDD	INTEGER ::= 216
id-RL-InformationResponseItem-RL-AdditionRspFDD	INTEGER ::= 217
id-RL-InformationResponseItem-RL-ReconfReady	INTEGER ::= 218
id-RL-InformationResponseItem-RL-ReconfRsp	INTEGER ::= 219
id-RL-InformationResponseItem-RL-SetupRspFDD	INTEGER ::= 220
id-RL-InformationResponseList-RL-AdditionRspFDD	INTEGER ::= 221
id-RL-InformationResponseList-RL-ReconfReady	INTEGER ::= 222
id-RL-InformationResponseList-RL-ReconfRsp	INTEGER ::= 223
id-RL-InformationResponseList-RL-SetupRspFDD	INTEGER ::= 224
id-RL-InformationResponse-RL-AdditionRspTDD	INTEGER ::= 225
id-RL-InformationResponse-RL-SetupRspTDD	INTEGER ::= 226
id-RL-Information-RL-AdditionRqstTDD	INTEGER ::= 227
id-RL-Information-RL-ReconfRqstTDD	INTEGER ::= 228
id-RL-Information-RL-ReconfPrepTDD	INTEGER ::= 229
id-RL-Information-RL-SetupRqstTDD	INTEGER ::= 230
id-RLItem-DM-Rprt	INTEGER ::= 231
id-RLItem-DM-Rqst	INTEGER ::= 232
id-RLItem-DM-Rsp	INTEGER ::= 233
id-RLItem-RL-FailureInd	INTEGER ::= 234
id-RLItem-RL-RestoreInd	INTEGER ::= 235
id-RL-ReconfigurationFailureItem-RL-ReconfFailure	INTEGER ::= 236
id-RL-ReconfigurationFailureList-RL-ReconfFailure	INTEGER ::= 237
id-RL-Set-InformationItem-DM-Rprt	INTEGER ::= 238
id-RL-SetItem-DM-Rqst	INTEGER ::= 239
id-RL-Set-InformationItem-DM-Rsp	INTEGER ::= 240
id-RL-Set-InformationItem-RL-FailureInd	INTEGER ::= 241
id-RL-Set-InformationItem-RL-RestoreInd	INTEGER ::= 242
id-RL-SetItem-DM-Rprt	INTEGER ::= 243
id-RL-SetItem-DM-Rsp	INTEGER ::= 244
id-RL-SetItem-RL-FailureInd	INTEGER ::= 245
id-RL-SetItem-RL-RestoreInd	INTEGER ::= 246

id-S-CCPCH-InformationItem-AuditRsp	INTEGER ::= 247
id-S-CCPCH-InformationItem-ResourceStatusInd	INTEGER ::= 248
id-S-CPICH-InformationItem-AuditRsp	INTEGER ::= 249
id-S-CPICH-InformationItem-ResourceStatusInd	INTEGER ::= 250
id-SCH-InformationItem-AuditRsp	INTEGER ::= 251
id-SCH-InformationItem-ResourceStatusInd	INTEGER ::= 252
id-S-SCH-InformationItem-AuditRsp	INTEGER ::= 253
id-S-SCH-InformationItem-ResourceStatusInd	INTEGER ::= 254
id-Secondary-CCPCHItem-CTCH-SetupRqstFDD	INTEGER ::= 255
id-Secondary-CCPCHItem-CTCH-SetupRqstTDD	INTEGER ::= 256
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD	INTEGER ::= 257
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD	INTEGER ::= 258
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD	INTEGER ::= 259
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD	INTEGER ::= 260
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD	INTEGER ::= 261
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD	INTEGER ::= 262
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD	INTEGER ::= 263
id-SecondarySCH-Information-Cell-ReconfRqstFDD	INTEGER ::= 264
id-SecondarySCH-Information-Cell-SetupRqstFDD	INTEGER ::= 265
id-SegmentInformationListIE-SystemInfoUpdate	INTEGER ::= 266
id-ServiceImpactingItem-ResourceStatusInd	INTEGER ::= 267
id-SFN	INTEGER ::= 268
id-ShutdownTimer	INTEGER ::= 269
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD	INTEGER ::= 270
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD	INTEGER ::= 271
id-Successful-RL-InformationRespList-RL-AdditionFailureFDD	INTEGER ::= 272
id-Successful-RL-InformationRespList-RL-SetupFailureFDD	INTEGER ::= 273
id-SyncCase	INTEGER ::= 274
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id-TimeSlotConfigurationList-Cell-ReconfRqstTDD	INTEGER ::= 277
id-TimeSlotConfigurationList-Cell-SetupRqstTDD	INTEGER ::= 278
id-TransmissionDiversityApplied	INTEGER ::= 279
id-UARFCNforNt	INTEGER ::= 280
id-UARFCNforNd	INTEGER ::= 281
id-UARFCNforNu	INTEGER ::= 282
id-UL-CCTrCH-InformationItem-RL-ReconfRqstTDD	INTEGER ::= 283
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD	INTEGER ::= 284
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD	INTEGER ::= 285
id-UL-CCTrCH-InformationList-RL-ReconfPrepTDD	INTEGER ::= 286
id-UL-CCTrCH-InformationList-RL-ReconfRqstTDD	INTEGER ::= 287
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 288
id-UL-DPCH-InformationItem-RL-AdditionRqstTDD	INTEGER ::= 289
id-UL-DPCH-InformationList-RL-AdditionRqstTDD	INTEGER ::= 290
id-UL-DPCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 291
id-UL-DPCH-InformationListIE-RL-ReconfPrepTDD	INTEGER ::= 292
id-UL-DPCH-Information-RL-ReconfPrepFDD	INTEGER ::= 293
id-UL-DPCH-Information-RL-ReconfRqstFDD	INTEGER ::= 294
id-UL-DPCH-Information-RL-SetupRqstFDD	INTEGER ::= 295
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD	INTEGER ::= 296
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD	INTEGER ::= 297
id-Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD	INTEGER ::= 298
id-Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD	INTEGER ::= 299
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD	INTEGER ::= 300

id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD	INTEGER ::= 301
id-USCH-information-AddList-RL-ReconfPrepTDD	INTEGER ::= 302
id-USCH-Information-AddList-RL-ReconfRqstTDD	INTEGER ::= 303
id-USCH-Information-DeleteList-RL-ReconfPrepTDD	INTEGER ::= 304
id-USCH-Information-DeleteList-RL-ReconfRqstTDD	INTEGER ::= 305
id-USCH-Information-ModifyList-RL-ReconfPrepTDD	INTEGER ::= 306
id-USCH-Information-ModifyList-RL-ReconfRqstTDD	INTEGER ::= 307
id-USCH-InformationResponseListIE-RL-AdditionRspTDD	INTEGER ::= 308
id-USCH-InformationResponseListIE-RL-ReconfReady	INTEGER ::= xxx
<del>id-USCH-InformationResponseListIE-RL-ReconfRsp</del>	<del>INTEGER ::= xxx</del>
id-USCH-InformationResponseListIE-RL-SetupRspTDD	INTEGER ::= 309
id-USCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 310
<del>id-USCH-ModifyListIE-RL-ReconfReady</del>	<del>INTEGER ::= 311</del>
<del>id-USCH-ModifyListIE-RL-ReconfRsp</del>	<del>INTEGER ::= 312</del>
<del>id-USCH-SetupListIE-RL-ReconfReady</del>	<del>INTEGER ::= 313</del>
<del>id-USCH-SetupListIE-RL-ReconfRsp</del>	<del>INTEGER ::= 314</del>

END

**3GPP-RAN-WG3 Meeting #12**  
**Seoul, Korea, April 10-13 2000**

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

<b>CHANGE REQUEST</b>		Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.	
<b>25.433</b>	<b>CR 100r1</b>	Current Version:	<b>3.1.0</b>
GSM (AA.BB) or 3G (AA.BBB) specification number ↑	↑ CR number as allocated by MCC support team		
For submission to: <b>TSG RAN#8</b>	for approval <input checked="" type="checkbox"/>	strategic <input type="checkbox"/>	(for SMG use only)
list expected approval meeting # here ↑	for information <input type="checkbox"/>	non-strategic <input type="checkbox"/>	

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

**Proposed change affects:** (U)SIM  ME  UTRAN / Radio  Core Network   
 (at least one should be marked with an X)

**Source:** R-WG3 **Date:** April 10, 2000

**Subject:** Modification to TFS definition [NBAP]

**Work item:**

<b>Category:</b>	F Correction <input checked="" type="checkbox"/> A Corresponds to a correction in an earlier release <input type="checkbox"/> B Addition of feature <input type="checkbox"/> C Functional modification of feature <input type="checkbox"/> D Editorial modification <input type="checkbox"/>	<b>Release:</b>	Phase 2 <input type="checkbox"/> Release 96 <input type="checkbox"/> Release 97 <input type="checkbox"/> Release 98 <input type="checkbox"/> Release 99 <input checked="" type="checkbox"/> Release 00 <input type="checkbox"/>
------------------	--	-----------------	--

(only one category Shall be marked With an X)

**Reason for change:** The range of Transport Block size shall start from 0 instead of 1. This change is proposed in accordance with the agreement on R1-000278.

**Clauses affected:** 9.2.1.55 Transport Format Set  
 9.3.4 Information Element Definitions

**Other specs Affected:**

Other 3G core specifications	"> <input type="checkbox"/>	→ List of CRs:
Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:
MS test specifications	<input type="checkbox"/>	→ List of CRs:
BSS test specifications	<input type="checkbox"/>	→ List of CRs:
O&M specifications	<input type="checkbox"/>	→ List of CRs:

**Other comments:**



help.doc

<----- double-click here for help and instructions on how to create a CR.



## 9.2.1.55 TFS (Transport Format Set)

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transport Format Set				
<b>Dynamic Transport Format Information</b>		1 to <maxTFcount>		
>Number of Transport blocks	M		INTEGER (0..4095)	
>Transport Block Size	C – Blocks		INTEGER (40..5000)	Bits
>CHOICE mode				
>>TDD				
>>>Transmission time interval	C-TTIdynamic	1 to <maxTTIcount>	Enumerated(10, 20, 40, 80)	
<b>Semi-static Transport Format Information</b>				
>Transmission time interval	C-TTIsemistatic		ENUMERATED (10, 20, 40, 80)	msec
>Type of channel coding	M		ENUMERATED (No coding, Convolutional, Turbo)	
>Coding Rate	C – Coding		ENUMERATED (1/2, 1/3)	
>Rate matching attribute	M		INTEGER (1..maxRM)	
>CRC size	M		ENUMERATED (0, 8, 12, 16, 24)	
>CHOICE mode				
>>TDD				
>>>2 <sup>nd</sup> interleaving mode	M		Enumerated(Frame related, Timeslot related)	

Condition	Explanation
Blocks	This IE is only present if "Number of Transport Blocks" is greater than 0.
Coding	This IE is only present if IE "Type of channel coding" is "Convolutional" or "Turbo"
<i>TTIdynamic</i>	This IE is mandatory if not defined as semistatic parameter. Otherwise it is absent.
<i>TTIsemistatic</i>	This IE is mandatory if not defined as dynamic parameter. Otherwise it is absent.

Range bound	Explanation
MaxTFcount	Maximum number of different transport formats that can be included in the Transport format set for one transport channel is 32.
MaxRM	Maximum number that could be set as rate matching attribute for a transport channel.
<i>MaxTTIcount</i>	The amount of different TTI that are possible for that transport format is 4.

## 9.3.4 Information Element Definitions

--- partly omitted ---

```

-- =====
-- T
-- =====

T-Cell ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    v4,
    v5,
    v6,
    v7,
    v8,
    v9,
    ...
}

TDD-ChannelisationCode ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
    ...
}

TDD-PhysicalChannelOffset ::= INTEGER (0..63)

TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}

TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors      SEQUENCE {
        betaC                  BetaCD,
        betaD                  BetaCD,
        refTFCNumber           RefTFCNumber OPTIONAL
    },
    computedGainFactors       RefTFCNumber
}

TFCI-Coding ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    ...
}

```

```

TFCI-Presence ::= ENUMERATED {
    present,
    not-present,
    ...
}

TFCI-SignallingMode ::= SEQUENCE {
    tFCI-SignallingOption          TFCI-SignallingMode-TFCI-SignallingOption,
    splitType                      TFCI-SignallingMode-SplitType                OPTIONAL,
    -- This IE is only present if TFCI signalling option is split --
    lengthOfTFCI2                  TFCI-SignallingMode-LengthOfTFCI2          OPTIONAL,
    -- This IE is only present if split type is logical --
    iE-Extensions                  ProtocolExtensionContainer { { TFCI-SignallingMode-ExtIEs} }
    OPTIONAL,
    ...
}

TFCI-SignallingMode-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCI-SignallingMode-LengthOfTFCI2 ::= INTEGER (1..10)

TFCI-SignallingMode-SplitType ::= ENUMERATED {
    hard,
    logical,
    ...
}

TFCI-SignallingMode-TFCI-SignallingOption ::= ENUMERATED {
    normal,
    split,
    ...
}

TGD ::= INTEGER (0..3839)

TGL ::= INTEGER (3| 4| 7| 10| 14)

TimeSlot ::= INTEGER (0..14)

TimeSlotDirection ::= ENUMERATED {
    ul,
    dl,
    ...
}

TimeSlot-ISCP-Value ::= INTEGER (0..81)
-- According to mapping in 25.225

TimeSlot-ISCP-Value-IncrDecrThres ::= INTEGER (0..80)

TimeSlotStatus ::= ENUMERATED {
    active,
    not-active,
    ...
}

ToAWE ::= INTEGER (0..2559)
-- Unit ms

ToAWS ::= INTEGER (0..1279)
-- Unit ms

Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- According to mapping in 25.215/25.225

Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in 25.215/25.225

Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)

TransmissionDiversityApplied ::= BOOLEAN
-- true: applied, false: not applied

TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive,
    ...
}

TFCS ::= SEQUENCE {
    dSCH                            CHOICE {
        no-Split-in-TFCI            TFCS-TFCSList,
        split-in-TFCI              SEQUENCE {
            transportFormatCombination-DCH    TFCS-DCHList,

```

```

        signallingMethod
            tFCI-Range
            explicit
        }
    },
    iE-Extensions      ProtocolExtensionContainer { { TFCS-ExtIEs } }      OPTIONAL,
    ...
}

TFCS-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCS)) OF
    SEQUENCE {
        cTFC                TFCS-CTFC,
        tFC-Beta            TransportFormatCombination-Beta      OPTIONAL,
        iE-Extensions      ProtocolExtensionContainer { { TFCS-TFCSList-ExtIEs } }      OPTIONAL,
        ...
    }

TFCS-TFCSList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-CTFC ::= INTEGER (1..maxCTFC-1)

TFCS-DCHList ::= SEQUENCE (SIZE (1..maxNrOfTFCi1Combs)) OF
    SEQUENCE {
        cTFC                TFCS-CTFC-DCH,
        iE-Extensions      ProtocolExtensionContainer { { TFCS-DCHList-ExtIEs } }      OPTIONAL,
        ...
    }

TFCS-DCHList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-CTFC-DCH ::= INTEGER (0..maxCTFC-DCH-1)

TFCS-TFC-MappingOnDSCHList ::= SEQUENCE (SIZE (1..maxNrOfTFCIGroups)) OF
    SEQUENCE {
        maxTFCI-field2-Value    TFCS-MaxTFCI-field2-Value,
        cTFC-DSCH              TFCS-CTFC-DSCH,
        iE-Extensions          ProtocolExtensionContainer { { TFCS-TFC-MappingOnDSCHList-
ExtIEs } }      OPTIONAL,
        ...
    }

TFCS-TFC-MappingOnDSCHList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-MaxTFCI-field2-Value ::= INTEGER (1..511)

TFCS-CTFC-DSCH ::= INTEGER (0..maxCTFC-DSCH-1)

TFCS-TFC-DSCHList ::= SEQUENCE (SIZE (1..maxNrOfTFCi2Combs)) OF
    SEQUENCE {
        cTFC-DSCH            TFCS-CTFC-DSCH,
        iE-Extensions        ProtocolExtensionContainer { { TFCS-TFC-DSCHList-ExtIEs } }
OPTIONAL,
        ...
    }

TFCS-TFC-DSCHList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet ::= SEQUENCE {
    dynamicParts              TransportFormatSet-DynamicPartList,
    semi-staticPart          TransportFormatSet-Semi-staticPart,
    iE-Extensions            ProtocolExtensionContainer { { TransportFormatSet-ExtIEs } }
OPTIONAL,
    ...
}

TransportFormatSet-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
    SEQUENCE {
        nrOfTransportBlocks    TransportFormatSet-NrOfTransportBlocks,
        transportBlockSize     TransportFormatSet-TransportBlockSize      OPTIONAL,
    }

```

```

        -- This IE is only present if "Number of Transport Blocks" is greater than 0
        mode                TransportFormatSet-ModeDP,
        iE-Extensions       ProtocolExtensionContainer { { TransportFormatSet-
DynamicPartList-ExtIEs} }   OPTIONAL,
        ...
    }

TransportFormatSet-DynamicPartList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransmissionTimeIntervalList ::= SEQUENCE (SIZE (1..maxTTI-count)) OF
    SEQUENCE {
        transmissionTimeInterval    TransportFormatSet-TransmissionTimeInterval,
        iE-Extensions               ProtocolExtensionContainer { {
TransmissionTimeInterval-ExtIEs} }   OPTIONAL,
        ...
    }

TransmissionTimeIntervalList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-Semi-staticPart ::= SEQUENCE {
    transmissionTimeInterval    TransportFormatSet-TransmissionTimeInterval    OPTIONAL,
    -- This IE is mandatory if not defined as dynamic parameter. Otherwise it is absent
    channelCoding               TransportFormatSet-ChannelCodingType,
    codingRate                   TransportFormatSet-CodingRate                    OPTIONAL,
    -- This IE is only present if channelCoding is 'convolutional' or 'turbo'
    rateMatchingAttribute       TransportFormatSet-RateMatchingAttribute,
    cRC-Size                     TransportFormatSet-CRC-Size,
    mode                          TransportFormatSet-ModeSSP,
    iE-Extensions               ProtocolExtensionContainer { { TransportFormatSet-Semi-
staticPart-ExtIEs} }   OPTIONAL,
    ...
}

TransportFormatSet-Semi-staticPart-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TransportFormatSet-ChannelCodingType ::= ENUMERATED {
    no-coding,
    convolutional-coding,
    turbo-coding,
    ...
}

TransportFormatSet-CodingRate ::= ENUMERATED {
    half,
    third,
    ...
}

TransportFormatSet-CRC-Size ::= ENUMERATED {
    v0,
    v8,
    v12,
    v16,
    v24,
    ...
}

TransportFormatSet-ModeDP ::= CHOICE {
    tdd                TransmissionTimeIntervalList,
    -- This IE is mandatory if not defined as semistatic parameter, otherwise it is absent
    ...
}

TransportFormatSet-ModeSSP ::= CHOICE {
    tdd                TransportFormatSet-SecondInterleavingMode,
    ...
}

TransportFormatSet-NrOfTransportBlocks ::= INTEGER (0..4095)

TransportFormatSet-RateMatchingAttribute ::= INTEGER (1..maxRateMatching)

TransportFormatSet-SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeSlot-related,
    ...
}

TransportFormatSet-TransmissionTimeInterval ::= ENUMERATED {
    msec-10,

```

```
    msec-20,  
    msec-40,  
    msec-80,  
    ...  
}  
| TransportFormatSet-TransportBlockSize ::= INTEGER (±0..5000)  
TransportLayerAddress ::= BIT STRING (SIZE (1..160, ...))  
TSTD-Indicator ::= ENUMERATED {  
    active,  
    inactive,  
    ...  
}  
  
-- =====  
-- U  
-- =====  
  
UARFCN ::= INTEGER (0..16383, ...)  
-- corresponds to 1885.2MHz .. 2024.8MHz
```

--- partly omitted ---

**CHANGE REQUEST**

*Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.*

**25.433 CR 102r1**

Current Version: **3.1.0**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **TSG RAN #8**

list expected approval meeting # here  
↑

for approval   
for information

Strategic   
non-strategic  (for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: ftp://ftp.3gpp.org/Information/CR-Form-v2.doc

**Proposed change affects:** (U)SIM  ME  UTRAN / Radio  Core Network   
(at least one should be marked with an X)

**Source:** **R-WG3** **Date:** **April 2000**

**Subject:** **Removal of the Definition of Radio Link Set**

**Work item:**

<b>Category:</b>	F Correction	<input type="checkbox"/>	<b>Release:</b>	Phase 2	<input type="checkbox"/>
<small>(only one category shall be marked with an X)</small>	A Corresponds to a correction in an earlier release	<input type="checkbox"/>		Release 96	<input type="checkbox"/>
	B Addition of feature	<input type="checkbox"/>		Release 97	<input type="checkbox"/>
	C Functional modification of feature	<input checked="" type="checkbox"/>		Release 98	<input type="checkbox"/>
	D Editorial modification	<input type="checkbox"/>		Release 99	<input checked="" type="checkbox"/>
				Release 00	<input type="checkbox"/>

**Reason for change:** **Previously the concept Radio Link Set has been introduced in NBAP and RNSAP. However, since this is a concept existing in several specifications (R3 and R1) it is proposed to remove it from NBAP and RNSAP and instead move it to the TS 25.401.**

**Clauses affected:** **3.1**

<b>Other specs affected:</b>	Other 3G core specifications	<input checked="" type="checkbox"/>	→ List of CRs:	<b>25.401 v3.2.0 CR008, 25.423 v3.1.0 CR86</b>
	Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:	
	MS test specifications	<input type="checkbox"/>	→ List of CRs:	
	BSS test specifications	<input type="checkbox"/>	→ List of CRs:	
	O&M specifications	<input type="checkbox"/>	→ List of CRs:	

**Other comments:**

## 3.1 Definitions

For the purposes of the present document, the following terms and definitions apply.

**Elementary Procedure:** The NBAP protocol consists of Elementary Procedures (EPs). An Elementary Procedure is a unit of interaction between the CRNC and the Node B.

An EP consists of an initiating message and possibly a response message.

Two kinds of EPs are used:

- **Class 1:** Elementary Procedures with response (success or failure).
- **Class 2:** Elementary Procedures without response.

For **Class 1** EPs, the types of responses can be as follows:

Successful

- A signalling message explicitly indicates that the elementary procedure successfully completed with the receipt of the response.

Unsuccessful

- A signalling message explicitly indicates that the EP failed.
- On time supervision expiry (i.e. absence of expected response). Whether or not any Class 1 procedure will have a timer on NBAP is FFS. To be sorted out when discussing the details of the error cases.

**Class 2** EPs are considered always successful.

~~**Radio Link Set:** A set of one or more Radio Links that has a common generation of Transmit Power Control (TPC) commands in the DL.~~

**Prepared Reconfiguration:** A Prepared Reconfiguration exists when the Synchronised Radio Link Reconfiguration Preparation procedure has been completed successfully. The Prepared Reconfiguration does not exist any more after either of the procedures Synchronised Radio Link Reconfiguration Commit or Synchronised Radio Link Reconfiguration Cancellation has been completed.







## 9.1.2 COMMON TRANSPORT CHANNEL SETUP REQUEST

## 9.1.2.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Transaction ID	M				–	
C-ID	M				YES	reject
Configuration Generation ID	M				YES	reject
<b>CHOICE common physical channel to be configured</b>					YES	ignore
>Secondary CCPCH					YES	reject
<b>&gt;Secondary CCPCH</b>		1				
>>Common Physical Channel ID	M				–	
>>FDD S-CCPCH Offset	M			Corresponds to 25.211: s-CCPCH,k	–	
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	
>>TFCS	M			For the DL.	–	
>>Secondary CCPCH Slot Format	M				–	
>>>TFCI Presence	C - SlotFormat				–	
>>Multiplexing Position	M				–	
>>STTD Indicator	M				–	
<b>&gt;&gt;FACH Parameters</b>	C-choiceCh	0..<maximum of FACHs>			GLOBAL	reject
>>>Common transport channel ID	M				–	
>>>Transport Format Set	M			For the DL.	–	
>>>ToAWS	M				–	
>>>ToAWE	M				–	
>>>Max FACH Power	M		DL Power	Maximum allowed power on the FACH.	–	
<b>&gt;&gt;PCH Parameters</b>	C-choiceCh	0..1			YES	reject
>>>Common Transport Channel ID	M				–	
>>>Transport Format Set	M			For the DL.	–	
>>>ToAWS	M				–	
>>>ToAWE	M				–	
>>>PCH Power	M		DL Power		–	
<b>&gt;&gt;&gt;PICH Parameters</b>		1			–	
>>>>Common Physical Channel ID	M				–	
>>>>DL Scrambling Code	M				–	

>>>>FDD DL Channelisation Code Number	M				-	
>>>>PICH Power	M		DL Power	Power to be used on the PICH.	-	
>>>>PICH Mode	M			Number of PI per frame	-	
>>>>STTD Indicator	M				-	
>PRACH					YES	reject
>PRACH		1				
>>Common Physical Channel ID	M				-	
>>Scrambling Code Word Number	M				-	
>>TFCS	M			For the UL.	-	
>>Preamble Signatures	M				-	
>>Allowed Slot Format Information		1..<MaxnoofSlotFormatsPRACHmaxSF>			-	
>>>RACH Slot Format	M				-	
>RACH Sub Channel Numbers	M				-	
>Puncture Limit	M			For the UL	-	
>Preamble threshold	M				-	
>>RACH Parameters		1			YES	reject
>>>Common Transport Channel ID	M				-	
>>>Transport Format Set	M			For the UL.	-	
>>>AICH Parameters		1			-	
>>>>Common Physical Channel ID	M				-	
>>>>DL Scrambling Code	M				-	
>>>>AICH Transmission Timing	M				-	
>>>>FDD DL Channelisation Code Number	M				-	
>>>>AICH Power	M		DL Power		-	
>>>>STTD Indicator	M				-	

Condition	Explanation
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17
ChoiceCh	One of the channels FACH or PCH or both must be present.

Range bound	Explanation
MaxnoofFACHs	Maximum number of FACHs that can be defined on a Secondary CCPCH.
MaxnoofSlotFormatsPRACHmaxSF	Maximum number of SF for a PRACH



## 9.1.5 COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST

### 9.1.5.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Transaction ID	M				–	
C-ID	M				YES	reject
Configuration Generation ID	M				YES	reject
<b>FACH parameters</b>		<i>0..&lt;maxFA CHCell&gt;</i>			GLOBAL	reject
>Common Transport Channel ID	M				–	
>Max FACH Power	O		DL Power	Maximum allowed power on the FACH.	–	
>ToAWS	O				–	
>ToAWE	O				–	
<b>PCH Parameters</b>		<i>0..1</i>			YES	reject
>Common Transport Channel ID	M				–	
>PCH Power	O		DL Power	Power to be used on the PCH.	–	
>ToAWS	O				–	
>ToAWE	O				–	
<b>PICH Parameters</b>		<i>0..1</i>			YES	reject
>Common Physical Channel ID	M				–	
>PICH Power	M		DL Power	Power to be used on the PICH.	–	
<b>PRACH Parameters</b>		<i>0..&lt;MaxPR ACHCellm axnoofPRA CHs&gt;</i>			GLOBAL	reject
>Common Physical Channel ID	M				–	
>Preamble Signatures	M				–	
<b>&gt;Allowed Slot Format Information</b>		<i>0..&lt;Maxno ofSlotForm atsPRACH maxSF&gt;</i>			–	
>>RACH Slot Format	M				–	
>RACH Sub Channel Numbers	O				–	
<b>AICH Parameters</b>		<i>0..&lt;MaxPR ACHCellm axnoofPRA CHs&gt;</i>			GLOBAL	reject
>Common Physical Channel ID	M				–	
>AICH Power	M		DL Power	Power to be	–	

				used on the AICH.		
--	--	--	--	-------------------	--	--

Range bound	Explanation
<i>MaxFACHCell</i>	Maximum number of FACHs that can be defined in a Cell
<i>MaxPRACHCell</i> <del><i>maxnoofPRACHs</i></del>	Maximum number of PRACHs and AICHs that can be defined in a Cell
<i>MaxnoofSlotFormatsPRACH</i> <del><i>maxSF</i></del>	Maximum number of SF for a PRACH

## 9.1.32 SYSTEM INFORMATION UPDATE REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Transaction ID	M				–	
C-ID	M				YES	reject
BCCH Modification Time	O				YES	reject
<b>MIB/SIB Information</b>		1.. <i>maxIB</i>			GLOBAL	reject
>IB Type	M			In one message, every IB Type can only be indicated once.	–	
>SIB Deletion Indicator	C-NotMIB				–	
>CHOICE <i>DeletionIndicator</i>						
> <i>NoDeletion</i>					YES	reject
>>SIB Originator	C-NotMIB				–	
>>IB SG REP	M				–	
<b>&gt;&gt;Segment Information</b>		1.. <i>maxIBSEG</i>			GLOBAL	reject
>>>IB SG POS	M				–	
>>>IB SG DATA	C – CRNCOri gination				–	

Range bound	Explanation
1.. <i>maxIB</i>	Maximum number of information Blocks supported in <i>one message, a physical channel scheduling cycle</i>
1.. <i>maxIBSEG</i>	Maximum number of segments for one Information Block

Condition	Explanation
CRNCOri gination	The IE shall be present if <i>the SIB Originator</i> IE is set to 'CRNC'
NotMIB	This IE shall be present if the IB Type is not equal to "MIB"



## 9.2.1.16 Criticality diagnostics

IE/Group Name	Presence	Range	IE type and reference	Semantics description
<b>Criticality Diagnostics</b>				
Procedure Code	O		INTEGER (0..255)	Procedure code is to be used if Criticality diagnostics is part of Error Indication procedure, and not within the response message of the same operation that caused the error
Triggering Message	O		ENUMERATED (initiating message, successful outcome, unsuccessful outcome, outcome)	The Triggering Message is used only if the Criticality diagnostics is part of Error Indication except when the procedure code is not understood.
Criticality Response	O		ENUMERATED (reject, ignore, notify)	This Criticality response IE is used for reporting the Criticality of the Triggering message
Transaction Id	O		Transaction ID	
<b>Information Element Criticality Diagnostics</b>		1 to <maxnoof errors>		
>Criticality Response	M		ENUMERATED (reject, ignore, notify)	The Criticality response IE is used for reporting the criticality of the triggering IE. The value 'ignore' shall never be used.
>IE Id	M		INTEGER (0..65535)	The IE Id of the not understood IE
>Repetition Number	O		INTEGER (0..255)	The repetition number of the not understood IE if applicable

Range bound	Explanation
<i>maxnooferrors</i>	Maximum no. of IE errors allowed to be reported with a single message. <del>The value for maxnooferrors is 256.</del>

### 9.3.3 NBAP PDU Content Definitions

```
-- *****
--
-- PDU definitions for NBAP.
--
-- *****

NBAP-PDU-Contents -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- *****
--
-- IE parameter types from other modules.
--
-- *****

IMPORTS
    AddorDeleteIndicator,
    AICH-TransmissionTiming,
    AvailabilityStatus,
    BCCH-ModificationTime,
    BindingID,
    BlockingPriorityIndicator,
    BlockSTTD-Indicator,
    BurstType,
    Cause,
    CCTrCH-ID,
    CellParameterID,
    CFN,
    CFNOffset,
    ChipOffset,
    C-ID,
    CommonChannelsCapacityConsumptionLaw,
    CommonMeasurementType,
    CommonMeasurementValue,
    CommonPhysicalChannelID,
    CommonTransportChannelID,
    CommunicationControlPortID,
    CompressedModeMethod,
    ConfigurationGenerationID,
    CriticalityDiagnostics,
    CRNC-CommunicationContextID,
    DCH-CombinationInd,
    DCH-ID,
    DedicatedMeasurementObjectType,
    DedicatedChannelsCapacityConsumptionLaw,
    DedicatedMeasurementType,
```

```
DedicatedMeasurementValue,  
D-FieldLength,  
DiversityControlField,  
DiversityMode,  
DL-DPCH-SlotFormat,  
DL-FrameType,  
DL-or-Global-CapacityCredit,  
DL-Power,  
DL-ScramblingCode,  
DPCH-ID,  
DSCH-ID,  
-- to do  
DSCH-TFS,  
FDD-DL-ChannelisationCodeNumber,  
FDD-S-CCPCH-Offset,  
FDD-TPC-DownlinkStepSize,  
FrameHandlingPriority,  
FrameOffset,  
GapPeriod,  
GapPositionMode,  
IB-SG-DATA,  
IB-SG-POS,  
IB-SG-REP,  
IB-Type,  
IndicationType,  
LimitedPowerIncrease,  
Local-Cell-ID,  
MaximumDL-PowerCapability,  
MaximumTransmissionPower,  
MaxNrOfUL-DPDCHs,  
MaxPRACH-MidambleShifts,  
MeasurementFilterCoefficient,  
MeasurementID,  
MidambleShift,  
MinSpreadingFactor,  
MinUL-ChannelisationCodeLength,  
MultiplexingPosition,  
NodeB-CommunicationContextID,  
PagingIndicatorLength,  
PayloadCRC-PresenceIndicator,  
PCCPCH-Power,  
PD,  
PDSCH-CodeMapping,  
PDSCHSet-ID,  
PDSCH-ID,  
PICH-Mode,  
PowerAdjustmentType,  
PowerControlMode,  
PowerOffset,  
PowerResumeMode,  
PRACH-Midamble,
```

PreambleSignatures,  
PreambleThreshold,  
PrimaryCPICH-Power,  
PrimaryScramblingCode,  
PropagationDelay,  
SCH-TimeSlot,  
PunctureLimit,  
PUSCHSet-ID,  
PUSCH-ID,  
QE-Selector,  
RACH-SlotFormat,  
RACH-SubChannelNumbers,  
RepetitionLength,  
RepetitionPeriod,  
ReportCharacteristics,  
ResourceOperationalState,  
RL-Set-ID,  
RL-ID,  
ScaledMaxAdjustmentPeriod,  
ScaledMaxAdjustmentStep,  
ScramblingCodeChange,  
ScramblingCodeWordNumber,  
SecondaryCCPCH-SlotFormat,  
S-FieldLength,  
SFN,  
ShutdownTimer,  
SIB-DeletionIndicator,  
SIB-Originator,  
SSDT-Cell-Identity,  
SSDT-CellID-Length,  
SSDT-Indication,  
STTD-Indicator,  
SSDT-SupportIndicator,  
SyncCase,  
T-Cell,  
TDD-ChannelisationCode,  
TDD-TPC-DownlinkStepSize,  
TDD-PhysicalChannelOffset,  
TFCI-Coding,  
TFCI-Presence,  
TFCI-SignallingMode,  
TFCS,  
TGD,  
TGL,  
TimeSlot,  
TimeSlotDirection,  
TimeSlotStatus,  
ToAWE,  
ToAWS,  
TransmissionDiversityApplied,  
TransmitDiversityIndicator,

```
TransportFormatSet,  
TransportLayerAddress,  
TSTD-Indicator,  
UARFCN,  
UL-CapacityCredit,  
UL-DL-CompressedModeSelection,  
UL-DeltaSIR,  
UL-DeltaSIR-after,  
UL-DPCCCH-SlotFormat,  
UL-SIR,  
UL-FP-Mode,  
UL-InterferenceLevel,  
UL-ScramblingCode,  
USCH-ID  
FROM NBAP-IEs  
  
PrivateIE-Container{ },  
ProtocolExtensionContainer{ },  
ProtocolIE-Container{ },  
ProtocolIE-ContainerList{ },  
NBAP-PRIVATE-IES,  
NBAP-PROTOCOL-IES,  
NBAP-PROTOCOL-EXTENSION  
FROM NBAP-Containers  
  
id-AICH-InformationItem-AuditRsp,  
id-AICH-InformationItem-ResourceStatusInd,  
id-AICH-ParametersList-CTCH-ReconfRqstFDD,  
id-AllRLItem-DM-Rprt,  
id-AllRLItem-DM-Rsp,  
id-AllRLItem-Set-DM-Rprt,  
id-AllRLItem-Set-DM-Rsp,  
id-BCH-InformationItem-AuditRsp,  
id-BCH-InformationItem-ResourceStatusInd,  
id-BCCH-ModificationTime,  
id-BlockingPriorityIndicator,  
id-Case1Item-Cell-SetupRqstTDD,  
id-Case2Item-Cell-SetupRqstTDD,  
id-Cause,  
id-CCP-InformationItem-AuditRsp,  
id-CCP-InformationList-AuditRsp,  
id-CCP-InformationItem-ResourceStatusInd,  
id-Cell-InformationItem-AuditRsp,  
id-Cell-InformationItem-ResourceStatusInd,  
id-Cell-InformationList-AuditRsp,  
id-CellItem-CM-Rprt,  
id-CellItem-CM-Rqst,  
id-CellItem-CM-Rsp,  
id-CellParameterID,  
id-CFN,  
id-C-ID,
```

id-CombiningItem-RL-AdditionFailureFDD,  
id-CombiningItem-RL-AdditionRspFDD,  
id-CombiningItem-RL-AdditionRspTDD,  
id-CombiningItem-RL-SetupFailureFDD,  
id-CombiningItem-RL-SetupRspFDD,  
id-CommonMeasurementObjectType-CM-Rprt,  
id-CommonMeasurementObjectType-CM-Rqst,  
id-CommonMeasurementObjectType-CM-Rsp,  
id-CommonMeasurementType,  
id-CommonPhysicalChannelID,  
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD,  
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD,  
id-CommonTransportChannelType-CTCH-ReconfRqstTDD,  
id-CommonTransportChannelType-CTCH-SetupRsp,  
id-CommunicationControlPortID,  
id-CM-PatternInformationItem-CompressedModePrep,  
id-CM-PatternInformationList-CompressedModePrep,  
id-ConfigurationGenerationID,  
id-CRNC-CommunicationContextID,  
id-CriticalityDiagnostics,  
id-DCH-AddListIE-RL-ReconfReady,  
id-DCH-AddListIE-RL-ReconfRsp,  
id-DCH-AddList-RL-ReconfPrepFDD,  
id-DCH-AddList-RL-ReconfPrepTDD,  
id-DCH-AddList-RL-ReconfRqstFDD,  
id-DCH-AddList-RL-ReconfRqstTDD,  
id-DCH-DeleteList-RL-ReconfPrepFDD,  
id-DCH-DeleteList-RL-ReconfPrepTDD,  
id-DCH-DeleteList-RL-ReconfRqstFDD,  
id-DCH-DeleteList-RL-ReconfRqstTDD,  
id-DCH-InformationList-RL-SetupRqstFDD,  
id-DCH-InformationList-RL-SetupRqstTDD,  
id-DCH-InformationResponseItem-RL-SetupRspTDD,  
id-DCH-InformationResponseListIE-RL-SetupRspTDD,  
id-DCH-ModifyListIE-RL-ReconfReady,  
id-DCH-ModifyListIE-RL-ReconfRsp,  
id-DCH-ModifyList-RL-ReconfPrepFDD,  
id-DCH-ModifyList-RL-ReconfPrepTDD,  
id-DCH-ModifyList-RL-ReconfRqstFDD,  
id-DCH-ModifyList-RL-ReconfRqstTDD,  
id-DedicatedMeasurementObjectType,  
id-DedicatedMeasurementObjectType-DM-Rprt,  
id-DedicatedMeasurementObjectType-DM-Rqst,  
id-DedicatedMeasurementObjectType-DM-Rsp,  
id-DedicatedMeasurementType,  
id-DL-CCTrCH-InformationItem-RL-ReconfRqstTDD,  
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,  
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,  
id-DL-CCTrCH-InformationList-RL-ReconfPrepTDD,  
id-DL-CCTrCH-InformationList-RL-ReconfRqstTDD,  
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,

id-DL-DPCH-InformationItem-RL-AdditionRqstTDD,  
id-DL-DPCH-InformationList-RL-AdditionRqstTDD,  
id-DL-DPCH-InformationList-RL-SetupRqstTDD,  
id-DL-DPCH-InformationListIE-RL-ReconfPrepTDD,  
id-DL-DPCH-Information-RL-ReconfPrepFDD,  
id-DL-DPCH-Information-RL-ReconfRqstFDD,  
id-DL-DPCH-Information-RL-SetupRqstFDD,  
id-DL-ReferencePowerInformationItem-DL-PC-Rqst,  
id-DLReferencePower,  
id-DLReferencePowerList-DL-PC-Rqst,  
id-DSCH-AddItem-RL-ReconfPrepFDD,  
id-DSCH-AddItem-RL-ReconfRqstFDD,  
id-DSCH-AddList-RL-ReconfPrepFDD,  
id-DSCH-AddList-RL-ReconfRqstFDD,  
id-DSCH-DeleteItem-RL-ReconfPrepFDD,  
id-DSCH-DeleteItem-RL-ReconfRqstFDD,  
id-DSCH-DeleteList-RL-ReconfPrepFDD,  
id-DSCH-DeleteList-RL-ReconfRqstFDD,  
id-DSCH-ID,  
id-DSCH-information-AddList-RL-ReconfPrepTDD,  
id-DSCH-Information-AddList-RL-ReconfRqstTDD,  
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD,  
id-DSCH-Information-DeleteList-RL-ReconfRqstTDD,  
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD,  
id-DSCH-Information-ModifyList-RL-ReconfRqstTDD,  
id-DSCH-InformationResponseListIE-RL-AdditionRspTDD,  
id-DSCH-InformationRespListIE-RL-SetupFailureFDD,  
id-DSCH-InformationResponseListIE-RL-SetupRspFDD,  
id-DSCH-InformationResponseListIE-RL-SetupRspTDD,  
id-DSCH-InformationList-RL-SetupRqstFDD,  
id-DSCH-InformationList-RL-SetupRqstTDD,  
id-DSCH-ModifyItem-RL-ReconfPrepFDD,  
id-DSCH-ModifyItem-RL-ReconfRqstFDD,  
id-DSCH-ModifyListIE-RL-ReconfReady,  
id-DSCH-ModifyListIE-RL-ReconfRsp,  
id-DSCH-ModifyList-RL-ReconfPrepFDD,  
id-DSCH-ModifyList-RL-ReconfRqstFDD,  
id-DSCH-SetupListIE-RL-ReconfReady,  
id-DSCH-SetupListIE-RL-ReconfRsp,  
id-FACH-InformationItem-AuditRsp,  
id-FACH-InformationItem-ResourceStatusInd,  
id-FACHItem-CTCH-SetupRsp,  
id-FACH-ParametersList-CTCH-ReconfRqstFDD,  
id-FACH-ParametersList-CTCH-ReconfRqstTDD,  
id-FACH-ParametersListIE-CTCH-SetupRqstFDD,  
id-FACH-ParametersListIE-CTCH-SetupRqstTDD,  
id-IndicationType-ResourceStatusInd,  
id-Local-Cell-ID,  
id-Local-Cell-InformationItem-AuditRsp,  
id-Local-Cell-InformationItem-ResourceStatusInd,  
id-Local-Cell-InformationItem2-ResourceStatusInd,

id-Local-Cell-InformationList-AuditRsp,  
id-MaxAdjustmentPeriod,  
id-MaxAdjustmentStep,  
id-MaximumTransmissionPower,  
id-MeasurementFilterCoefficient,  
id-MeasurementID,  
id-MIB-SIB-InformationList-SystemInfoUpdateRqst,  
id-NodeBInformation-AuditRep,  
id-No-DeletionItem-SystemInfoUpdate,  
id-No-FailureItem-ResourceStatusInd,  
id-Non-CombiningItem-RL-AdditionFailureFDD,  
id-Non-CombiningItem-RL-AdditionRspFDD,  
id-Non-CombiningItem-RL-AdditionRspTDD,  
id-NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD,  
id-NonCombiningOrIENotPrsentItem-RL-SetupRspFDD,  
id-NodeB-CommunicationContextID,  
id-P-CCPCH-InformationItem-AuditRsp,  
id-P-CCPCH-InformationItem-ResourceStatusInd,  
id-P-CPICH-InformationItem-AuditRsp,  
id-P-CPICH-InformationItem-ResourceStatusInd,  
id-P-SCH-InformationItem-AuditRsp,  
id-P-SCH-InformationItem-ResourceStatusInd,  
id-PCCPCH-Information-Cell-ReconfRqstTDD,  
id-PCCPCH-Information-Cell-SetupRqstTDD,  
id-PCH-InformationItem-ResourceStatusInd,  
id-PCHItem-CTCH-SetupRsp,  
id-PCH-Parameters-CTCH-ReconfRqstFDD,  
id-PCH-Parameters-CTCH-ReconfRqstTDD,  
id-PCH-ParametersItem-CTCH-SetupRqstFDD,  
id-PCH-ParametersItem-CTCH-SetupRqstTDD,  
id-PCH-InformationItem-AuditRsp,  
id-PICH-InformationItem-ResourceStatusInd,  
id-PD,  
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst,  
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst,  
id-PDSCHSets-AddList-PSCH-ReconfRqst,  
id-PDSCHSets-DeleteList-PSCH-ReconfRqst,  
id-PDSCHSets-ModifyList-PSCH-ReconfRqst,  
id-PICH-InformationItem-AuditRsp,  
id-PICH-Parameters-CTCH-ReconfRqstFDD,  
id-PICH-Parameters-CTCH-ReconfRqstTDD,  
id-PowerAdjustmentType,  
id-PRACH-InformationItem-AuditRsp,  
id-PRACH-InformationItem-ResourceStatusInd,  
id-PRACHItem-CTCH-SetupRqstFDD,  
id-PRACHItem-CTCH-SetupRqstTDD,  
id-PRACH-ParametersList-CTCH-ReconfRqstFDD,  
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD,  
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD,  
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD,  
id-PrimaryCPICH-Information-Cell-SetupRqstFDD,



id-PrimarySCH-Information-Cell-ReconfRqstFDD,  
id-PrimarySCH-Information-Cell-SetupRqstFDD,  
id-PrimaryScramblingCode,  
id-ProcedureScopeType-DL-PC-Rqst,  
id-SCH-Information-Cell-ReconfRqstTDD,  
id-SCH-Information-Cell-SetupRqstTDD,  
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst,  
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst,  
id-PUSCHSets-AddList-PSCH-ReconfRqst,  
id-PUSCHSets-DeleteList-PSCH-ReconfRqst,  
id-PUSCHSets-ModifyList-PSCH-ReconfRqst,  
id-RACH-InformationItem-AuditRsp,  
id-RACH-InformationItem-ResourceStatusInd,  
id-RACHItem-CTCH-SetupRsp,  
id-RACHItem-CM-Rprt,  
id-RACHItem-CM-Rqst,  
id-RACHItem-CM-Rsp,  
id-RACH-ParametersItem-CTCH-SetupRqstFDD,  
id-RACH-ParameterItem-CTCH-SetupRqstTDD,  
id-ReportCharacteristics,  
id-Reporting-Object-RL-FailureInd,  
id-Reporting-Object-RL-RestoreInd,  
id-RL-ID,  
id-RL-InformationItem-DM-Rprt,  
id-RL-InformationItem-DM-Rqst,  
id-RL-InformationItem-DM-Rsp,  
id-RL-InformationItem-RL-AdditionRqstFDD,  
id-RL-informationItem-RL-DeletionRqst,  
id-RL-InformationItem-RL-FailureInd,  
id-RL-InformationItem-RL-ReconfPrepFDD,  
id-RL-InformationItem-RL-ReconfRqstFDD,  
id-RL-InformationItem-RL-RestoreInd,  
id-RL-InformationItem-RL-SetupRqstFDD,  
id-RL-InformationList-RL-AdditionRqstFDD,  
id-RL-informationList-RL-DeletionRqst,  
id-RL-InformationList-RL-ReconfPrepFDD,  
id-RL-InformationList-RL-ReconfRqstFDD,  
id-RL-InformationList-RL-SetupRqstFDD,  
id-RL-InformationResponseItem-RL-AdditionRspFDD,  
id-RL-InformationResponseItem-RL-ReconfReady,  
id-RL-InformationResponseItem-RL-ReconfRsp,  
id-RL-InformationResponseItem-RL-SetupRspFDD,  
id-RL-InformationResponseList-RL-AdditionRspFDD,  
id-RL-InformationResponseList-RL-ReconfReady,  
id-RL-InformationResponseList-RL-ReconfRsp,  
id-RL-InformationResponseList-RL-SetupRspFDD,  
id-RL-InformationResponse-RL-AdditionRspTDD,  
id-RL-InformationResponse-RL-SetupRspTDD,  
id-RL-Information-RL-AdditionRqstTDD,  
id-RL-Information-RL-ReconfRqstTDD,  
id-RL-Information-RL-ReconfPrepTDD,

id-RL-Information-RL-SetupRqstTDD,  
id-RLItem-DM-Rprt,  
id-RLItem-DM-Rqst,  
id-RLItem-DM-Rsp,  
id-RLItem-RL-FailureInd,  
id-RLItem-RL-RestoreInd,  
id-RL-ReconfigurationFailureItem-RL-ReconfFailure,  
id-RL-ReconfigurationFailureList-RL-ReconfFailure,  
id-RL-Set-InformationItem-DM-Rprt,  
id-RL-SetItem-DM-Rqst,  
id-RL-Set-InformationItem-DM-Rsp,  
id-RL-Set-InformationItem-RL-FailureInd,  
id-RL-Set-InformationItem-RL-RestoreInd,  
id-RL-SetItem-DM-Rprt,  
id-RL-SetItem-DM-Rsp,  
id-RL-SetItem-RL-FailureInd,  
id-RL-SetItem-RL-RestoreInd,  
id-S-CCPCH-InformationItem-AuditRsp,  
id-S-CCPCH-InformationItem-ResourceStatusInd,  
id-S-CPICH-InformationItem-AuditRsp,  
id-S-CPICH-InformationItem-ResourceStatusInd,  
id-SCH-InformationItem-AuditRsp,  
id-SCH-InformationItem-ResourceStatusInd,  
id-S-SCH-InformationItem-AuditRsp,  
id-S-SCH-InformationItem-ResourceStatusInd,  
id-Secondary-CCPCHItem-CTCH-SetupRqstFDD,  
id-Secondary-CCPCHItem-CTCH-SetupRqstTDD,  
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD,  
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD,  
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD,  
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD,  
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD,  
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD,  
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD,  
id-SecondarySCH-Information-Cell-ReconfRqstFDD,  
id-SecondarySCH-Information-Cell-SetupRqstFDD,  
id-SegmentInformationListIE-SystemInfoUpdate,  
id-ServiceImpactingItem-ResourceStatusInd,  
id-SFN,  
id-ShutdownTimer,  
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD,  
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD,  
id-Successful-RL-InformationRespList-RL-AdditionFailureFDD,  
id-Successful-RL-InformationRespList-RL-SetupFailureFDD,  
id-SyncCase,  
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH,  
id-T-Cell,  
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD,  
id-TimeSlotConfigurationList-Cell-SetupRqstTDD,  
id-TransmissionDiversityApplied,  
id-UARFCNforNt,

id-UARFCNforNd,  
 id-UARFCNforNu,  
 id-UL-CCTrCH-InformationItem-RL-ReconfRqstTDD,  
 id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,  
 id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD,  
 id-UL-CCTrCH-InformationList-RL-ReconfPrepTDD,  
 id-UL-CCTrCH-InformationList-RL-ReconfRqstTDD,  
 id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,  
 id-UL-DPCH-InformationItem-RL-AdditionRqstTDD,  
 id-UL-DPCH-InformationList-RL-AdditionRqstTDD,  
 id-UL-DPCH-InformationList-RL-SetupRqstTDD,  
 id-UL-DPCH-InformationListIE-RL-ReconfPrepTDD,  
 id-UL-DPCH-Information-RL-ReconfPrepFDD,  
 id-UL-DPCH-Information-RL-ReconfRqstFDD,  
 id-UL-DPCH-Information-RL-SetupRqstFDD,  
 id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD,  
 id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD,  
 id-Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD,  
 id-Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD,  
 id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD,  
 id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD,  
 id-USCH-information-AddList-RL-ReconfPrepTDD,  
 id-USCH-Information-AddList-RL-ReconfRqstTDD,  
 id-USCH-Information-DeleteList-RL-ReconfPrepTDD,  
 id-USCH-Information-DeleteList-RL-ReconfRqstTDD,  
 id-USCH-Information-ModifyList-RL-ReconfPrepTDD,  
 id-USCH-Information-ModifyList-RL-ReconfRqstTDD,  
 id-USCH-InformationResponseListIE-RL-AdditionRspTDD,  
 id-USCH-InformationResponseListIE-RL-SetupRspTDD,  
 id-USCH-InformationList-RL-SetupRqstTDD,  
 id-USCH-ModifyListIE-RL-ReconfReady,  
 id-USCH-ModifyListIE-RL-ReconfRsp,  
 id-USCH-SetupListIE-RL-ReconfReady,  
 id-USCH-SetupListIE-RL-ReconfRsp,

maxNrOfCCTrCHs,  
 maxNrOfCodes,  
 maxNrOfCMPatterns,  
 maxNrOfDCHs,  
 maxNrOfDLCodes,  
 maxNrOfDPCHs,  
 maxNrOfDSCHs,  
 maxNrOfFACHs,  
 maxNrOfRLs,  
 maxNrOfRLSets,  
~~maxNrOfPRACHs,~~  
 maxNrOfPDSCHs,  
 maxNrOfPUSCHs,  
 maxNrOfPDSCHSets,  
 maxNrOfPUSCHSets,  
 maxNrOfSCCPCHs,

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maxNrOfULTSs,
maxNrOfUSCHs,
maxFACHCell,
maxRACHCell,
maxPRACHCell,
maxSCCPCHCell,
maxSCPICHCell,
maxCellinNodeB,
maxCCPinNodeB,
maxLocalCellinNodeB,
maxnoofSlotFormatsPRACHmaxSF,
maxIB,
maxIBSEG
FROM NBAP-Constants;

-- *****
--
-- COMMON TRANSPORT CHANNEL SETUP REQUEST FDD,
--
-- *****

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

CommonTransportChannelSetupRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonTransportChannelSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-C-ID                CRITICALITY   reject      TYPE C-ID                PRESENCE mandatory
    }|
    { ID      id-ConfigurationGenerationID  CRITICALITY   reject      TYPE ConfigurationGenerationID  PRESENCE
    mandatory }|
    { ID      id-CommonPhysicalChannelType-CTCH-SetupRqstFDD  CRITICALITY   ignore     TYPE CommonPhysicalChannelType-CTCH-SetupRqstFDD
    PRESENCE  mandatory },
    ...
}

CommonPhysicalChannelType-CTCH-SetupRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters      Secondary-CCPCH-CTCH-SetupRqstFDD,
    PRACH-parameters                PRACH-CTCH-SetupRqstFDD,
    ...
}

Secondary-CCPCH-CTCH-SetupRqstFDD ::= ProtocolIE-Container {{ Secondary-CCPCHIE-CTCH-SetupRqstFDD }}

Secondary-CCPCHIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-Secondary-CCPCHItem-CTCH-SetupRqstFDD  CRITICALITY reject  TYPE Secondary-CCPCHItem-CTCH-SetupRqstFDD  PRESENCE mandatory },

```

```

}
...
}
Secondary-CCPCHItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    fdd-S-CCPCH-Offset                FDD-S-CCPCH-Offset,
    dl-ScramblingCode                 DL-ScramblingCode,
    fdd-DL-ChannelisationCodeNumber   FDD-DL-ChannelisationCodeNumber,
    tFCS                               TFCS,
    secondary-CCPCH-SlotFormat        SecondaryCCPCH-SlotFormat,
    tFCI-Presence                      TFCI-Presence OPTIONAL,
    -- This IE is present only if the Secondary CCPCH Slot Format is equal to any value 8 to 17
    multiplexingPosition              MultiplexingPosition,
    sTTD-Indicator                    STTD-Indicator,
    fACH-Parameters                   FACH-ParametersList-CTCH-SetupRqstFDD OPTIONAL,
    -- One of the channels FACH or PCH or both must be present
    pCH-Parameters                    PCH-Parameters-CTCH-SetupRqstFDD OPTIONAL,
    -- One of the channels FACH or PCH or both must be present
    iE-Extensions                     ProtocolExtensionContainer { { Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-ParametersList-CTCH-SetupRqstFDD ::= ProtocolIE-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstFDD }}

FACH-ParametersListIEs-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersListIE-CTCH-SetupRqstFDD CRITICALITY reject TYPE FACH-ParametersListIE-CTCH-SetupRqstFDD PRESENCE mandatory },
    ...
}

FACH-ParametersListIE-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstFDD

FACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID          CommonTransportChannelID,
    transportFormatSet                TransportFormatSet,
    toAWS                              ToAWS,
    toAWE                              ToAWE,
    maxFACH-Power                     DL-Power,
    iE-Extensions                     ProtocolExtensionContainer { { FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Container {{ PCH-ParametersIE-CTCH-SetupRqstFDD }}

```

```

PCH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
  { ID id-PCH-ParametersItem-CTCH-SetupRqstFDD  CRITICALITY reject  TYPE PCH-ParametersItem-CTCH-SetupRqstFDD  PRESENCE mandatory },
  ...
}

PCH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
  commonTransportChannelID      CommonTransportChannelID,
  transportFormatSet            TransportFormatSet,
  toAWS                          ToAWS,
  toAWE                          ToAWE,
  pCH-Power                      DL-Power, -- R3-000655, CR24r1
  pICH-Parameters                PICH-Parameters-CTCH-SetupRqstFDD,

  iE-Extensions                 ProtocolExtensionContainer { { PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs } }  OPTIONAL,
  ...
}

PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  dl-ScramblingCode            DL-ScramblingCode,
  fdd-dl-ChannelisationCodeNumber  FDD-DL-ChannelisationCodeNumber,
  pICH-Power                    DL-Power,
  pICH-Mode                     PICH-Mode,
  sTTD-Indicator                STTD-Indicator,
  iE-Extensions                 ProtocolExtensionContainer { { PICH-Parameters-CTCH-SetupRqstFDD-ExtIEs } }  OPTIONAL,
  ...
}

PICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PRACH-CTCH-SetupRqstFDD ::= ProtocolIE-Container {{ PRACHIE-CTCH-SetupRqstFDD }}

PRACHIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
  { ID id-PRACHItem-CTCH-SetupRqstFDD  CRITICALITY reject  TYPE PRACHItem-CTCH-SetupRqstFDD  PRESENCE mandatory },
  ...
}

PRACHItem-CTCH-SetupRqstFDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  scramblingCodeWordNumber     ScramblingCodeWordNumber,
  tFCS                          TFCS,
  preambleSignatures           PreambleSignatures,
  allowedSlotFormatInformation  AllowedSlotFormatInformationList-CTCH-SetupRqstFDD,
  rACH-SubChannelNumbers       RACH-SubChannelNumbers,
  ul-punctureLimit             PunctureLimit,
}

```

```

    preambleThreshold      PreambleThreshold,
    rACH-Parameters        RACH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions          ProtocolExtensionContainer { { PRACHItem-CTCH-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

PRACHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllowedSlotFormatInformationList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxnoofSlotFormatsPRACHmaxSF)) OF AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD

AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    rACHSlotFormat          RACH-SlotFormat,
    iE-Extensions          ProtocolExtensionContainer { { AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RACH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Container {{ RACH-ParametersIE-CTCH-SetupRqstFDD }}

RACH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-ParametersItem-CTCH-SetupRqstFDD CRITICALITY reject TYPE RACH-ParametersItem-CTCH-SetupRqstFDD PRESENCE mandatory },
    ...
}

RACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID CommonTransportChannelID,
    transportFormatSet        TransportFormatSet,
    aICH-Parameters           AICH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions            ProtocolExtensionContainer { { RACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs } } OPTIONAL,
    ...
}

RACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID   CommonPhysicalChannelID,
    dl-ScramblingCode         DL-ScramblingCode,
    aICH-TransmissionTiming   AICH-TransmissionTiming,
    fdd-dl-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
    aICH-Power                DL-Power,
    sTTD-Indicator            STTD-Indicator,
    iE-Extensions            ProtocolExtensionContainer { { AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs } } OPTIONAL,
}

```

```

}
...
}
AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
-- *****
--
-- COMMON TRANSPORT CHANNEL SETUP REQUEST TDD
--
-- *****

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

CommonTransportChannelSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-C-ID                CRITICALITY reject      TYPE C-ID                PRESENCE mandatory }
    |
    { ID      id-ConfigurationGenerationID  CRITICALITY reject      TYPE ConfigurationGenerationID  PRESENCE mandatory }
    |
    { ID      id-CommonPhysicalChannelType-CTCH-SetupRqstTDD  CRITICALITY ignore      TYPE CommonPhysicalChannelType-CTCH-SetupRqstTDD  PRESENCE mandatory }
    ,
    ...
}

CommonTransportChannelSetupRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
...
}

CommonPhysicalChannelType-CTCH-SetupRqstTDD ::= CHOICE {
    secondary-CCPCH-parameters          Secondary-CCPCH-CTCH-SetupRqstTDD,
    pRACH-parameters                    PRACH-CTCH-SetupRqstTDD,
    ...
}

Secondary-CCPCH-CTCH-SetupRqstTDD ::= ProtocolIE-Container {{ Secondary-CCPCHIE-CTCH-SetupRqstTDD }}

Secondary-CCPCHIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Secondary-CCPCHItem-CTCH-SetupRqstTDD  CRITICALITY reject  TYPE Secondary-CCPCHItem-CTCH-SetupRqstTDD  PRESENCE mandatory },
    ...
}

Secondary-CCPCHItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    cTrCH-ID          CTrCH-ID,
    tFCS              TFCS,
    secondaryCCPCH-parameterList  Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD,
    iE-Extensions     ProtocolExtensionContainer  {{Secondary-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs}}  OPTIONAL,
}

```



```

}
...
}
Secondary-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD ::= ProtocolIE-Container {{ Secondary-CCPCH-parameterListIEs-CTCH-SetupRqstTDD }}
Secondary-CCPCH-parameterListIEs-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
{ ID id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD CRITICALITY reject TYPE Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD PRESENCE
mandatory },
...
}
Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD
Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
commonPhysicalChannelID CommonPhysicalChannelID,
tdd-ChannelisationCode TDD-ChannelisationCode,
timeslot TimeSlot,
burstType BurstType,
midambleShift MidambleShift,
tdd-PhysicalChannelOffset TDD-PhysicalChannelOffset,
repetitionPeriod RepetitionPeriod,
repetitionLength RepetitionLength,
s-CCPCH-Power DL-Power,
fACH-ParametersList FACH-ParametersList-CTCH-SetupRqstTDD OPTIONAL,
pCH-Parameters PCH-Parameters-CTCH-SetupRqstTDD OPTIONAL,
-- One of the channels FACH or PCH or both must be present
iE-Extensions ProtocolExtensionContainer { { Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD-ExtIEs } } OPTIONAL,
...
}
Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
FACH-ParametersList-CTCH-SetupRqstTDD ::= ProtocolIE-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstTDD }}
FACH-ParametersListIEs-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
{ ID id-FACH-ParametersListIE-CTCH-SetupRqstTDD CRITICALITY reject TYPE FACH-ParametersListIE-CTCH-SetupRqstTDD PRESENCE mandatory },
...
}
FACH-ParametersListIE-CTCH-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstTDD
FACH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
commonTransportChannelID CommonTransportChannelID,
dl-TransportFormatSet TransportFormatSet,
toAWS ToAWS,

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```

    toAWE                               ToAWE,
    iE-Extensions                         ProtocolExtensionContainer { { FACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCH-Parameters-CTCH-SetupRqstTDD ::= ProtocolIE-Container {{ PCH-ParametersIE-CTCH-SetupRqstTDD }}

PCH-ParametersIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-ParametersItem-CTCH-SetupRqstTDD    CRITICALITY reject    TYPE PCH-ParametersItem-CTCH-SetupRqstTDD    PRESENCE mandatory },
    ...
}

PCH-ParametersItem-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonTransportChannelID             CommonTransportChannelID,
    dl-TransportFormatSet                 TransportFormatSet,
    toAWS                                 ToAWS,
    toAWE                                 ToAWE,
    pICH-Parameters                       PICH-Parameters-CTCH-SetupRqstTDD,
    iE-Extensions                         ProtocolExtensionContainer { { PCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

PCH-ParametersItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PICH-Parameters-CTCH-SetupRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID              CommonPhysicalChannelID,
    tdd-ChannelisationCode                TDD-ChannelisationCode,
    timeSlot                              TimeSlot,
    burstType                             BurstType OPTIONAL,
    midambleShift                         MidambleShift,
    tdd-PhysicalChannelOffset             TDD-PhysicalChannelOffset,
    repetitionPeriod                      RepetitionPeriod,
    repetitionLength                      RepetitionLength,
    pagingIndicatorLength                 PagingIndicatorLength,
    pICH-Power                            DL-Power,
    iE-Extensions                         ProtocolExtensionContainer { { PICH-Parameters-CTCH-SetupRqstTDD-ExtIEs } } OPTIONAL,
    ...
}

PICH-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACH-CTCH-SetupRqstTDD ::= ProtocolIE-Container {{ PRACHIE-CTCH-SetupRqstTDD }}

```

```

PRACHIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-PRACHItem-CTCH-SetupRqstTDD  CRITICALITY reject  TYPE PRACHItem-CTCH-SetupRqstTDD  PRESENCE mandatory },
  ...
}

PRACHItem-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  timeslot                     TimeSlot,
  tdd-ChannelisationCode      TDD-ChannelisationCode,
  maxPRACH-MidambleShifts     MaxPRACH-MidambleShifts  OPTIONAL,
  pRACH-Midamble              PRACH-Midamble,
  rACH                        RACH-Parameter-CTCH-SetupRqstTDD,
  iE-Extensions               ProtocolExtensionContainer  { { PRACHItem-CTCH-SetupRqstTDD-ExtIEs } }  OPTIONAL,
  ...
}

PRACHItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RACH-Parameter-CTCH-SetupRqstTDD ::= ProtocolIE-Container {{ RACH-ParameterIE-CTCH-SetupRqstTDD }}

RACH-ParameterIE-CTCH-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-RACH-ParameterItem-CTCH-SetupRqstTDD  CRITICALITY reject  TYPE RACH-ParameterItem-CTCH-SetupRqstTDD  PRESENCE mandatory },
  ...
}

RACH-ParameterItem-CTCH-SetupRqstTDD ::= SEQUENCE {
  commonTransportChannelID      CommonTransportChannelID,
  iE-Extensions                 ProtocolExtensionContainer  { { RACH-ParameterItem-CTCH-SetupRqstTDD-ExtIEs } }  OPTIONAL,
  ...
}

RACH-ParameterItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- COMMON TRANSPORT CHANNEL SETUP RESPONSE
--
-- *****

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

CommonTransportChannelSetupResponse-IEs NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-CommonTransportChannelType-CTCH-SetupRsp      CRITICALITY ignore TYPE CommonTransportChannelType-CTCH-SetupRsp PRESENCE
      mandatory }|
    { ID id-CriticalityDiagnostics                          CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE
      optional },
    ...
}

CommonTransportChannelSetupResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommonTransportChannelType-CTCH-SetupRsp ::= SEQUENCE {
    fACH FACH-CTCH-SetupRsp OPTIONAL,
    -- One of the channels FACH or PCH or both must be present
    pACH PCH-CTCH-SetupRsp OPTIONAL,
    -- One of the channels FACH or PCH or both must be present
    rACH RACH-CTCH-SetupRsp,
    iE-Extensions ProtocolExtensionContainer { { CommonTransportChannelType-CTCH-SetupRsp-ExtIEs} } OPTIONAL,
    ...
}

CommonTransportChannelType-CTCH-SetupRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-CTCH-SetupRsp ::= ProtocolIE-Container {{ FACHIE-CTCH-SetupRsp }}

FACHIE-CTCH-SetupRsp NBAP-PROTOCOL-IES ::= {
    { ID id-FACHItem-CTCH-SetupRsp CRITICALITY ignore TYPE FACHItem-CTCH-SetupRsp PRESENCE mandatory },
    ...
}

FACHItem-CTCH-SetupRsp ::= SEQUENCE {
    fACH-ParametersList-CTCH-SetupRsp FACH-ParametersList-CTCH-SetupRsp OPTIONAL,
    iE-Extensions ProtocolExtensionContainer { { FACHItem-CTCH-SetupRsp-ExtIEs} } OPTIONAL,
    ...
}

FACHItem-CTCH-SetupRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-ParametersList-CTCH-SetupRsp ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRsp

FACH-ParametersItem-CTCH-SetupRsp ::= SEQUENCE {
    commonTransportChannelID CommonTransportChannelID,
    bindingID BindingID,
    transportLayerAddress TransportLayerAddress,
    iE-Extensions ProtocolExtensionContainer { { FACH-ParametersItem-CTCH-SetupRsp-ExtIEs} } OPTIONAL,
    ...
}

```

```

FACH-ParametersItem-CTCH-SetupRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCH-CTCH-SetupRsp ::= ProtocolIE-Container {{ PCHIE-CTCH-SetupRsp }}

PCHIE-CTCH-SetupRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PCHItem-CTCH-SetupRsp    CRITICALITY ignore TYPE PCHItem-CTCH-SetupRsp PRESENCE mandatory },
    ...
}

PCHItem-CTCH-SetupRsp ::= SEQUENCE {
    pCH-Parameters-CTCH-SetupRsp          PCH-Parameters-CTCH-SetupRsp          OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { PCHItem-CTCH-SetupRsp-ExtIEs } } OPTIONAL,
    ...
}

PCHItem-CTCH-SetupRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCH-Parameters-CTCH-SetupRsp ::= SEQUENCE {
    commonTransportChannelID              CommonTransportChannelID,
    bindingID                             BindingID,
    transportLayerAddress                  TransportLayerAddress,
    iE-Extensions                          ProtocolExtensionContainer { { PCH-Parameters-CTCH-SetupRsp-ExtIEs } } OPTIONAL,
    ...
}

PCH-Parameters-CTCH-SetupRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RACH-CTCH-SetupRsp ::= ProtocolIE-Container {{ RACHIE-CTCH-SetupRsp }}

RACHIE-CTCH-SetupRsp NBAP-PROTOCOL-IES ::= {
    { ID id-RACHItem-CTCH-SetupRsp    CRITICALITY ignore TYPE RACHItem-CTCH-SetupRsp PRESENCE mandatory },
    ...
}

RACHItem-CTCH-SetupRsp ::= SEQUENCE {
    rACH-Parameters-CTCH-SetupRsp        RACH-Parameters-CTCH-SetupRsp,
    iE-Extensions                          ProtocolExtensionContainer { { RACHItem-CTCH-SetupRsp-ExtIEs } } OPTIONAL,
    ...
}

RACHItem-CTCH-SetupRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

RACH-Parameters-CTCH-SetupRsp ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    bindingID                     BindingID,
    transportLayerAddress         TransportLayerAddress,
    iE-Extensions                 ProtocolExtensionContainer  { { RACH-Parameters-CTCH-SetupRsp-ExtIEs } }    OPTIONAL,
    ...
}

RACH-Parameters-CTCH-SetupRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- COMMON TRANSPORT CHANNEL SETUP FAILURE
--
-- *****

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

CommonTransportChannelSetupFailure-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Cause             CRITICALITY ignore     TYPE    Cause             PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics CRITICALITY ignore     TYPE    CriticalityDiagnostics PRESENCE optional    }|
    ...
}

CommonTransportChannelSetupFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST FDD
--
-- *****

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

CommonTransportChannelReconfigurationRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID              CRITICALITY reject     TYPE    C-ID                   PRESENCE mandatory   }|
    { ID    id-ConfigurationGenerationID CRITICALITY reject     TYPE    ConfigurationGenerationID PRESENCE mandatory   }|
    { ID    id-FACH-ParametersList-CTCH-ReconfRqstFDD CRITICALITY reject     TYPE    FACH-ParametersList-CTCH-ReconfRqstFDD PRESENCE optional }|
    { ID    id-PCH-Parameters-CTCH-ReconfRqstFDD CRITICALITY reject     TYPE    PCH-Parameters-CTCH-ReconfRqstFDD PRESENCE optional }|
}

```

```

{ ID id-PICH-Parameters-CTCH-ReconfRqstFDD CRITICALITY reject TYPE PICH-Parameters-CTCH-ReconfRqstFDD PRESENCE optional }|
{ ID id-PRACH-ParametersList-CTCH-ReconfRqstFDD CRITICALITY reject TYPE PRACH-ParametersList-CTCH-ReconfRqstFDD PRESENCE optional }|
{ ID id-AICH-ParametersList-CTCH-ReconfRqstFDD CRITICALITY reject TYPE AICH-ParametersList-CTCH-ReconfRqstFDD PRESENCE optional },
...
}

CommonTransportChannelReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
...
}

FACH-ParametersList-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxFACHCell)) OF FACH-ParametersItem-CTCH-ReconfRqstFDD

FACH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
commonTransportChannelID CommonTransportChannelID,
maxFACH-Power DL-Power OPTIONAL,
toAWS ToAWS OPTIONAL,
toAWE ToAWE OPTIONAL,
iE-Extensions ProtocolExtensionContainer { { FACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs } } OPTIONAL,
...
}

FACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

PCH-Parameters-CTCH-ReconfRqstFDD ::= SEQUENCE {
commonTransportChannelID CommonTransportChannelID,
pCH-Power DL-Power OPTIONAL,
toAWS ToAWS OPTIONAL,
toAWE ToAWE OPTIONAL,
iE-Extensions ProtocolExtensionContainer { { PCH-Parameters-CTCH-ReconfRqstFDD-ExtIEs } } OPTIONAL,
...
}

PCH-Parameters-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

PICH-Parameters-CTCH-ReconfRqstFDD ::= SEQUENCE {
commonTransportChannelID CommonTransportChannelID,
pICH-Power DL-Power,
iE-Extensions ProtocolExtensionContainer { { PICH-Parameters-CTCH-ReconfRqstFDD-ExtIEs } } OPTIONAL,
...
}

PICH-Parameters-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

PRACH-ParametersList-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxPRACHCellmaxNrOfPRACHs)) OF PRACH-ParametersItem-CTCH-ReconfRqstFDD

```

```

PRACH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    preambleSignatures           PreambleSignatures,
    allowedSlotFormatInformation AllowedSlotFormatInformationList-CTCH-ReconfRqstFDD OPTIONAL,
    rACH-SubChannelNumbers       RACH-SubChannelNumbers OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { PRACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

PRACH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

| AllowedSlotFormatInformationList-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxnoofSlotFormatsPRACHmaxSF)) OF AllowedSlotFormatInformationItem-CTCH-
ReconfRqstFDD

AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    rACH-SlotFormat              RACH-SlotFormat,
    iE-Extensions                ProtocolExtensionContainer { { AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

AllowedSlotFormatInformationItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

| AICH-ParametersList-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxPRACHCellmaxNrOfPRACHs)) OF AICH-ParametersItem-CTCH-ReconfRqstFDD

AICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID     CommonTransportChannelID,
    aICH-Power                   DL-Power,
    iE-Extensions                ProtocolExtensionContainer { { AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

<CR editor note: Rest of Clause 9.3.3 intentionally not included in this CR. This CR has no changes on rest of 9.3.3>



### 9.3.7 Constant Definitions for NBAP

```

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

NBAP-Constants -- { object identifier to be allocated }--
DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- *****
--
-- Elementary Procedures
--
-- *****

id-audit                               INTEGER ::= 0
id-auditRequired                       INTEGER ::= 1
id-blockResource                       INTEGER ::= 2
id-cellDeletion                        INTEGER ::= 3
id-cellReconfiguration                 INTEGER ::= 4
id-cellSetup                           INTEGER ::= 5
id-commonMeasurementFailure            INTEGER ::= 6
id-commonMeasurementInitiation         INTEGER ::= 7
id-commonMeasurementReport             INTEGER ::= 8
id-commonMeasurementTermination        INTEGER ::= 9
id-commonTransportChannelDelete        INTEGER ::= 10
id-commonTransportChannelReconfigure   INTEGER ::= 11
id-commonTransportChannelSetup         INTEGER ::= 12
id-compressedModeCancellation          INTEGER ::= 13
id-compressedModeCommit                INTEGER ::= 14
id-compressedModePreparation           INTEGER ::= 15
id-dedicatedMeasurementFailure         INTEGER ::= 16
id-dedicatedMeasurementInitiation      INTEGER ::= 17
id-dedicatedMeasurementReport         INTEGER ::= 18
id-dedicatedMeasurementTermination    INTEGER ::= 19
id-downlinkPowerControl                INTEGER ::= 20
id-errorIndication                     INTEGER ::= 21
id-physicalSharedChannelReconfiguration INTEGER ::= 37
id-privateMessage                      INTEGER ::= 22
id-radioLinkAddition                   INTEGER ::= 23
id-radioLinkDeletion                   INTEGER ::= 24
id-radioLinkFailure                    INTEGER ::= 25
id-radioLinkRestoration                 INTEGER ::= 26
id-radioLinkSetup                       INTEGER ::= 27
id-resourceStatusIndication             INTEGER ::= 28
id-synchronisedRadioLinkReconfigurationCancellation INTEGER ::= 29
id-synchronisedRadioLinkReconfigurationCommit INTEGER ::= 30
id-synchronisedRadioLinkReconfigurationPreparation INTEGER ::= 31
id-systemInformationUpdate              INTEGER ::= 32
id-unblockResource                     INTEGER ::= 33
id-unSynchronisedRadioLinkReconfiguration INTEGER ::= 34

-- *****
--
-- Extension constants
--
-- *****

maxPrivateIEs                         INTEGER ::= 65535
maxProtocolExtensions                  INTEGER ::= 65535
maxProtocolIEs                         INTEGER ::= 65535

-- *****
--
-- Lists
--
-- *****

```

```

maxNrOfCodes                INTEGER ::= 10
maxNrOfCmpatterns           INTEGER ::= 8
maxNrOfDLCodes              INTEGER ::= 810
maxNrOfErrors                INTEGER ::= 25610
maxNrOfTFs                  INTEGER ::= 10
maxNrOfTFCs                 INTEGER ::= 10
maxNrOfRLs                  INTEGER ::= 1610
maxNrOfRLSets               INTEGER ::= maxNrofRLs10
maxNrOfDPCHs                INTEGER ::= 10
maxNrOfSCCPCHs              INTEGER ::= 10
maxNrOfPRACHs               INTEGER ::= 10
maxNrOfDCHs                 INTEGER ::= 12810
maxNrOfDSCHs                INTEGER ::= 3210
maxNrOfFACHs                INTEGER ::= 810
maxNrOfCCTrCHs              INTEGER ::= 10
maxNrOfPDSCHs               INTEGER ::= 10
maxNrOfPUSCHs               INTEGER ::= 10
maxNrOfPDSCHSets            INTEGER ::= 10
maxNrOfPUSCHSets            INTEGER ::= 10
maxNrOfULTSs                 INTEGER ::= 15
maxNrOfUSCHs                INTEGER ::= 10
maxnoofSlotFormatsPRACHmaxSF  INTEGER ::= 810
maxCellinNodeB              INTEGER ::= 25610
maxCCPinNodeB               INTEGER ::= 25610
maxCTFC-1                   INTEGER ::= 10
maxLocalCellinNodeB         INTEGER ::= maxCellinNodeB10
maxRACHCell                 INTEGER ::= maxPRACHCell10
maxPRACHCell                INTEGER ::= 1610
maxSCCPCHCell               INTEGER ::= 3210
maxSCPICHCell               INTEGER ::= 3210
maxTTI-count                INTEGER ::= 10
maxIBSEG                    INTEGER ::= 1610
maxIB                        INTEGER ::= 3210
maxFACHCell                 INTEGER ::= maxNrOfFACHs * maxSCCPCHCell10
maxRateMatching             INTEGER ::= 10
maxCodeNrComp-1             INTEGER ::= 10
maxNrOfCodeGroups           INTEGER ::= 10
maxNrOfTFCIGroups           INTEGER ::= 10
maxNrOfTFCI1Combs           INTEGER ::= 10
maxNrOfTFCI2Combs           INTEGER ::= 10
maxCTFC-DCH-1               INTEGER ::= 10
maxCTFC-DSCH-1              INTEGER ::= 10
maxNrOfSF                    INTEGER ::= 8

```

```

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

```

<CR editor note: Rest of Clause 9.3.6 intentionally not included in this CR. This CR has no changes on rest of 9.3.6>



```

-- *****
--
-- Lists
--
-- *****

maxNrOfCodes                INTEGER ::= 10
maxNrOfCmpatterns           INTEGER ::= 8
maxNrOfDLCodes              INTEGER ::= 10
maxNrOfErrors               INTEGER ::= 10
maxNrOfTFs                  INTEGER ::= 10
maxNrOfTFCs                 INTEGER ::= 10
maxNrOfRLs                  INTEGER ::= 10
maxNrOfRLSets               INTEGER ::= 10
maxNrOfDPCHs                INTEGER ::= 240 10
maxNrOfSCCPCHs              INTEGER ::= 8 10
maxNrOfPRACHs               INTEGER ::= 10
maxNrOfDCHs                 INTEGER ::= 10
maxNrOfDSCHs                INTEGER ::= 10
maxNrOfFACHs                INTEGER ::= 10
maxNrOfCCTrCHs              INTEGER ::= 16 10
maxNrOfPDSCHs                INTEGER ::= 256 10
maxNrOfPUSCHs                INTEGER ::= 256 10
maxNrOfPDSCHSets            INTEGER ::= 256 10
maxNrOfPUSCHSets            INTEGER ::= 256 10
maxNrOfULTSs                INTEGER ::= 15
maxNrOfUSCHs                INTEGER ::= 32 10
maxSF                        INTEGER ::= 10
maxCellInNodeB              INTEGER ::= 10
maxCCPinNodeB               INTEGER ::= 10
maxCTFC-1                   INTEGER ::= 10
maxLocalCellInNodeB         INTEGER ::= 10
maxRACHCell                  INTEGER ::= 10
maxPRACHCell                 INTEGER ::= 10
maxSCCPCHCell               INTEGER ::= 10
maxSCPICHCell               INTEGER ::= 10
maxTTI-count                 INTEGER ::= 10
maxIBSEG                     INTEGER ::= 10
maxIB                        INTEGER ::= 10
maxFACHCell                  INTEGER ::= 10
maxRateMatching              INTEGER ::= 10
maxCodeNrComp-1             INTEGER ::= 10
maxNrOfCodeGroups           INTEGER ::= 10
maxNrOfTFCIGroups           INTEGER ::= 10
maxNrOfTFCI1Combs           INTEGER ::= 10
maxNrOfTFCI2Combs           INTEGER ::= 10
maxCTFC-DCH-1               INTEGER ::= 10
maxCTFC-DSCH-1              INTEGER ::= 10

```

```
maxNrOfSF                INTEGER ::= 8
-- *****
--
-- IEs
--
-- *****
```



## 9.4 Message Transfer Syntax

NBAP shall use the ASN.1 [Basic](#) Packed Encoding Rules ([BASIC-PER](#)) Aligned Variant as transfer syntax as specified in ref. [11].

## CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

**25.433 CR 130**

Current Version: **3.1.0.**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **TSG RAN #8**  
 list expected approval meeting # here ↑

For approval for information

Strategic  (for SMG use only)  
 non-strategic

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:** (U)SIM  ME  UTRAN / Radio  Core Network   
 (at least one should be marked with an X)

**Source:** R-WG3 **Date:** May , 2000

**Subject:** Handling of Presence field

**Work item:**

**Category:** F Correction  **Release:** Phase 2   
 A Corresponds to a correction in an earlier release  Release 96   
 B Addition of feature  Release 97   
 C Functional modification of feature  Release 98   
 D Editorial modification  Release 99   
 Release 00

(only one category shall be marked with an X)

**Reason for change:** In the tabular format and in the ASN.1, for many IE's and IE groups a "presence" is specified. Currently no behaviour related to this presence is indicated.  
 This contribution proposes to handle the absence of an IE/IE-group that should have been present according to the presence field in the corresponding object as an abstract syntax error.  
 The proposed handling is aligned with the criticality information specified for the concerning IE/IE-group, since mandatory rejection would disable the possibility of ever removing an IE/IE-group in a backward compatible way.

**Clauses affected:** 9.2.1.16, 10.3.

**Other specs affected:** Other 3G core specifications  → List of CRs:  
 Other GSM core specifications  → List of CRs:  
 MS test specifications  → List of CRs:  
 BSS test specifications  → List of CRs:  
 O&M specifications  → List of CRs:

**Other comments:** Similar contributions are provided for the other application protocols.



## 9.2.1.16 Criticality diagnostics

IE/Group Name	Presence	Range	IE type and reference	Semantics description
<b>Criticality Diagnostics</b>				
Procedure Code	O		INTEGER (0..255)	Procedure code is to be used if Criticality diagnostics is part of Error Indication procedure, and not within the response message of the same operation that caused the error
Triggering Message	O		ENUMERATED (initiating message, successful outcome, unsuccessful outcome, outcome)	The Triggering Message is used only if the Criticality diagnostics is part of Error Indication except when the procedure code is not understood.
Criticality Response	O		ENUMERATED (reject, ignore, notify)	This Criticality response IE is used for reporting the Criticality of the Triggering message
Transaction Id	O		Transaction ID	
<b>Information Element Criticality Diagnostics</b>		1 to <maxnoof errors>		
>Criticality Response	M		ENUMERATED (reject, ignore, notify)	The Criticality response IE is used for reporting the criticality of the triggering IE. The value 'ignore' shall never be used.
>IE Id	M		INTEGER (0..65535)	The IE Id of the not understood <b>or missing</b> IE
>Repetition Number	O		INTEGER (0..255)	The repetition number of the not understood IE if applicable

Range bound	Explanation
<i>maxnooferrors</i>	Maximum no. of IE errors allowed to be reported with a single message. The value for maxnooferrors is 256.

## 10.3 Abstract Syntax Error

### 10.3.1 General

An Abstract Syntax Error occurs when the receiving functional NBAP entity:

1. ~~receives IEs or IE groups that cannot be understood (unknown id);~~
2. ~~The abstract syntax error also appears~~ receives IEs for which if the logical range of an IE is violated (e.g.: ASN.1 definition: 0 to 15, the logical range is 0 to 10 (values 11 to 15 are undefined), and 12 will be received; this case will be handled as an abstract syntax error using criticality information sent by the originator of the message);
3. ~~does not receive IEs or IE groups but according to the specified presence of the concerning object, the IEs or IE groups should have been present in the received message.~~

~~Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver.~~

~~If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error act according to the Criticality Information and Presence Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclauses 10.3.4 and 10.3.5.~~

### 10.3.1 General

~~In the NBAP messages there is criticality information set for individual IEs and/or sequences of IEs. This criticality information instructs the receiver how to act when receiving an IE that is not comprehended. An IE shall be regarded as not comprehended if the receiving node either cannot decode the IE or does not comprehend the function represented by the IE value. The case of the not comprehended IE is an Abstract Syntax Error.~~

~~If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error act according to the Criticality Information for the IE or sequences of IEs due to which Abstract Syntax Error occurred in accordance with chapter 10.3.2.~~

~~The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information are:~~

- ~~— Reject IE~~
- ~~— Ignore IE and Notify Sender~~
- ~~- Ignore IE~~

### 10.3.2 Definition of Criticality Information

In the NBAP messages there is criticality information set for individual IEs and/or IE groups. This criticality information instructs the receiver how to act when receiving an IE or an IE group that is not comprehended, i.e. the entire item (IE or IE group) which is not (fully or partially) comprehended shall be treated in accordance with its own criticality information as specified in chapter 10.3.4~~3~~.

~~In addition, the criticality information is used in case of the missing IE/IE group abstract syntax error (see subclause 10.3.5).~~

~~If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error act according to the Criticality Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with chapter 10.3.3.~~

The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information for an IE/IE group are:

- Reject IE

- Ignore IE and Notify Sender
- Ignore IE

### 10.3.3 Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, NBAP specifies separately if the presence of these IEs/IE groups is optional or mandatory with respect to RNS application by means of the presence field of the concerning object of class NBAP-PROTOCOL-IES, NBAP-PROTOCOL-IES-PAIR, NBAP-PROTOCOL-EXTENSION or NBAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

1. Optional;
2. Conditional;
3. Mandatory.

If an IE/IE group is not included in a received message and the presence of the IE/IE group is mandatory or the presence is conditional and the condition is true according to the version of the specification used by the receiver, an abstract syntax error occurs due to a missing IE/IE group.

### 10.3.4 Not comprehended IE/IE group

### ~~10.3.3 Handling of the Criticality Information at Reception~~

#### 10.3.4.1 Procedure Code

The receiving node shall treat the different types of received criticality information of the *Procedure Code* according to the following:

##### **Reject IE:**

- If a message is received with a *Procedure Code* marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall reject the procedure using the Error Indication procedure.

##### **Ignore IE and Notify Sender:**

- If a message is received with a *Procedure Code* marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the procedure and initiate the Error Indication procedure.

##### **Ignore IE:**

- If a message is received with a *Procedure Code* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

#### 10.3.4.2 IEs other than the Procedure Code

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure Code* according to the following:

##### **Reject IE:**

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure.

- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall initiate the Error Indication procedure.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE*" that the receiving node does not comprehend, the receiving node shall initiate local error handling.

#### **Ignore IE and Notify Sender:**

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using only the understood IEs/IE groups and report in the response message of the procedure that one or more IEs/IE groups have been ignored.
- If a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and initiate the Error Indication procedure.

#### **Ignore IE:**

- If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using only the understood IEs/IE groups.

### 10.3.5 Missing IE or IE group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

#### Reject IE:

- if a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure.
- if a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall initiate the Error Indication procedure.
- if a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall initiate local error handling.

#### Ignore IE and Notify Sender:

- if a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing.
- if a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall initiate the Error Indication procedure.

#### Ignore IE:

- if a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall continue with the procedure based on the other IEs/IE groups present in the message.

<b>CHANGE REQUEST</b>		Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.	
<b>25.433 CR CR131</b>		Current Version: <b>3.1.0</b>	
GSM (AA.BB) or 3G (AA.BBB) specification number ↑		↑ CR number as allocated by MCC support team	
For submission to: <b>TSG RAN #8</b>	for approval for information	<input checked="" type="checkbox"/>	strategic <input type="checkbox"/> non-strategic <input type="checkbox"/> (for SMG use only)
list expected approval meeting # here ↑			

Form: CR cover sheet, version 2 for 3GPP and SMG The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:** (U)SIM  ME  UTRAN / Radio  Core Network   
(at least one should be marked with an X)

**Source:** R-WG3 **Date:** April 2000

**Subject:** Basic NBAP Protocol Robustness

**Work item:**

<b>Category:</b>	F Correction <input type="checkbox"/> A Corresponds to a correction in an earlier release <input type="checkbox"/> B Addition of feature <input type="checkbox"/> C Functional modification of feature <input checked="" type="checkbox"/> D Editorial modification <input type="checkbox"/>	<b>Release:</b>	Phase 2 <input type="checkbox"/> Release 96 <input type="checkbox"/> Release 97 <input type="checkbox"/> Release 98 <input type="checkbox"/> Release 99 <input checked="" type="checkbox"/> Release 00 <input type="checkbox"/>
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(only one category shall be marked with an X)

**Reason for change:**

In the current NBAP specification there are no procedure timers defined. Further more, the procedure parallelism is quite restricted. This may under some circumstances lead to hangings, e.g. if there the Node B receives no RL RECONFIGURATION COMMIT or RL RECONFIGURATION CANCEL message when a reconfiguration has been prepared there may be hanging resources in the Node B. Further more, if this situation is due to a RL RECONFIGURATION COMMIT or RL RECONFIGURATION CANCEL message being "lost" (not in the transport layer) the Node B may ignore any message not allowed while a Prepared reconfiguration exists since it still waits for a RL RECONFIGURATION COMMIT or RL RECONFIGURATION CANCEL message.

To ensure that it is always possible for the CRNC to "get out of" such situations (no matter how strange) it is proposed to allow the RL Deletion procedure under any circumstance, while there still exists a radio link.

**Clauses affected:** 8.3.3.1

<b>Other specs affected:</b>	Other 3G core specifications <input type="checkbox"/> Other GSM core specifications <input type="checkbox"/> MS test specifications <input type="checkbox"/> BSS test specifications <input type="checkbox"/> O&M specifications <input type="checkbox"/>	→ List of CRs: → List of CRs: → List of CRs: → List of CRs: → List of CRs:	TS 25.423 CR112
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**Other comments:**

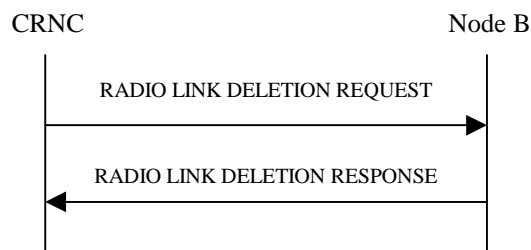
## 8.3.6 Radio Link Deletion

### 8.3.6.1 General

The Radio Link Deletion procedure is used to release the resources in a Node B for one or more established radio links towards a UE.

The Radio Link Deletion procedure may be initiated by the CRNC at any time when the Node B Communication Context exists, except when the CRNC has requested deletion of the last Radio Link for the Node B Communication Context shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

### 8.3.6.2 Successful Operation



**Figure 36: Radio Link Deletion procedure: Successful Operation**

The procedure is initiated with a RADIO LINK DELETION REQUEST message sent from the CRNC to the Node B.

Upon receipt of this message, the Node B shall delete the radio link(s) identified in the message and release all associated resources and respond to the CRNC with a RADIO LINK DELETION RESPONSE message.

### 8.3.6.3 Unsuccessful Operation

-

### 8.3.6.4 Abnormal Conditions

-

## CHANGE REQUEST

Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.

**25.433 CR 132**

Current Version: **3.1.0.**

GSM (AA.BB) or 3G (AA.BBB) specification number ↑

↑ CR number as allocated by MCC support team

For submission to: **TSG-RAN #8**  
list expected approval meeting # here  
↑

for approval   
for information

strategic   
non-strategic  (for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG

The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:** (U)SIM  ME  UTRAN / Radio  Core Network   
(at least one should be marked with an X)

**Source:** R-WG3 **Date:** May 2000

**Subject:** Granularity of Maximum DL Power Capability and Maximum Transmission Power.

**Work item:**

**Category:** F Correction  **Release:** Phase 2   
A Corresponds to a correction in an earlier release  Release 96   
(only one category shall be marked with an X) B Addition of feature  Release 97   
C Functional modification of feature  Release 98   
D Editorial modification  Release 99   
Release 00

**Reason for change:** The 1dB granularity of Maximum DL Power Capability and Maximum Transmission Power does not give sufficient accuracy and may mean a waste of Node-B resources.

The IE Maximum Transmission Power is used to set the maximum power that the Node B is allowed to use in a cell. It is very important that the setting of the power does not introduce any significant additional truncating of the maximum power that the Node B is capable of using. For example having a 1 dB resolution and a Node B capable of transmitting 43.5 dBm in a cell will lead to a need to truncate the setting of the power to 43.0 dBm meaning that 0.5dB capacity is lost.

Therefore the granularity is proposed to be changed from 1dB to 0.1 dB.

**Clauses affected:** 9.2.1.35, 9.2.1.36, 9.3.4

**Other specs affected:** Other 3G core specifications  → List of CRs:  
Other GSM core specifications  → List of CRs:  
MS test specifications  → List of CRs:  
BSS test specifications  → List of CRs:  
O&M specifications  → List of CRs:

**Other comments:**



help.doc

<----- double-click here for help and instructions on how to create a CR.



## 9.2.1.35 Maximum DL Power Capability

This parameter indicates the maximum DL power capability for a local cell within Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Maximum DL Power Capability			ENUMERATED(0...50)	dBm, granularity 0.1 dB 0: 0 dBm 1: 0.1 dBm ... 499: 49.9 dBm 500: 50.0 dBm

### 9.2.1.36 Maximum Transmission Power

Maximum Transmission Power is maximum power for all downlink channels added together, that is allowed to be used simultaneously in a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum transmission Power			ENUMERATED(0, <u>+1</u> , <u>+2</u> .. <u>500</u> )	Unit dBm Granularity <u>+0.1</u> dB <u>0</u> : 0 dBm <u>1</u> : 0.1 dBm ... <u>499</u> : 49.9 dBm <u>500</u> : 50.0 dBm

```
-- =====  
-- M  
-- =====  
| MaximumDL-PowerCapability ::= INTEGER(0..500)  
-- Unit dBm, Range 0dBm .. 50dBm, Step +0.1dB  
| MaximumTransmissionPower ::= INTEGER(0..500)  
-- Unit dBm, Range 0dB .. 50dBm, Step +0.1dB
```