

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

TSGRP#8(00)0251

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
R3-001283	25.433	135		Addition of DL TPC step sizes	F	agreed	3.1.0	3.2.0
R3-001297	25.433	139		Clarification of notations used in NBAP	D	agreed	3.1.0	3.2.0
R3-001300	25.433	140		Definition Node B and CRNC communication	F	agreed	3.1.0	3.2.0
R3-001305	25.433	142		Clarification of Common measurement object IE	D	agreed	3.1.0	3.2.0
R3-001309	25.433	125		AICH Transmitting Timing IE corrections	F	agreed	3.1.0	3.2.0
R3-001310	25.433	126		Message type IE corrections	F	agreed	3.1.0	3.2.0
R3-001311	25.433	127		RACH Slot format IE mismatch	F	agreed	3.1.0	3.2.0
R3-001320	25.433	113		(ASN.1) Error Indication and Private message for	F	agreed	3.1.0	3.2.0
R3-001350	25.433	103	1	Clarification of Radio Link Reconfiguration with	F	agreed	3.1.0	3.2.0
R3-001360	25.433	120		Measurement periods and accuracy for TDD	F	agreed	3.1.0	3.2.0
R3-001420	25.433	151		Editorial corrections for NBAP (IEs)	D	agreed	3.1.0	3.2.0
R3-001432	25.433	152		Definition of the Relation between the Tabular	F	agreed	3.1.0	3.2.0

R3-001445	25.433	154		Correction of reference handling and some other	D	agreed	3.1.0	3.2.0
R3-001450	25.433	158		Updated CR on cause values on msg and RL	F	agreed	3.1.0	3.2.0
R3-001453	25.433	159		DL ISCP values for Node B	B	agreed	3.1.0	3.2.0
R3-001469	25.433	112	1	Editorial correction for NBAP ASN.1	D	agreed	3.1.0	3.2.0
R3-001476	25.433	150	1	Correction of CR implementation on version	F	agreed	3.1.0	3.2.0
R3-001480	25.433	160		Section 9.1 alignment	D	agreed	3.1.0	3.2.0
R3-001484	25.433	118	1	Introduction of Rx Timing Deviation measurement	B	agreed	3.1.0	3.2.0
R3-001488	25.433	141	1	Mismatch between measurement type and	F	agreed	3.1.0	3.2.0

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	103r1	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 <small>list expected approval meeting # here ↑</small>	for approval <input checked="" type="checkbox"/>	strategic <input type="checkbox"/>	(for SMG use only)
	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:** May 2000

Subject: Clarification of Radio Link Reconfiguration with CCTrCH and DPCH deletion in TDD

Work item:

Category:	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"/>	Release:	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: The current Radio Reconfiguration procedures are not clear enough involving the deletion of CCTrCH's or DPCH's

Revision 1 – Various changes in ASN.1 for syntax errors and matching of tabular format, highlighted in yellow.

Clauses affected: 8.3.2.2, 8.3.5.2, 9.1.41.2, 9.1.46.2, 9.3.3, 9.3.7

Other specs affected:	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:

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

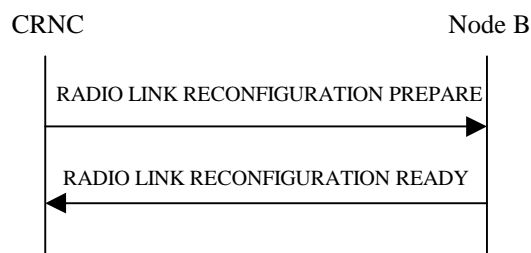


Figure 30: Synchronised Radio Link Reconfiguration procedure, Successful Operation

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.]~~

[FDD - 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.

[FDD - 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.

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any of *TFCS* IE, *TFCI coding* IE or *Puncture limit* IE the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any DPCH to be added , the Node B shall include this DPCH in the new configuration.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any DPCH to be deleted, the Node B shall remove this DPCH in the new configuration.]

[TDD – If the RADIO LINK RECONFIGURATION PREPARE message includes any DPCH to be modified, and includes any of *TDD Channelisation Code* IE, *Burst Type* IE, *Midamble shift* IE, *Time Slot* IE, *TDD Physical Channel Offset* IE, *Repetition Period* IE, *Repetition Length* IE, or *TFCI presence* IE the Node B shall apply these as the new values, otherwise the old values specified for this DPCH are still applicable.]

[TDD – UL/DL CCTrCH Addition]

[TDD -If the RADIO LINK RECONFIGURATION PREPARE message includes any UL or DL CCTrCH to be added , the Node B shall include this CCTrCH in the new configuration.]

[TDD – UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any UL or DL CCTrCH to be deleted , the Node B shall remove this CCTrCH 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

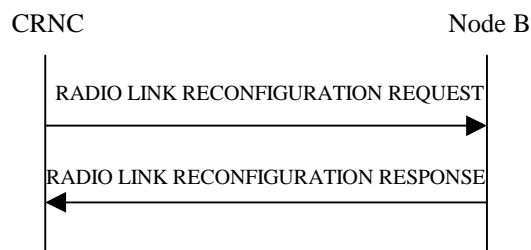


Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation

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:

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes on the *TFCS IE for the UL(UL) IE*, the Node B shall apply the new TFCS in the Uplink of ~~{TDD—the CCTrCH of}~~ the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes on the *TFCS IE for the DL(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.

[TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST includes *TFCS IE*, and/or *Puncture limit IE* the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

[TDD – UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any UL or DL CCTrCH to be deleted, the Node B shall not include this CCTrCH 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.

9.1.41 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				–	
UL DPCH Information		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 DPCH Slot Format	O				–	
>SSDT Cell Identity Length	O				–	
>S-Field Length	O				–	
DL DPCH Information		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			
DCHs to Modify		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				–	
DCHs to Add		0..<max noofDC Hs>			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	M				–	
>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				–	

DCHs to Delete		<i>0..<max noofDC Hs></i>			GLOBAL	reject
>DCH ID	M				–	
DSCH to modify		<i>0..<max noofDS CHs></i>			YES	reject
>DSCH ID	M				–	
>Transport Format Set	O			For the DL.	–	
>Frame Handling Priority	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
DSCH to add		<i>0..<max noofDS CHs></i>			YES	reject
>DSCH ID	M				–	
>Transport Format Set	M			For the DL.	–	
>Frame Handling Priority	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
DSCH to Delete		<i>0..<max noofDS CHs></i>			YES	reject
>DSCH ID	M				–	
RL Information		<i>0..<max noofRLs ></i>			EACH	reject
>RL ID	M				–	
>DL Code Information		<i>0..<max noofDL Codes<</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>MaxnoofDLCodes</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				-	
UL CCTrCH Information to Add		0.. <maxno of CCTrCHs>			GLOBAL	reject
>CCTrCH ID	M				-	
>TFCS	OM				-	
>TFCI Coding	OM				-	
>Puncture Limit	OM				-	
>UL DPCH Information		0.. <maxno of DPCHs >			GLOBAL	reject
>>DPCH ID	M				-	
>>TDD Channelisation Code	OM				-	
>>Burst Type	OM				-	
>>Midamble Shift	OM				-	
>>Time Slot	OM				-	
>>TDD Physical channel Offset	OM				-	
>>Repetition Period	OM				-	
>>Repetition Length	OM				-	
>>TFCI Presence	OM				-	
UL CCTrCH to Modify		0.. <maxno of CCTrCHs>			GLOBAL	reject
>CCTrCH ID	M				=	
>TFCS	O				=	
>TFCI Coding	O				=	
>Puncture Limit	O				=	
>UL DPCH to add		0.. <maxno of DPCHs >			GLOBAL	reject
>>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				=	

>UL DPCH to modify		0.. <maxno of DPCHs >			GLOBAL	reject
>>DPCH ID	M				=	
>>TDD Channelisation Code	Q				=	
>>Burst Type	Q				=	
>>Midamble Shift	Q				=	
>>Time Slot	Q				=	
>>TDD Physical channel Offset	Q				=	
>>Repetition Period	Q				=	
>>Repetition Length	Q				=	
>>TFCI Presence	Q				=	
>UL DPCH to delete		0.. <maxno of DPCHs >			GLOBAL	reject
>>DPCH ID	M				=	
UL CCTrCH to Delete		0.. <maxno of CCTrC Hs>			GLOBAL	reject
>CCTrCH ID	M				=	
DL CCTrCH Information to Add		0.. <maxno of CCTrC Hs			GLOBAL	reject
>CCTrCH ID	M				-	
>TFCS	QM				-	
>TFCI Coding	QM				-	
>Puncture Limit	M				-	
>DL DPCH Information		0.. <maxno of DPCHs >			GLOBAL	reject
>>DPCH ID	M				-	
>>TDD Channelisation Code	QM				-	
>>Burst Type	QM				-	
>>Midamble Shift	QM				-	
>>Time Slot	QM				-	
>>TDD Physical Channel Offset	QM				-	
>>Repetition Period	QM				-	
>>Repetition Length	QM				-	
>>TFCI Presence	QM				-	
DL CCTrCH to Modify		0.. <maxno of CCTrC Hs			GLOBAL	reject
>CCTrCH ID	M				=	
>TFCS	Q				=	
>TFCI Coding	Q				=	

>PunctureLimit	<u>Q</u>				=	
>DL DPCH to add		0.. <maxno of DPCHs >			GLOBAL	reject
>>DPCH ID	<u>M</u>				=	
>>TDD Channelisation Code	<u>M</u>				=	
>>Burst Type	<u>M</u>				=	
>>Midamble Shift	<u>M</u>				=	
>>Time Slot	<u>M</u>				=	
>>TDD Physical Channel Offset	<u>M</u>				=	
>>Repetition Period	<u>M</u>				=	
>>Repetition Length	<u>M</u>				=	
>>TFCI Presence	<u>M</u>				=	
>DL DPCH to modify		0.. <maxno of DPCHs >			GLOBAL	reject
>>DPCH ID	<u>M</u>				=	
>>TDD Channelisation Code	<u>Q</u>				=	
>>Burst Type	<u>Q</u>				=	
>>Midamble Shift	<u>Q</u>				=	
>>Time Slot	<u>Q</u>				=	
>>TDD Physical Channel Offset	<u>Q</u>				=	
>>Repetition Period	<u>Q</u>				=	
>>Repetition Length	<u>Q</u>				=	
>>TFCI Presence	<u>Q</u>				=	
>DL DPCH to delete		0.. <maxno of DPCHs >			GLOBAL	reject
>>DPCH ID	<u>M</u>				=	
DL CCTrCH to Delete		0.. <maxno of CCTrC Hs			GLOBAL	reject
>CCTrCH ID	<u>M</u>				=	
DCHs to Modify		0..<max noofDC Hs>			GLOBAL	reject
>DCH ID	<u>M</u>				-	
>CCTrCH ID	<u>O</u>			UL CCTrCH in which the DCH is mapped.	-	
>CCTrCH ID	<u>O</u>			DL CCTrCH in which the DCH is mapped	-	
>Transport Format Set	<u>O</u>			For the UL.	-	
>Transport Format Set	<u>O</u>			For the DL.	-	
>Frame Handling Priority	<u>O</u>				-	
>UL FP Mode	<u>O</u>				-	

>ToAWS	O				-	
>ToAWE	O				-	
DCHs to Add		<i>0..<max noofDC Hs></i>			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 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				-	
DCHs to Delete		<i>0..<max noofDC Hs></i>			GLOBAL	reject
>DCH ID	M				-	
DSCH Information to modify		<i>0 .. <Maxno of DSCHs ></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				-	
DSCH Information to add		<i>0 .. <Maxno of DSCHs ></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				-	
DSCH Information to delete		<i>0 .. <Maxno of DSCHs ></i>			GLOBAL	reject
>DSCH ID	M				-	

USCH Information to modify		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				–	
>Transport Format Set	O				–	
>CCTrCH ID	O			UL CCTrCH in which the USCH is mapped	–	
USCH Information to add		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M				–	
USCH Information to delete		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				–	
RL Information		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				–	
UL DPCH Information		0..1			YES	reject
>TFCS	O			For the UL.	–	
DL DPCH Information		0..1			YES	reject
>TFCS	O			For the DL.	–	
>TFCI Signalling Mode	O				–	
>PDSCH code mapping	O					
>PDSCH RL ID	O		RL ID			
DCHs to Modify		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				–	
DCHs to Add		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	M				–	
>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				–	
DCHs to Delete		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M				–	
DSCH to Modify		0..<maxn oofDSCH s>			YES	reject
>DSCH ID	M				–	
>Transport Format Set	O			For the DL.	–	
>Frame Handling Priority	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
DSCH to Add		0..<maxn oofDSCH s>			YES	reject

>DSCH ID	M				–	
>Transport Format Set	M			For the DL.	–	
>Frame Handling Priority	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
DSCH to Delete		0..1			YES	reject
>DSCH ID	M				–	
Radio Link Information		0..<maxn oofRLs>			EACH	reject
>RL ID	M				–	
>Maximum DL Power	O		DL Power		–	
>Minimum DL Power	O		DL Power		–	

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.

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				–	
UL CCTrCH Information to modify		<i>0..<maxn oofCCTrCHs></i>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	O				–	
>Puncture Limit	O				–	
UL CCTrCH to delete		<i>0..<maxn oofCCTrCHs></i>			<u>EACH</u>	<u>notify</u>
<u>>CCTrCH ID</u>	<u>M</u>				<u>–</u>	
DL CCTrCH Information to modify		<i>0..<maxn oofCCTrCHs></i>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	O				–	
>Puncture Limit	O				–	
DL CCTrCH to delete		<i>0..<maxn oofCCTrCHs></i>			<u>EACH</u>	<u>notify</u>
<u>>CCTrCH ID</u>	<u>M</u>				<u>–</u>	
DCHs to Modify		<i>0..<maxn oofDCHs></i>			GLOBAL	reject
>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				–	
DCHs to Add		<i>0..<maxn oofDCHs></i>			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 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				–	
DCHs to Delete		0..<maxnoofDSCHs>			GLOBAL	reject
>DCH ID	M				–	
DSCH Information to modify		0 .. <Maxnoof 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				–	
DSCH Information to add		0 .. <Maxnoof 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				–	
DSCH Information to delete		0 .. <Maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M				–	
USCH Information to modify		0 .. <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	O			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	O				–	
USCH Information to add		0 .. <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M				–	
USCH Information to delete		0 .. <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M				–	

RL Information		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

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-InformationAddItem-RL-ReconfRqstTDD,~~
~~id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,~~
~~id-DL-CCTrCH-InformationAddList-RL-ReconfRqstTDD,~~
~~id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,~~
~~id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,~~
~~id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,~~
~~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-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,~~
~~id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,~~
~~id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,~~
~~id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,~~
~~id-DL-DPCH-InformationDeleteListIE-RL-ReconfPrepTDD,~~
 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-InformationModify-AddListIE-RL-ReconfPrepTDD,~~
~~id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,~~
~~id-DL-DPCH-InformationModify-ModifyListIE-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-InformationAddList-RL-ReconfPrepTDD,~~
~~id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,~~
~~id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,~~
~~id-UL-CCTrCH-InformationDeleteList-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-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,~~
~~id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,~~
~~id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,~~
~~id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD,~~
~~id-UL-DPCH-InformationModifyListIE-RL-ReconfPrepTDD,~~
 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-InformationModify-AddListIE-RL-ReconfPrepTDD,~~
~~id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD,~~
~~id-UL-DPCH-InformationModify-ModifyListIE-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,

```
-- *****
--
-- 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-InformationAddList-RL-ReconfPrepTDD    CRITICALITY    reject    TYPE UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID      id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD    CRITICALITY    reject    TYPE UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID      id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD    CRITICALITY    reject    TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID      id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD    CRITICALITY    reject    TYPE DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID      id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD    CRITICALITY    reject    TYPE DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
      PRESENCE optional } |
    { ID      id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD    CRITICALITY    reject    TYPE DL-CCTrCH-InformationDeleteList-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-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                CCTrCH-ID,
    tFCS                      TFCs OPTIONAL,
    tFCI-Coding               TFCI-Coding OPTIONAL,
    punctureLimit             PunctureLimit OPTIONAL,
    ul-DPCH-InformationList   UL-DPCH-InformationAddList-RL-ReconfPrepTDD OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { { UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
    ...
}

UL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= ProtocolIE-Container {{ UL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD }}

UL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD CRITICALITY reject TYPE UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD PRESENCE
    mandatory },
    ...
}

UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationAddItem-RL-ReconfPrepTDD

UL-DPCH-InformationAddItem-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-InformationAddItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
    ...
}

UL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD

UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {

```

```

cCtRCH-ID          CCTrCH-ID,
tFCS               TFCS                OPTIONAL,
tFCI-Coding       TFCI-Coding          OPTIONAL,
punctureLimit     PunctureLimit       OPTIONAL,
ul-DPCH-InformationAddList      UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD OPTIONAL,
ul-DPCH-InformationModifyList   UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD OPTIONAL,
ul-DPCH-InformationDeleteList   UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD OPTIONAL,
iE-Extensions     ProtocolExtensionContainer { { UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
...
}

UL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

UL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD ::= ProtocolIE-Container { { UL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD } }
UL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
{ ID id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD  CRITICALITY reject  TYPE UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD
  PRESENCE mandatory },
...
}

UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD
UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= 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-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
  ...
}

UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Container { { UL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD } }
UL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
{ ID id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD  CRITICALITY reject  TYPE UL-DPCH-InformationModify-ModifyListIE-RL-
ReconfPrepTDD  PRESENCE mandatory },
...
}

```


UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD

```
UL-DPCH-InformationModify-ModifyItem-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-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}
```

UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

...
}

UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Container {{ UL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD }}

```
UL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD CRITICALITY reject TYPE UL-DPCH-InformationModify-DeleteListIE-RL-
  ReconfPrepTDD PRESENCE mandatory },
  ...
}
```

UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD

```
UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dPCH-ID                DPCH-ID,
  iE-Extensions         ProtocolExtensionContainer { { UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}
```

UL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD

```
UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
  cCTrCH-ID              CCTrCH-ID,
  iE-Extensions         ProtocolExtensionContainer { { UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
  ...
}
```

UL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

...
]

DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
 cCTrCH-ID CTrCH-ID,
 tFCS TFCS OPTIONAL,
 tFCI-Coding TFCI-Coding OPTIONAL,
 punctureLimit PunctureLimit OPTIONAL,
 dl-DPCH-InformationList DL-DPCH-InformationAddList-RL-ReconfPrepTDD OPTIONAL,
 iE-Extensions ProtocolExtensionContainer { { DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs } }
 OPTIONAL,
 ...
 }

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
 ...
 }

DL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= ProtocolIE-Container {{ DL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD }}

DL-DPCH-InformationAddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
 { ID id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD CRITICALITY reject TYPE DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD PRESENCE
 mandatory },
 ...
 }

DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-DPCH-InformationAddItem-RL-ReconfPrepTDD

DL-DPCH-InformationAddItem-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-InformationAddItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
 ...
 }

DL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
 ...
 }

~~DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD~~

~~DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {~~

```

cTrCH-ID          CTrCH-ID,
tFCS              TFCS              OPTIONAL,
tFCI-Coding      TFCI-Coding          OPTIONAL,
punctureLimit    PunctureLimit      OPTIONAL,
dl-DPCH-InformationAddList DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD OPTIONAL,
dl-DPCH-InformationModifyList DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD OPTIONAL,
dl-DPCH-InformationDeleteList DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD OPTIONAL,
iE-Extensions    ProtocolExtensionContainer { { DL-CTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs } }
OPTIONAL,
...
}

DL-CTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD ::= ProtocolIE-Container {{ DL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD }}

DL-DPCH-InformationModify-AddListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
{ ID id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD  CRITICALITY reject          TYPE DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD
  PRESENCE mandatory },
...
}

DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD

DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dPCH-ID          DPCH-ID,
  tdd-ChannelisationCode TDD-ChannelisationCode,
  burstType        BurstType,
  midambleShift    MidambleShift,
  timeSlot         TimeSlot,
  tdd-PhysicalChannelOffset TDD-PhysicalChannelOffset,
  repetitionPeriod RepetitionPeriod,
  rpetitionLength  RepetitionLength,
  tFCI-Presence    TFCI-Presence,
  iE-Extensions    ProtocolExtensionContainer { { DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs } } OPTIONAL,
  ...
}

DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
...
}

DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Container {{ DL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD }}

DL-DPCH-InformationModify-ModifyListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
{ ID id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD  CRITICALITY reject          TYPE DL-DPCH-InformationModify-ModifyListIE-RL-
ReconfPrepTDD          PRESENCE mandatory },
...
}

```

DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD

```
DL-DPCH-InformationModify-ModifyItem-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-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}
```

```
DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Container { { DL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD } }

```
DL-DPCH-InformationModify-DeleteListIEs-RL-ReconfPrepTDD NBAP-PROTOCOL-IES ::= {
  { ID id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD CRITICALITY reject TYPE DL-DPCH-InformationModify-DeleteListIE-RL-
  ReconfPrepTDD PRESENCE mandatory },
  ...
}
```

DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD

```
DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dPCH-ID                DPCH-ID,
  iE-Extensions         ProtocolExtensionContainer { { DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}
```

```
DL-DPCH-InformationModify-DeleteItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD

```
DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
  cCTrCH-ID              CCTrCH-ID,
  iE-Extensions         ProtocolExtensionContainer { { DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD-ExtIEs } }
  OPTIONAL,
  ...
}
```

DL-CCTrCH-InformationDeleteItem-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-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-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-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-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 ::= {  
    ...  
}
```



```
-- *****
--
-- 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-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD          CRITICALITY    notify          TYPE    UL-CCTrCH-InformationModifyList-RL-
      ReconfRqstTDD          PRESENCE  optional } |
    { ID      id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD          CRITICALITY    notify          TYPE    UL-CCTrCH-InformationDeleteList-RL-
      ReconfRqstTDD          PRESENCE  optional } |
    { ID      id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD          CRITICALITY    notify          TYPE    DL-CCTrCH-InformationModifyList-RL-
      ReconfRqstTDD          PRESENCE  optional } |
    { ID      id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD          CRITICALITY    notify          TYPE    DL-CCTrCH-InformationDeleteList-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-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Container {{ UL-CCTrCH-InformationModifyItemIE-
RL-ReconfRqstTDD}}

UL-CCTrCH-InformationModifyItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD CRITICALITY notify TYPE UL-CCTrCH-InformationModifyItem-RL-
ReconfRqstTDD PRESENCE mandatory},
  ...
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
  cCTrCH-ID CCTrCH-ID,
  tFCS TFCS OPTIONAL,
  punctureLimit PunctureLimit OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { { UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs } }
  OPTIONAL,
  ...
}

UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Container {{ UL-CCTrCH-InformationDeleteItemIE-
RL-ReconfRqstTDD}}

UL-CCTrCH-InformationDeleteItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD CRITICALITY notify TYPE UL-CCTrCH-InformationDeleteItem-RL-
ReconfRqstTDD PRESENCE mandatory},
  ...
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
  cCTrCH-ID CCTrCH-ID,
  iE-Extensions ProtocolExtensionContainer { { UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs } }
  OPTIONAL,
  ...
}

UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Container {{ DL-CCTrCH-InformationModifyItemIE-
RL-ReconfRqstTDD}}

DL-CCTrCH-InformationModifyItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD CRITICALITY notify TYPE DL-CCTrCH-InformationModifyItem-RL-
ReconfRqstTDD PRESENCE mandatory},
  ...
}

```

```
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID          CCTrCH-ID,
    tFCS              TFCS          OPTIONAL,
    punctureLimit    PunctureLimit OPTIONAL,
    iE-Extensions    ProtocolExtensionContainer { { DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}
```

```
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Container { { DL-CCTrCH-InformationDeleteItemIE-RL-ReconfRqstTDD } }
```

```
DL-CCTrCH-InformationDeleteItemIE-RL-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD PRESENCE mandatory },
    ...
}
```

```
DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID          CCTrCH-ID,
    iE-Extensions    ProtocolExtensionContainer { { DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs } }
    OPTIONAL,
    ...
}
```

```
DL-CCTrCH-InformationDeleteItem-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 ::= {
    ...
}

```

```
-- *****
--
-- 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-InformationAddList-RL-ReconfPrepTDD	INTEGER ::= 71
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD	INTEGER ::= 72
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	INTEGER ::= 73
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD	INTEGER ::= 74
id-DL-CCTrCH-InformationItem-RL-ReconfRqstTDD	INTEGER ::= 71
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD	INTEGER ::= 75 2
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD	INTEGER ::= 76 3
id-DL-CCTrCH-InformationList-RL-ReconfPrepTDD	INTEGER ::= 74
id-DL-CCTrCH-InformationList-RL-ReconfRqstTDD	INTEGER ::= 75
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 77 6
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD	INTEGER ::= 78
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	INTEGER ::= 79
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	INTEGER ::= 80
id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD	INTEGER ::= 81
id-DL-DPCH-InformationDeleteListIE-RL-ReconfPrepTDD	INTEGER ::= 82
id-DL-DPCH-InformationItem-RL-AdditionRqstTDD	INTEGER ::= 83 7
id-DL-DPCH-InformationList-RL-AdditionRqstTDD	INTEGER ::= 84 7 8
id-DL-DPCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 85 7 9
id-DL-DPCH-InformationListIE-RL-ReconfPrepTDD	INTEGER ::= 80
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD	INTEGER ::= 86
id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD	INTEGER ::= 87
id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD	INTEGER ::= 88
id-DL-DPCH-Information-RL-ReconfPrepFDD	INTEGER ::= 89 8 1

id-DL-DPCH-Information-RL-ReconfRqstFDD	INTEGER ::= 9082
id-DL-DPCH-Information-RL-SetupRqstFDD	INTEGER ::= 9183
id-DL-ReferencePowerInformation-DL-PC-Rqst	INTEGER ::= 9284
id-DLReferencePower	INTEGER ::= 9385
id-DLReferencePowerList-DL-PC-Rqst	INTEGER ::= 9486
id-DSCH-AddItem-RL-ReconfPrepFDD	INTEGER ::= 9587
id-DSCH-AddItem-RL-ReconfRqstFDD	INTEGER ::= 9688
id-DSCH-AddList-RL-ReconfPrepFDD	INTEGER ::= 9789
id-DSCH-AddList-RL-ReconfRqstFDD	INTEGER ::= 9890
id-DSCH-DeleteItem-RL-ReconfPrepFDD	INTEGER ::= 9991
id-DSCH-DeleteItem-RL-ReconfRqstFDD	INTEGER ::= 10092
id-DSCH-DeleteList-RL-ReconfPrepFDD	INTEGER ::= 10193
id-DSCH-DeleteList-RL-ReconfRqstFDD	INTEGER ::= 10294
id-DSCH-ID	INTEGER ::= 10395
id-DSCH-information-AddList-RL-ReconfPrepTDD	INTEGER ::= 10496
id-DSCH-Information-AddList-RL-ReconfRqstTDD	INTEGER ::= 10597
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD	INTEGER ::= 10698
id-DSCH-Information-DeleteList-RL-ReconfRqstTDD	INTEGER ::= 10799
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD	INTEGER ::= 10800
id-DSCH-Information-ModifyList-RL-ReconfRqstTDD	INTEGER ::= 10901
id-DSCH-InformationResponseListIE-RL-AdditionRspTDD	INTEGER ::= 11002
id-DSCH-InformationResplistIE-RL-SetupFailureFDD	INTEGER ::= 11103
id-DSCH-InformationResponseListIE-RL-SetupRspFDD	INTEGER ::= 11204
id-DSCH-InformationResponseListIE-RL-SetupRspTDD	INTEGER ::= 11305
id-DSCH-InformationList-RL-SetupRqstFDD	INTEGER ::= 11406
id-DSCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 11507
id-DSCH-ModifyItem-RL-ReconfPrepFDD	INTEGER ::= 11608
id-DSCH-ModifyItem-RL-ReconfRqstFDD	INTEGER ::= 11709
id-DSCH-ModifyListIE-RL-ReconfReady	INTEGER ::= 11810
id-DSCH-ModifyListIE-RL-ReconfRsp	INTEGER ::= 11911
id-DSCH-ModifyList-RL-ReconfPrepFDD	INTEGER ::= 12012
id-DSCH-ModifyList-RL-ReconfRqstFDD	INTEGER ::= 12113
id-DSCH-SetupListIE-RL-ReconfReady	INTEGER ::= 12214
id-DSCH-SetupListIE-RL-ReconfRsp	INTEGER ::= 12315
id-FACH-InformationItem-AuditRsp	INTEGER ::= 12416
id-FACH-InformationItem-ResourceStatusInd	INTEGER ::= 12517
id-FACHItem-CTCH-SetupRsp	INTEGER ::= 12618
id-FACH-ParametersList-CTCH-ReconfRqstFDD	INTEGER ::= 12719
id-FACH-ParametersList-CTCH-ReconfRqstTDD	INTEGER ::= 12820
id-FACH-ParametersListIE-CTCH-SetupRqstFDD	INTEGER ::= 12921
id-FACH-ParametersListIE-CTCH-SetupRqstTDD	INTEGER ::= 13022
id-IndicationType-ResourceStatusInd	INTEGER ::= 13123
id-Local-Cell-ID	INTEGER ::= 13224
id-Local-Cell-InformationItem-AuditRsp	INTEGER ::= 13325
id-Local-Cell-InformationItem-ResourceStatusInd	INTEGER ::= 13426
id-Local-Cell-InformationItem2-ResourceStatusInd	INTEGER ::= 13527
id-Local-Cell-InformationList-AuditRsp	INTEGER ::= 13628
id-MaxAdjustmentPeriod	INTEGER ::= 13729
id-MaxAdjustmentStep	INTEGER ::= 13830
id-MaximumTransmissionPower	INTEGER ::= 13931
id-MeasurementFilterCoefficient	INTEGER ::= 14032

id-MeasurementID	INTEGER ::= 14133
id-MIB-SIB-InformationList-SystemInfoUpdateRqst	INTEGER ::= 14234
id-NodeBInformation-AuditRep	INTEGER ::= 14335
id-No-DeletionItem-SystemInfoUpdate	INTEGER ::= 14436
id-No-FailureItem-ResourceStatusInd	INTEGER ::= 14537
id-Non-CombiningItem-RL-AdditionFailureFDD	INTEGER ::= 14638
id-Non-CombiningItem-RL-AdditionRspFDD	INTEGER ::= 14739
id-Non-CombiningItem-RL-AdditionRspTDD	INTEGER ::= 14840
id-NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD	INTEGER ::= 14941
id-NonCombiningOrIENotPrsentItem-RL-SetupRspFDD	INTEGER ::= 15042
id-NodeB-CommunicationContextID	INTEGER ::= 15143
id-P-CCPCH-InformationItem-AuditRsp	INTEGER ::= 15244
id-P-CCPCH-InformationItem-ResourceStatusInd	INTEGER ::= 15345
id-P-CPICH-InformationItem-AuditRsp	INTEGER ::= 15446
id-P-CPICH-InformationItem-ResourceStatusInd	INTEGER ::= 15547
id-P-SCH-InformationItem-AuditRsp	INTEGER ::= 15648
id-P-SCH-InformationItem-ResourceStatusInd	INTEGER ::= 15749
id-PCCPCH-Information-Cell-ReconfRqstTDD	INTEGER ::= 15850
id-PCCPCH-Information-Cell-SetupRqstTDD	INTEGER ::= 15951
id-PCH-InformationItem-ResourceStatusInd	INTEGER ::= 16052
id-PCHItem-CTCH-SetupRsp	INTEGER ::= 16153
id-PCH-Parameters-CTCH-ReconfRqstFDD	INTEGER ::= 16254
id-PCH-Parameters-CTCH-ReconfRqstTDD	INTEGER ::= 16355
id-PCH-ParametersItem-CTCH-SetupRqstFDD	INTEGER ::= 16456
id-PCH-ParametersItem-CTCH-SetupRqstTDD	INTEGER ::= 16557
id-PCH-InformationItem-AuditRsp	INTEGER ::= 16658
id-PICH-InformationItem-ResourceStatusInd	INTEGER ::= 16759
id-PD	INTEGER ::= 16860
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst	INTEGER ::= 16961
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst	INTEGER ::= 17062
id-PDSCHSets-AddList-PSCH-ReconfRqst	INTEGER ::= 17163
id-PDSCHSets-DeleteList-PSCH-ReconfRqst	INTEGER ::= 17264
id-PDSCHSets-ModifyList-PSCH-ReconfRqst	INTEGER ::= 17365
id-PICH-InformationItem-AuditRsp	INTEGER ::= 17466
id-PICH-Parameters-CTCH-ReconfRqstFDD	INTEGER ::= 17567
id-PICH-Parameters-CTCH-ReconfRqstTDD	INTEGER ::= 17668
id-PowerAdjustmentType	INTEGER ::= 17769
id-PRACH-InformationItem-AuditRsp	INTEGER ::= 17870
id-PRACH-InformationItem-ResourceStatusInd	INTEGER ::= 17971
id-PRACHItem-CTCH-SetupRqstFDD	INTEGER ::= 18072
id-PRACHItem-CTCH-SetupRqstTDD	INTEGER ::= 18173
id-PRACH-ParametersList-CTCH-ReconfRqstFDD	INTEGER ::= 18274
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD	INTEGER ::= 18375
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD	INTEGER ::= 18476
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD	INTEGER ::= 18577
id-PrimaryCPICH-Information-Cell-SetupRqstFDD	INTEGER ::= 18678
id-PrimarySCH-Information-Cell-ReconfRqstFDD	INTEGER ::= 18779
id-PrimarySCH-Information-Cell-SetupRqstFDD	INTEGER ::= 18880
id-PrimaryScramblingCode	INTEGER ::= 18981
id-ProcedureScopeType-DL-PC-Rqst	INTEGER ::= 19082
id-SCH-Information-Cell-ReconfRqstTDD	INTEGER ::= 19183

id-SCH-Information-Cell-SetupRqstTDD	INTEGER ::= 19284
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst	INTEGER ::= 19385
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst	INTEGER ::= 19486
id-PUSCHSets-AddList-PSCH-ReconfRqst	INTEGER ::= 19587
id-PUSCHSets-DeleteList-PSCH-ReconfRqst	INTEGER ::= 196188
id-PUSCHSets-ModifyList-PSCH-ReconfRqst	INTEGER ::= 197189
id-RACH-InformationItem-AuditRsp	INTEGER ::= 200190
id-RACH-InformationItem-ResourceStatusInd	INTEGER ::= 201191
id-RACHItem-CTCH-SetupRsp	INTEGER ::= 202192
id-RACHItem-CM-Rprt	INTEGER ::= 203193
id-RACHItem-CM-Rqst	INTEGER ::= 204194
id-RACHItem-CM-Rsp	INTEGER ::= 205195
id-RACH-ParametersItem-CTCH-SetupRqstFDD	INTEGER ::= 206196
id-RACH-ParameterItem-CTCH-SetupRqstTDD	INTEGER ::= 207197
id-ReportCharacteristics	INTEGER ::= 208198
id-Reporting-Object-RL-FailureInd	INTEGER ::= 209199
id-Reporting-Object-RL-RestoreInd	INTEGER ::= 210200
id-RL-ID	INTEGER ::= 211201
id-RL-InformationItem-DM-Rprt	INTEGER ::= 212202
id-RL-InformationItem-DM-Rqst	INTEGER ::= 213203
id-RL-InformationItem-DM-Rsp	INTEGER ::= 214204
id-RL-InformationItem-RL-AdditionRqstFDD	INTEGER ::= 215205
id-RL-informationItem-RL-DeletionRqst	INTEGER ::= 216206
id-RL-InformationItem-RL-FailureInd	INTEGER ::= 217207
id-RL-InformationItem-RL-ReconfPrepFDD	INTEGER ::= 218208
id-RL-InformationItem-RL-ReconfRqstFDD	INTEGER ::= 219209
id-RL-InformationItem-RL-RestoreInd	INTEGER ::= 220210
id-RL-InformationItem-RL-SetupRqstFDD	INTEGER ::= 221211
id-RL-InformationList-RL-AdditionRqstFDD	INTEGER ::= 222212
id-RL-informationList-RL-DeletionRqst	INTEGER ::= 223213
id-RL-InformationList-RL-ReconfPrepFDD	INTEGER ::= 224214
id-RL-InformationList-RL-ReconfRqstFDD	INTEGER ::= 225215
id-RL-InformationList-RL-SetupRqstFDD	INTEGER ::= 226216
id-RL-InformationResponseItem-RL-AdditionRspFDD	INTEGER ::= 227217
id-RL-InformationResponseItem-RL-ReconfReady	INTEGER ::= 228218
id-RL-InformationResponseItem-RL-ReconfRsp	INTEGER ::= 22919
id-RL-InformationResponseItem-RL-SetupRspFDD	INTEGER ::= 23020
id-RL-InformationResponseList-RL-AdditionRspFDD	INTEGER ::= 23121
id-RL-InformationResponseList-RL-ReconfReady	INTEGER ::= 23222
id-RL-InformationResponseList-RL-ReconfRsp	INTEGER ::= 23323
id-RL-InformationResponseList-RL-SetupRspFDD	INTEGER ::= 23424
id-RL-InformationResponse-RL-AdditionRspTDD	INTEGER ::= 23525
id-RL-InformationResponse-RL-SetupRspTDD	INTEGER ::= 23626
id-RL-Information-RL-AdditionRqstTDD	INTEGER ::= 23727
id-RL-Information-RL-ReconfRqstTDD	INTEGER ::= 23828
id-RL-Information-RL-ReconfPrepTDD	INTEGER ::= 23929
id-RL-Information-RL-SetupRqstTDD	INTEGER ::= 24030
id-RLItem-DM-Rprt	INTEGER ::= 24131
id-RLItem-DM-Rqst	INTEGER ::= 24232
id-RLItem-DM-Rsp	INTEGER ::= 24333
id-RLItem-RL-FailureInd	INTEGER ::= 24434

id-RLItem-RL-RestoreInd	INTEGER ::= 24535
id-RL-ReconfigurationFailureItem-RL-ReconfFailure	INTEGER ::= 24636
id-RL-ReconfigurationFailureList-RL-ReconfFailure	INTEGER ::= 24737
id-RL-Set-InformationItem-DM-Rprt	INTEGER ::= 24838
id-RL-SetItem-DM-Rqst	INTEGER ::= 24939
id-RL-Set-InformationItem-DM-Rsp	INTEGER ::= 25040
id-RL-Set-InformationItem-RL-FailureInd	INTEGER ::= 25141
id-RL-Set-InformationItem-RL-RestoreInd	INTEGER ::= 25242
id-RL-SetItem-DM-Rprt	INTEGER ::= 25343
id-RL-SetItem-DM-Rsp	INTEGER ::= 25444
id-RL-SetItem-RL-FailureInd	INTEGER ::= 25545
id-RL-SetItem-RL-RestoreInd	INTEGER ::= 25646
id-S-CCPCH-InformationItem-AuditRsp	INTEGER ::= 25747
id-S-CCPCH-InformationItem-ResourceStatusInd	INTEGER ::= 25848
id-S-CPICH-InformationItem-AuditRsp	INTEGER ::= 25949
id-S-CPICH-InformationItem-ResourceStatusInd	INTEGER ::= 26050
id-SCH-InformationItem-AuditRsp	INTEGER ::= 26151
id-SCH-InformationItem-ResourceStatusInd	INTEGER ::= 26252
id-S-SCH-InformationItem-AuditRsp	INTEGER ::= 26353
id-S-SCH-InformationItem-ResourceStatusInd	INTEGER ::= 26454
id-Secondary-CCPCHItem-CTCH-SetupRqstFDD	INTEGER ::= 26555
id-Secondary-CCPCHItem-CTCH-SetupRqstTDD	INTEGER ::= 26656
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD	INTEGER ::= 26757
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD	INTEGER ::= 26858
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD	INTEGER ::= 26959
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD	INTEGER ::= 27060
id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD	INTEGER ::= 27161
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD	INTEGER ::= 27262
id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD	INTEGER ::= 27363
id-SecondarySCH-Information-Cell-ReconfRqstFDD	INTEGER ::= 27464
id-SecondarySCH-Information-Cell-SetupRqstFDD	INTEGER ::= 27565
id-SegmentInformationListIE-SystemInfoUpdate	INTEGER ::= 27666
id-ServiceImpactingItem-ResourceStatusInd	INTEGER ::= 27767
id-SFN	INTEGER ::= 27868
id-ShutdownTimer	INTEGER ::= 27969
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD	INTEGER ::= 28070
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD	INTEGER ::= 28171
id-Successful-RL-InformationRespList-RL-AdditionFailureFDD	INTEGER ::= 28272
id-Successful-RL-InformationRespList-RL-SetupFailureFDD	INTEGER ::= 28373
id-SyncCase	INTEGER ::= 28474
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH	INTEGER ::= 28575
id-T-Cell	INTEGER ::= 28676
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD	INTEGER ::= 28777
id-TimeSlotConfigurationList-Cell-SetupRqstTDD	INTEGER ::= 28878
id-TransmissionDiversityApplied	INTEGER ::= 28979
id-UARFCNforNt	INTEGER ::= 29080
id-UARFCNforNd	INTEGER ::= 29181
id-UARFCNforNu	INTEGER ::= 29282
<u>id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD</u>	<u>INTEGER ::= 294</u>
<u>id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD</u>	<u>INTEGER ::= 296</u>
<u>id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD</u>	<u>INTEGER ::= 297</u>

id-UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD	INTEGER ::= 298
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD	INTEGER ::= xxx
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	INTEGER ::= xxx
id-UL-CCTrCH-InformationModifyList-RL-ReconfRgstTDD	INTEGER ::= xxx
id-UL-CCTrCH-InformationItem-RL-ReconfRgstTDD	INTEGER ::= 283
id-UL-CCTrCH-InformationItem-RL-SetupRgstTDD	INTEGER ::= 299284
id-UL-CCTrCH-InformationList-RL-AdditionRgstTDD	INTEGER ::= 300285
id-UL-CCTrCH-InformationList-RL-ReconfPrepTDD	INTEGER ::= 286
id-UL-CCTrCH-InformationList-RL-ReconfRgstTDD	INTEGER ::= 287
id-UL-CCTrCH-InformationList-RL-SetupRgstTDD	INTEGER ::= 301288
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD	INTEGER ::= 302
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	INTEGER ::= 303
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD	INTEGER ::= 304
id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD	INTEGER ::= 305
id-UL-DPCH-InformationDeleteListIE-RL-ReconfPrepTDD	INTEGER ::= 306
id-UL-DPCH-InformationItem-RL-AdditionRgstTDD	INTEGER ::= 307289
id-UL-DPCH-InformationList-RL-AdditionRgstTDD	INTEGER ::= 308290
id-UL-DPCH-InformationList-RL-SetupRgstTDD	INTEGER ::= 309291
id-UL-DPCH-InformationListIE-RL-ReconfPrepTDD	INTEGER ::= 292
id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD	INTEGER ::= 310
id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD	INTEGER ::= 311
id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD	INTEGER ::= 312
id-UL-DPCH-Information-RL-ReconfPrepFDD	INTEGER ::= 313293
id-UL-DPCH-Information-RL-ReconfRgstFDD	INTEGER ::= 314294
id-UL-DPCH-Information-RL-SetupRgstFDD	INTEGER ::= 315295
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD	INTEGER ::= 316296
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD	INTEGER ::= 317297
id-Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD	INTEGER ::= 318298
id-Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD	INTEGER ::= 319299
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD	INTEGER ::= 32000
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD	INTEGER ::= 32101
id-USCH-information-AddList-RL-ReconfPrepTDD	INTEGER ::= 32202
id-USCH-Information-AddList-RL-ReconfRgstTDD	INTEGER ::= 32303
id-USCH-Information-DeleteList-RL-ReconfPrepTDD	INTEGER ::= 32404
id-USCH-Information-DeleteList-RL-ReconfRgstTDD	INTEGER ::= 32505
id-USCH-Information-ModifyList-RL-ReconfPrepTDD	INTEGER ::= 32606
id-USCH-Information-ModifyList-RL-ReconfRgstTDD	INTEGER ::= 32707
id-USCH-InformationResponseListIE-RL-AdditionRspTDD	INTEGER ::= 32808
id-USCH-InformationResponseListIE-RL-SetupRspTDD	INTEGER ::= 32909
id-USCH-InformationList-RL-SetupRgstTDD	INTEGER ::= 33010
id-USCH-ModifyListIE-RL-ReconfReady	INTEGER ::= 33111
id-USCH-ModifyListIE-RL-ReconfRsp	INTEGER ::= 33212
id-USCH-SetupListIE-RL-ReconfReady	INTEGER ::= 33313
id-USCH-SetupListIE-RL-ReconfRsp	INTEGER ::= 33414

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 112r1

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:

22 May 2000

Subject:

Editorial correction for NBAP ASN.1

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:

There are some editorial mistakes in the current ASN.1. This CR provides the corrections of these mistakes. The details of corrections are described below.

9.3.3 PDU Definitions

1. RADIO LINK SETUP FAILURE FDD

- The presence for "NodeB Communication Context" IE is changed to mandatory in order to align with tabular.
- The presence for "Communication Control Port" IE is changed to optional in order to align with tabular.

2. RADIO LINK ADDITION RESPONSE FDD

- The maximum range for "DCH Information Response" IE is changed from "maxNrOfRLs" to "maxNrOfDCHs" in order to align with tabular.

3. RADIO LINK FAILURE INDICATION

- "Criticality Diagnostics" IE is removed in order to align with tabular.

4. PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST TDD

- "PDSCH-Information-AddList-PSCH-ReconfRqst" IE in the "PUSCHSets-AddItem-PSCH-ReconfRqst" IE is renamed to "PUSCH-Information-AddList-PSCH-ReconfRqst". This was the pure editorial mistake in the current version.

9.3.4 NBAP Information Elements

- The maximum range for "UL-Cost" is changed from 65536 to 65535. This was the pure editorial mistake in the current version.
- The maximum range for "IB-SG-POS" is changed from 2064 to 2046. This was the pure editorial mistake in the current version.

Clauses affected:

9.3.3, 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.

9.3.3 PDU Definitions

-- partly omitted --

```

-- *****
--
-- RADIO LINK SETUP FAILURE FDD
--
-- *****

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

RadioLinkSetupFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-CRNC-CommunicationContextID          CRITICALITY  ignore
      TYPE    CRNC-CommunicationContextID            PRESENCE
      mandatory }|
    { ID      id-NodeB-CommunicationContextID         CRITICALITY  ignore
      TYPE    NodeB-CommunicationContextID           PRESENCE
      mandatoryoptional }|
    { ID      id-CommunicationControlPortID          CRITICALITY  ignore
      TYPE    CommunicationControlPortID            PRESENCE
      optionalmandatory }|
    { ID      id-Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD CRITICALITY  ignore
      TYPE    Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD PRESENCE
      mandatory }|
    { ID      id-Successful-RL-InformationRespList-RL-SetupFailureFDD CRITICALITY  ignore
      TYPE    Successful-RL-InformationRespList-RL-SetupFailureFDD PRESENCE
      optional }
    }|
    { ID      id-CriticalityDiagnostics              CRITICALITY  ignore
      TYPE    CriticalityDiagnostics                PRESENCE
      optional }
    },
    ...
}

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

```

-- partly omitted --

```
-- *****
--
-- RADIO LINK ADDITION RESPONSE FDD
--
-- *****
```

-- partly omitted --

```
RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    rL-Set-ID                           RL-Set-ID,
    ul-InterferenceLevel                UL-InterferenceLevel,
    diversityIndication                 DiversityIndication-RL-AdditionRspFDD,
    sSDT-SupportIndicator               SSDT-SupportIndicator,
    iE-Extensions                       ProtocolExtensionContainer { { RL-
InformationResponseItem-RL-AdditionRspFDD-ExtIEs } } OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
    combining                           Combining-RL-AdditionRspFDD,
    non-combining                       Non-Combining-RL-AdditionRspFDD,
    ...
}

Combining-RL-AdditionRspFDD ::= ProtocolIE-Container {{ CombiningIE-RL-AdditionRspFDD }}

CombiningIE-RL-AdditionRspFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-AdditionRspFDD CRITICALITY ignore TYPE CombiningItem-RL-
AdditionRspFDD PRESENCE mandatory },
    ...
}

CombiningItem-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    iE-Extensions                       ProtocolExtensionContainer { { CombiningItem-RL-
AdditionRspFDD-ExtIEs } } OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Non-Combining-RL-AdditionRspFDD ::= ProtocolIE-Container {{ Non-CombiningIE-RL-AdditionRspFDD }}

Non-CombiningIE-RL-AdditionRspFDD NBAP-PROTOCOL-IES ::= {
    { ID id-Non-CombiningItem-RL-AdditionRspFDD CRITICALITY ignore TYPE Non-CombiningItem-RL-
AdditionRspFDD PRESENCE mandatory },
    ...
}

Non-CombiningItem-RL-AdditionRspFDD ::= SEQUENCE {
    dCH-InformationResponseList         DCH-InformationResponseList-RL-AdditionRspFDD,
    iE-Extensions                       ProtocolExtensionContainer { { Non-
CombiningItem-RL-AdditionRspFDD-ExtIEs } } OPTIONAL,
    ...
}

Non-CombiningItem-RL-AdditionRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-AdditionRspFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHRLs)) OF DCH-
InformationResponseItem-RL-AdditionRspFDD

DCH-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
    dCH-ID                               DCH-ID,
    bindingID                             BindingID,
    transportLayerAddress                 TransportLayerAddress,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-
InformationResponseItem-RL-AdditionRspFDD-ExtIEs } } OPTIONAL,
    ...
}
```



```

    ...
}
DCH-InformationResponseItem-RL-AdditionRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

-- partly omitted --

```

-- *****
--
-- RADIO LINK FAILURE INDICATION
--
-- *****

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

```

```

RadioLinkFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          CRITICALITY ignore          TYPE
    CRNC-CommunicationContextID PRESENCE mandatory } |
    { ID id-Reporting-Object-RL-FailureInd      CRITICALITY ignore          TYPE
    Reporting-Object-RL-FailureInd PRESENCE mandatory } }+
{ ID id-CriticalityDiagnostics CRITICALITY ignore          TYPE
CriticalityDiagnostics PRESENCE optional },
    ...
}

```

```

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

```

-- partly omitted --

```

-- *****
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST TDD
--
-- *****

```

-- partly omitted --

```

PUSCHSets-AddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-AddItem-
PSCH-ReconfRqst

PUSCHSets-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCHSet-ID          PUSCHSet-ID,
    pUSCH-InformationList PUSCH-Information-AddList-PSCH-ReconfRqst
    OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer {{PUSCHSets-AddItem-
PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PUSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

-- partly omitted --

9.3.4 NBAP Information Elements

-- partly omitted --

```

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

```

```
|         ul-Cost      INTEGER (0..655356)  
|     }
```

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

```
DedicatedChannelsCapacityConsumptionLaw ::= SEQUENCE ( SIZE(1..maxNrOfSF) ) OF  
SEQUENCE {  
|         dl-Cost      INTEGER (0..65535),  
|         ul-Cost      INTEGER (0..655356)  
|     }
```

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

```
| IB-SG-POS ::= INTEGER (0..204664)  
-- Only even positions alloweds
```

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 113

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:

22 May 2000

Subject:

(ASN.1) Error Indication and Private message for Common procedures

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:

"Error Indication message" is used for both Dedicated and Common procedures. But in the current ASN.1, this message is defined only for Dedicated procedure. This CR proposes to add "Error Indication message" for Common procedure. This concept is also applied for the "Private message".

Clauses affected:

9.3.2, 9.3.7

w

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.

9.3.2 PDU Description for NBAP

```
-- *****
--
-- Elementary Procedure definitions
--
-- *****
```

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

```
id-audit,
id-auditRequired,
id-blockResource,
id-cellDeletion,
id-cellReconfiguration,
id-cellSetup,
id-commonMeasurementFailure,
id-commonMeasurementInitiation,
id-commonMeasurementReport,
id-commonMeasurementTermination,
id-commonTransportChannelDelete,
id-commonTransportChannelReconfigure,
id-commonTransportChannelSetup,
id-compressedModeCancellation,
id-compressedModeCommit,
id-compressedModePreparation,
id-dedicatedMeasurementFailure,
id-dedicatedMeasurementInitiation,
id-dedicatedMeasurementReport,
id-dedicatedMeasurementTermination,
id-downlinkPowerControl,
id-errorIndicationForDedicated,
id-errorIndicationForCommon,
id-physicalSharedChannelReconfiguration,
id-privateMessageForDedicated,
id-privateMessageForCommon,
id-radioLinkAddition,
id-radioLinkDeletion,
id-radioLinkFailure,
id-radioLinkRestoration,
id-radioLinkSetup,
id-resourceStatusIndication,
id-synchronisedRadioLinkReconfigurationCancellation,
id-synchronisedRadioLinkReconfigurationCommit,
id-synchronisedRadioLinkReconfigurationPreparation,
id-systemInformationUpdate,
id-unblockResource,
id-unSynchronisedRadioLinkReconfiguration
FROM NBAP-Constants;
```

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

```
-- *****
--
-- Interface Elementary Procedure List
--
-- *****
```

```
NBAP-ELEMENTARY-PROCEDURES NBAP-ELEMENTARY-PROCEDURE ::= {
    NBAP-ELEMENTARY-PROCEDURES-CLASS-1      |
    NBAP-ELEMENTARY-PROCEDURES-CLASS-2      |
    ...                                       ,
}
```

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

```
NBAP-ELEMENTARY-PROCEDURES-CLASS-2 NBAP-ELEMENTARY-PROCEDURE ::= {
    resourceStatusIndication                |
    auditRequired                           |
    commonMeasurementReport                  |
    commonMeasurementTermination             |
    commonMeasurementFailure                 |
    synchronisedRadioLinkReconfigurationCommit |
    synchronisedRadioLinkReconfigurationCancellation |
    radioLinkFailure                         |
    radioLinkRestoration                     |
}
```

```

dedicatedMeasurementReport
dedicatedMeasurementTermination
dedicatedMeasurementFailure
downlinkPowerControlFDD
compressedModeCommit
compressedModeCancellation
unblockResource
errorIndicationForDedicated
errorIndicationForCommon
privateMessageForDedicated
privateMessageForCommon
...
}

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

-- partly omitted --

-- *** ErrorIndication for Dedicated procedures ***
errorIndicationForDedicated NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      ErrorIndication
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID             { procedureCode id-errorIndicationForDedicated, ddMode common }
  CRITICALITY              ignore
}

-- *** ErrorIndication for Common procedures ***
errorIndicationForCommon NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      ErrorIndication
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID             { procedureCode id-errorIndicationForCommon, ddMode common }
  CRITICALITY              ignore
}

-- *** PrivateMessage for Dedicated procedures ***
privateMessageForDedicated NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      PrivateMessage
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID             { procedureCode id-privateMessageForDedicated, ddMode common }
  CRITICALITY              ignore
}

-- *** PrivateMessage for Common procedures ***
privateMessageForCommon NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      PrivateMessage
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID             { procedureCode id-privateMessageForCommon, ddMode common }
  CRITICALITY              ignore
}

-- 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-errorIndicationForDedicated	-----INTEGER ::= 21
id-physicalSharedChannelReconfiguration	INTEGER ::= 37
id-privateMessageForDedicated	-----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
<u>id-errorIndicationForCommon</u>	<u>INTEGER ::= xx</u>
<u>id-privateMessageForCommon</u>	<u>INTEGER ::= xx</u>

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 118r1

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:

(at least one should be marked with an X)

(U)SIM ME UTRAN / Radio Core Network

Source:

R-WG3

Date:

May, 2000

Subject:

Introduction of Rx Timing Deviation measurement for TDD for locations services

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:

This documents provides the Rx Timing Deviation Measurement for TDD as a dedicated measurement on NBAP for location services.

Concerning to the Measurement Increase/Decrease Threshold setting the Rx Timing Deviation is not added. According definition of the report characteristics a measurement report is given only when the measured entity rises/falls more than the requested threshold within the requested time. I.e. in case of the measurement increase/decrease threshold setting the Rx Timing deviation or also the RTT measurement reflects the speed of the UE movement. In addition in TDD the Rx Timing Deviation for positioning is relatively to Timing Advance due to accuracy reasons, which means that mainly values between 0 and 15 will be reported. Thus, we do not see a sence in setting the increase/decrease threshold.

CR118r1:

Within the revised version the references have been updated indicating the reference number of the referred documents.

Clauses affected:

9.2.1.22, 9.2.1.23, 9.2.1.67, 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.

9.2.1.22 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, <u>Rx Timing Deviation</u> ,...)	RSCP, <u>Rx Timing Deviation</u> are <u>is</u> used by TDD 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
Dedicated measurement Value				
>SIR value	C <i>MeasValue</i>		INTEGER(0..63)	According to mapping in [4] / [5] 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 [4] / [5] 25.215/25.225
>RSCP	C <i>MeasValue</i>		INTEGER(0..81)	According to mapping in [5] 25.225
<u>>Rx Timing Deviation</u>	C <u><i>MeasValue</i></u>		<u>INTEGER(0..2047)</u>	<u>According to mapping in</u> [5] 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..63)	According to mapping in [4] / [5]25.215/25.225
Transmitted Carrier Power	<i>C – Threshold</i>		INTEGER(0..100)	According to mapping in [4] / [5]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 [5]25.225 (TDD only)
SIR	<i>C – Threshold</i>		INTEGER(0..63)	According to mapping in [4] / [5]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 [4] / [5]25.215/25.225
RSCP	<i>C – Threshold</i>		INTEGER(0..81)	According to mapping in [5]25.225 (TDD only)
<u>Rx Timing Deviation</u>	<u><i>C – Threshold</i></u>		<u>INTEGER(0..2047)</u>	<u>According to mapping in [5]25.225 (TDD only)</u>

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
--
--*****

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-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,
    ...
}

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,
  rx-timing-deviation,
  ...
}

DedicatedMeasurementValue ::= CHOICE {
  sir-Value          SIR-Value,
  sir-ErrorValue    SIR-Error-Value,
  transmittedCodePowerValue    Transmitted-Code-Power-Value,
  rSCP              RSCP-Value,
  rxTimingDeviationValue    Rx-Timing-Deviation-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
-- =====

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 ::= {
    ...
}

```

```

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,
    rx-timing-deviation        Rx-Timing-Deviation-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 [5]25-225

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

RSSI-Value ::= INTEGER(0..63)
| -- According to mapping in [4]/[5]25-215/25-225

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

| Rx-Timing-Deviation-Value ::= INTEGER (0..2047)

-- =====
-- S
-- =====
```

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 120

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:

(at least one should be marked with an X)

(U)SIM

ME

UTRAN / Radio

Core Network

Source:

R-WG3

Date:

May 2000

Subject:

Measurement periods and accuracy for TDD

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:

In RAN3#12 meeting a reference to 25.133 was introduced for clarification of measurement period and accuracy.

This CR includes a reference to 25.123 for the TDD related measurements. All updates compared to CR85r1 are highlighted in green.

Clauses affected:

2, 8.2.8, 8.3.8

Other specs affected:

Other 3G core specifications

Other GSM core specifications

MS test specifications

BSS test specifications

O&M specifications

→ List of CRs:

→ List of CRs:

→ List of CRs:

→ List of CRs:

→ List of CRs:

→ List of CRs:

Other comments:



help.doc

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

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 25.133: "Requirements for support of Radio Resource management \(FDD\)"](#)
- [17] [3G TS 25.123: "Requirements for support of Radio Resource management \(TDD\)"](#)

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

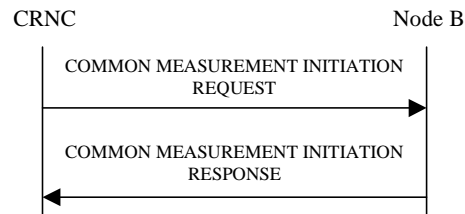


Figure 11: Common Measurement Initiation procedure: Successful Operation

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.]

Report characteristics

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.

Higher layer filtering

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows

F_n is the updated filtered measurement result

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

M_n is the latest received measurement result from physical layer measurements

a = one divided by 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.

The physical layer measurement results are sampled once every measurement period. For most measurements the measurement period and the accuracy are defined in 3G TS 25.433 [16] / [17]. For those measurements not covered in TS 25.433 [16] / [17], the following measurement period and accuracy are applicable:

Measurement	Accuracy	Measurement period
Acknowledged RA tries Value	± 0%	20ms

Response message

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

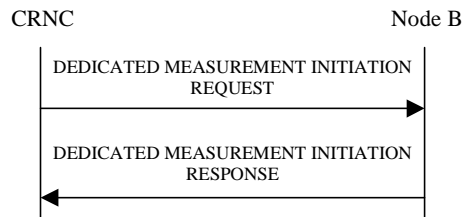


Figure 38: Dedicated Measurement Initiation procedure: Successful Operation

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.]

Report characteristics

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.

Higher layer filtering

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows

F_n is the updated filtered measurement result

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

M_n is the latest received measurement result from physical layer measurements

a = one divided by 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.

The physical layer measurement results are sampled once every measurement period. For most measurements the measurement period and the accuracy are defined in 3G TS 25.433 [16]/[17]. For those measurements not covered in 3G TS 25.433 [16]/[17], the following measurement period and accuracy are applicable:

Measurement	Accuracy	Measurement period
SIR error	Determined by accuracy of SIR value used for calculating the SIR error (see 3G TS 25.433 [16]/[17])	See SIR measurement in 3G TS 25.433 [16]/[17]

Response message

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.

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	CR125	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 <i>list expected approval meeting # here</i> ↑	for approval for information	<input checked="" type="checkbox"/> <input type="checkbox"/>	strategic <input type="checkbox"/> non-strategic <input type="checkbox"/> <i>(for SMG use only)</i>

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: Corrections of the AICH Transmission Timing IE

Work item:

Category:	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"/>	Release:	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 the *AICH Transmission Timing IE* is indicated as extensible in the ASN.1 but not in the Tabular Format. The use of different AICH Timing has been defined by WG1 to cope with very large cells. Please note that the information is broadcast to all UEs. This information needs to be understood by Release '99 UEs also in the future. This since the UE needs to know the exact position of the acknowledge received on an AICH (in relation to what was sent on the RACH). It is thus regarded as very unlikely that the AICH Timing will be extended in the future.

Further more, in the current NBAP specification there is a reference to the RRC Specification intended to clarify the *AICH Transmission Timing IE*. (Please note that the subchapter reference given by the NBAP Specification is not correct.) However, the only clarification that is given by the IE definition in the RRC specification is to look in the TS 25.211 for more information.

This CR proposes to **a)** remove the extensibility of the *AICH Transmission Timing IE* in the ASN.1 and **b)** to change the specification reference for the *AICH Transmission Timing IE* in the Tabular Format.

Clauses affected: 9.2.2.1, 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:	
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Other comments:

9.2.2.1 AICH Transmission Timing

IE/Group Name	Presence	Range	IE type and reference	Semantics description
AICH Transmission Timing			ENUMERATED (0, 1)	See parameter AICH Transmission Timing in ref. [7]. According to 25.334 chapter 10.2.6.17.

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
-- =====

.
.
.
<Editor's note: The rest of this ASN.1 module have been omitted.>

.
.
.
```

CHANGE REQUEST		<i>Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.</i>
25.433	CR	CR126
<small>GSM (AA.BB) or 3G (AA.BBB) specification number ↑</small>		<small>↑ CR number as allocated by MCC support team</small>
For submission to: TSG RAN #8	for approval <input checked="" type="checkbox"/>	Current Version: 3.1.0
<small>list expected approval meeting # here ↑</small>	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: Correction of the Message Type IE

Work item:

Category:	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"/>	Release:	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 the *Message Type IE* has a couple of errors. The values of two procedure codes are incorrect and the presence of the *Procedure Code IE* is missing. This CR corrects these errors.

Clauses affected: 9.2.1.41

Other specs affected:	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:

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

9.2.1.41 Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Message Type				
>Procedure ID		1		
>>Procedure Code	M		ENUMERATED (COMMON TRANSPORT CHANNEL SETUP, COMMON TRANSPORT CHANNEL RECONFIGURATION, COMMON TRANSPORT CHANNEL DELETION, BLOCK RESOURCE, UNBLOCK RESOURCE, AUDIT REQUIRED, AUDIT, COMMON MEASUREMENT INITIATION, COMMON MEASUREMENT REPORTING, COMMON MEASUREMENT TERMINATION, COMMON MEASUREMENT TERMINATION FAILURE, CELL SETUP, CELL RECONFIGURATION, CELL DELETION, RESOURCE STATUS INDICATION, SYSTEM INFORMATION UPDATE, RL SETUP, RL ADDITION, SYNCHRONISED RL RECONFIGURATION PREPARATION, SYNCHRONISED RL RECONFIGURATION COMMIT, SYNCHRONISED RL RECONFIGURATION CANCELLATION, UNSYNCHRONISED RL RECONFIGURATION, RL DELETION, DL POWER CONTROL, DEDICATED MEASUREMENT INITIATION, DEDICATED MEASUREMENT REPORTING, DEDICATED MEASUREMENT TERMINATION, DEDICATED MEASUREMENT TERMINATION FAILURE, RL FAILURE, RL RESTORATION, COMPRESSED MODE PREPARATION, COMPRESSED MODE COMMIT, COMPRESSED MODE CANCELLATION ERROR INDICATION, ...)	
>>Dmode	M		ENUMERATED (FDD, TDD, Common)	Common = common to FDD and TDD.
>Type of Message	M		ENUMERATED (Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

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 CR127

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ ↑ CR number as allocated by MCC support team

Current Version: **3.1.0**

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: Corrections of the RACH Slot Format IE

Work item:

Category:	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"/>	Release:	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 the *RACH Slot Format IE* is indicated as extensible in the ASN.1 but not in the Tabular Format. In the current layer 1 specifications it is technically possible to add new slot formats (if needed) in future releases. It cannot be excluded that this is needed in the future.

For the above reasons, this CR proposes to add the extensibility of the *RACH Slot Format IE* in the Tabular Format.

Clauses affected: 9.2.2.27

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:	
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Other comments:

9.2.2.27 RACH Slot Format

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RACH Slot Format			ENUMERATED(0..3..*)	See 25.211.

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 135

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: May 2000

Subject: Addition of new step size alternatives for FDD DL power adjustment.

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:

In order to align with L1 (25.214 CR 090) new step size values of 1.5 dB and 2 dB in addition to the existing 0.5 dB and 1 dB are defined for information Element FDD TPC DL step size. Similar CR is issued to RNSAP Specification.

Clauses affected: 9.2.2.11, 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:

9.2.2.11 FDD TPC DL step size

This parameter indicates step size for the DL power adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
FDD TPC Downlink step size			ENUMERATED (0.5, 1, 1.5, 2)	

```
-- =====  
-- 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,  
    step-size1-5,  
    step-size2,  
    ...  
}
```


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 CR139		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 <small>list expected approval meeting # here</small>	for approval for information	<input checked="" type="checkbox"/> <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: Clarification of Notations used in NBAP

Work item:

Category:	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 type="checkbox"/> D Editorial modification <input checked="" type="checkbox"/>	Release:	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 some notations being used. The notations are a) tagging of FDD and TDD specific parts and b) the notations used when referring to procedures, messages, IEs, and values of IEs. However, these notations have been developed based on a common understanding in RAN WG3 and are not clearly visible to people outside RAN WG3.

This CR proposes to introduce the notations used in NBAP in clause 4 (*General*) of NBAP (A new subclause denoted *Specification Notations*).

Clauses affected: 4

Other specs affected:	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: 25.413 CR102, 25.423 CR119 → List of CRs: → List of CRs: → List of CRs: → List of CRs:
------------------------------	---	--

Other comments:

4.x Specification Notations

For the purposes of the present document, the following notations apply:

<u>[FDD]</u>	<u>This tagging of a word indicates that the word preceding the tag "[FDD]" applies only to FDD. This tagging of a heading indicates that the heading preceding the tag "[FDD]" and the section following the heading applies only to FDD.</u>
<u>[TDD]</u>	<u>This tagging of a word indicates that the word preceding the tag "[TDD]" applies only to TDD. This tagging of a heading indicates that the heading preceding the tag "[TDD]" and the section following the heading applies only to TDD.</u>
<u>[FDD - ...]</u>	<u>This tagging indicates that the enclosed text following the "[FDD - " applies only to FDD. Multiple sequential paragraphs applying only to FDD are enclosed separately to enable insertion of TDD specific (or common) paragraphs between the FDD specific paragraphs.</u>
<u>[TDD - ...]</u>	<u>This tagging indicates that the enclosed text following the "[TDD - " applies only to TDD. Multiple sequential paragraphs applying only to TDD are enclosed separately to enable insertion of FDD specific (or common) paragraphs between the TDD specific paragraphs.</u>
<u>Procedure</u>	<u>When referring to an elementary procedure in the specification the Procedure Name is written with the first letters in each word in upper case characters followed by the word "procedure", e.g. Radio Link Setup procedure.</u>
<u>Message</u>	<u>When referring to a message in the specification the MESSAGE NAME is written with all letters in upper case characters followed by the word "message", e.g. RADIO LINK SETUP REQUEST message.</u>
<u>IE</u>	<u>When referring to an information element (IE) in the specification the <i>Information Element Name</i> is written with the first letters in each word in upper case characters and all letters in Italic font followed by the abbreviation "IE", e.g. <i>Transport Format Set IE</i>.</u>
<u>Value of an IE</u>	<u>When referring to the value of an information element (IE) in the specification the "Value" is written as it is specified in subclause 9.2 enclosed by quotation marks, e.g. "Abstract Syntax Error (Reject)" or "SSDT Active in the UE".</u>

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 CR140		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	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: Definition of Node B and CRNC Communication Contexts

Work item:

Category:	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"/>	Release:	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: This CR clarifies what is meant by Node B and CRNC Communication Contexts in NBAP.

Clauses affected: 3.1

Other specs affected:	Other 3G core specifications <input type="checkbox"/> → List of CRs: 25.423 CR120 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.

CRNC Communication Context: The CRNC Communication Context contains the necessary information for the CRNC for communication with a specific UE. The CRNC Communication Context is identified by the CRNC Communication Context ID.

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.

Node B Communication Context: The Node B Communication Context contains the necessary information for the Node B for communication with a specific UE. The Node B Communication Context is created by the Radio Link Setup procedure and deleted by the Radio Link Deletion procedure when deleting the last Radio Link within the Node B Communication Context. The Node B Communication Context is identified by the Node B Communication Context ID.

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.

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	CR141r1
GSM (AA.BB) or 3G (AA.BBB) specification number ↑		↑ CR number as allocated by MCC support team
For submission to: TSG RAN #8 <i>list expected approval meeting # here</i> ↑	for approval for information	Current Version: 3.1.0
	<input checked="" type="checkbox"/>	strategic <input type="checkbox"/> non-strategic <input type="checkbox"/> <i>(for SMG use only)</i>

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:** April 2000

Subject: Handling of mismatch between Measurement Type and Measurement Object

Work item:

Category:	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"/>	Release:	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: CR141r1: References to 25.225 [5] has been corrected.

CR141:
Currently it is a bit unclear what the result would be if the CRNC request a Measurement Type on a Measurement Object for which the measurement is not defined. If for instance the SIR is requested to be measured on a Radio Link it is clear from the definition of the Measurement Type (in 25.215) that the measurement cannot be performed. However, if the DL Tx Code Power measurement is requested for a Radio Link Set it is not so clear whether or not this measurement can be performed.

This CR clarifies that the measurements shall only be performed for the Measurement Objects as defined in either 25.215 for FDD or 25.225 for TDD.

This CR also clarifies the references to the Dedicated Measurement Object Type IE, i.e. the word "Type" is missing.

Clauses affected: 8.2.8, 8.3.8

Other specs affected:	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: TS 25.423 CR122 → List of CRs: → List of CRs: → List of CRs: → List of CRs:
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Other comments:

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

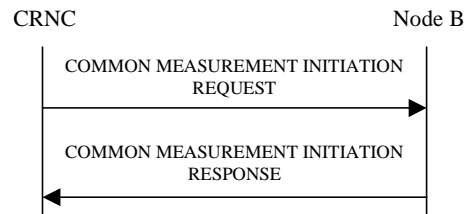


Figure 11: Common Measurement Initiation procedure: Successful Operation

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 = one divided by 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.

8.2.8.3 Unsuccessful Operation

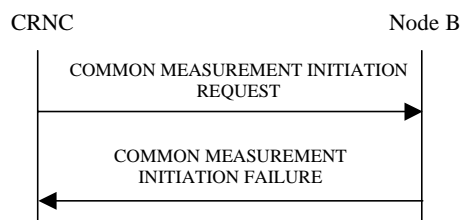


Figure 12: Common Measurement Initiation procedure: Unsuccessful Operation

If the Common Measurement Type received in the *Common Measurement Type* IE is not defined in ref. [4] or [5] to be measured on the Common Measurement Object Type received in the *Common Measurement Object Type* IE in the COMMON MEASUREMENT INITIATION REQUEST message the Node B shall regard the Common Measurement Initiation procedure as failed. For measurements not defined in ref. [4] or [5] the Node B shall regard the measurement as failed unless the *Common Measurement Object Type* IE has the following value(s):

Common Measurement Type	Common Measurement Object Type
Acknowledged RA tries Value	"RACH"

If the requested measurement cannot be initiated, the Node B shall send a COMMON MEASUREMENT INITIATION FAILURE message sent over the Node B control port. The message shall include the same Measurement Id that was

used in the COMMON MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Measurement not supported for the object.

8.2.8.4 Abnormal Conditions

-

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

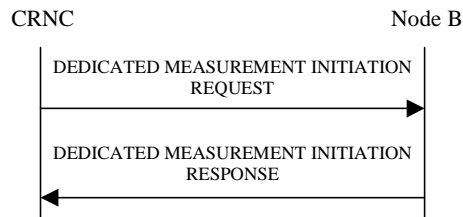


Figure 38: Dedicated Measurement Initiation procedure: Successful Operation

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 Type* 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 Type* 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 Type* 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 Type* 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 = one divided by 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.

8.3.8.3 Unsuccessful Operation

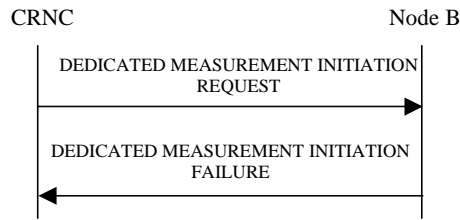


Figure 39: Dedicated Measurement Request procedure: Unsuccessful Operation

If the Dedicated Measurement Type received in the *Dedicated Measurement Type IE* is not defined in ref. [4] or [5] to be measured on the Dedicated Measurement Object Type received in the *Dedicated Measurement Object Type IE* in the DEDICATED MEASUREMENT INITIATION REQUEST message the Node B shall regard the Dedicated Measurement Initiation procedure as failed. For measurements not defined in ref. [4] or [5] the Node B shall regard the measurement as failed unless the *Dedicated Measurement Object Type IE* has the following value(s):

Dedicated Measurement Type	Dedicated Measurement Object Type
SIR Error	"RLS" [FDD] or "RL" [TDD]

If the requested measurement cannot be initiated, the Node B shall send a DEDICATED MEASUREMENT INITIATION FAILURE 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 DEDICATED MEASUREMENT INITIATION REQUEST message and the *Cause IE* set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer cause

- Measurement not supported for the object

Miscellaneous Cause

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

8.3.8.4 Abnormal Conditions

-

CHANGE REQUEST			
25.433	CR CR142	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 <i>list expected approval meeting # here</i>	for approval for information	<input checked="" type="checkbox"/>	strategic <input type="checkbox"/> non-strategic <input type="checkbox"/> <i>(for SMG use only)</i>

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 the usage of the Common Measurement Object Type IE

Work item:

Category:	F Correction <input type="checkbox"/>	Release:	Phase 2 <input type="checkbox"/>
	A Corresponds to a correction in an earlier release <input type="checkbox"/>		Release 96 <input type="checkbox"/>
<i>(only one category shall be marked with an X)</i>	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 checked="" type="checkbox"/>		Release 99 <input checked="" type="checkbox"/>
			Release 00 <input type="checkbox"/>

Reason for change: In the current NBAP specification the Dedicated Measurement Object Type and the Common Measurement Object Type are used as a choice in messages where the IE is not present. In the case of the Dedicated Measurement Object Type there is semantics clarifying the usage. However, in the case of the Common Measurement Object Type there is no semantics clarifying the usage.

This CR clarifies the usage of the Common Measurement Object Type IE in chapter 9.1 by adding semantics to the tabular format of messages related to common measurement reporting.

Clauses affected: 9.1.18, 9.1.20

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:

9.1.18 COMMON MEASUREMENT INITIATION RESPONSE

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				-	
Measurement Id	M				YES	ignore
CHOICE Common Measurement Object Type				Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>"Cell"					YES	ignore
>>Common Measurement value	M				-	
>"RACH"					YES	ignore
>>Common Measurement Value	M				-	
SFN	O			Common Measurement Time Reference	YES	ignore
Criticality Diagnostics	O				YES	ignore

9.1.20 COMMON MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
CHOICE Common Measurement Object Type				Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>"Cell"					YES	ignore
>>Common Measurement value	M				–	
>"RACH"					YES	ignore
>>Common Measurement Value	M				–	
SFN	O			Common Measurement Time Reference	YES	ignore

<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.
25.433	CR	150r1
GSM (AA.BB) or 3G (AA.BBB) specification number ↑		↑ CR number as allocated by MCC support team
For submission to: TSG RAN #8 <small>list expected approval meeting # here ↑</small>		Current Version: 3.1.0
for approval for information <input checked="" 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:** May 2000

Subject: Correction of CR Implementation on v3.0.0

Work item:

Category:	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"/>	Release:	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 contains the following corrected implementations:

- Chapter 3.2: If no text is included as default the word Void should be written.
- Chapter 9.2.2.44: CR14 was not fully implemented. It still contains Eb/N0.
- Chapter 8.2.7.2: CR19, the last sentence in the chapter should be deleted.
- Chapter 10.3.1: CR730, the CR was not written clear and therefore the CR was not correctly implemented.
- Chapter 9.2.1.41: CR42 was not fully implemented.
- Chapter 8.3.12.2: CR33r1 and CR32r2 changed the same sentence, therefore the CR was not correctly implemented.
- Chapter 9.3.3: CR33r1 was not fully implemented.**
- Chapter 9.3.7: CR33r1 was not fully implemented.

Clauses affected: 3.2, 9.2.2.44, 8.2.7.2, 10.3.1, 9.2.1.41, 8.3.12.2, 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:	
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Other:

comments:



help.doc

<----- [double-click here for help and instructions on how to create a CR.](#)

3.2 Symbols

~~Void. No special symbols are defined in this document.~~

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ASN.1	Abstract Syntax Notation One
ATM	Asynchronous Transfer Mode
BCCCH	Broadcast Control Channel
CCPCH	Common Control Physical Channel
CFN	Connection Frame Number
CRNC	Controlling Radio Network Controller
DCH	Dedicated Channel
DL	Downlink
DPCCCH	Dedicated Physical Control Channel
DPCH	Dedicated Physical Channel
DPDCH	Dedicated Physical Data Channel
DSCH	Downlink Shared Channel
FDD	Frequency Division Duplex
FP	Frame Protocol
L1	Layer 1
L2	Layer 2
NBAP	Node B Application Part
O&M	Operation and Management
PDSCH	Physical Downlink Shared Channel
PUSCH	Physical Uplink Shared Channel
RL	Radio Link
RLS	Radio Link Set
RNC	Radio Network Controller
RRC	Radio Resource Control
SRNC	Serving Radio Network Controller
TDD	Time Division Duplex
TFC	Transport Format Combination
TFCI	Transport Format Combination Indicator
TFCS	Transport Format Combination Set
TFS	Transport Format Set
TPC	Transmit Power Control
UE	User Equipment
UL	Uplink
USCH	Uplink Shared Channel
UTRAN	UMTS Terrestrial Radio Access Network

8.2.7.2 Successful Operation

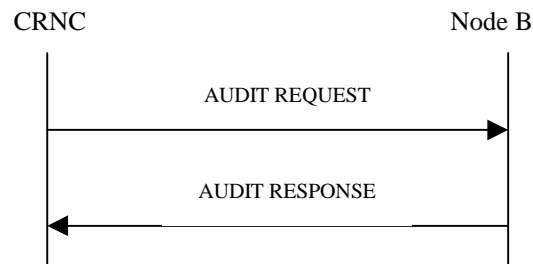


Figure 10: Audit procedure, Successful Operation

The procedure is initiated with an AUDIT REQUEST message sent from the CRNC to the Node B.

If a *Configuration Generation ID* IE for a cell can not be trusted, the Node B shall set this *Configuration Generation ID* IE = '0'.

The Node B shall include in the AUDIT RESPONSE message a *Local Cell Information* IE group for each local cell present in the Node B. The Node B shall include the *Maximum DL Power Capability* IE if the value is known by the Node B.

The Node B shall include the Node B internal resource capability and consumption laws with the "NodeB Information IE group". If the "UL Capacity Credit" IE is not present, then the internal resource capabilities of the Node B are modelled as shared resources between Uplink and Downlink.

The Node B shall include for each local cell present in the node B the Node B internal resource capability and consumption laws within the "Local Cell Information IE group". If the "UL Capacity Credit" IE is not present, then the internal resource capabilities of the local cell are modelled as shared resources between Uplink and Downlink.

The Node B shall include in the AUDIT RESPONSE message a *Cell Information* IE group for each cell in the Node B and information about all common transport channels and all common physical channels for each cell. Node B shall also include in the AUDIT RESPONSE message, a *Communication Control Port Information* IE group for each communication control port in the Node B.

~~For each missing cell, a configuration error has occurred and recovery actions should be taken by the CRNC.~~

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 TS25.224].

~~[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

-

9.2.1.41 Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Message Type				
>Procedure ID	<u>M</u>	1		
>>Procedure Code			ENUMERATED (COMMON TRANSPORT CHANNEL SETUP, COMMON TRANSPORT CHANNEL RECONFIGURATION, COMMON TRANSPORT CHANNEL DELETION, BLOCK RESOURCE, UNBLOCK RESOURCE, AUDIT REQUIRED, AUDIT, COMMON MEASUREMENT INITIATION, COMMON MEASUREMENT REPORTING, COMMON MEASUREMENT TERMINATION, COMMON MEASUREMENT TERMINATION FAILURE, CELL SETUP, CELL RECONFIGURATION, CELL DELETION, RESOURCE STATUS INDICATION, SYSTEM INFORMATION UPDATE, RL SETUP, RL ADDITION, SYNCHRONISED RL RECONFIGURATION PREPARATION, SYNCHRONISED RL RECONFIGURATION COMMIT, SYNCHRONISED RL RECONFIGURATION CANCELLATION, UNSYNCHRONISED RL RECONFIGURATION, RL DELETION, DL POWER CONTROL, DEDICATED MEASUREMENT INITIATION, DEDICATED MEASUREMENT REPORTING, DEDICATED MEASUREMENT TERMINATION, DEDICATED MEASUREMENT TERMINATION FAILURE, RL FAILURE, RL RESTORATION, COMPRESSED MODE PREPARATION, COMPRESSED MODE COMMIT, COMPRESSED MODE CANCELLATION ERROR INDICATION, ...)	
>>Dmode	M		ENUMERATED (FDD, TDD, Common)	Common = common to FDD and TDD.
>Type of Message	M		ENUMERATED (Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.2.44 UL delta SIR

The delta in uplink ~~SIR_{EB/N_o}~~ that shall be added to the SIR target used during compressed mode frames.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Uplink Delta SIR			Enumerated (-6..+10dB)	Step 0.1 dB.

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,
    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-Rqst,
id-AllRLItem-Set-DM-Rqst,
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-S-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,

```

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

```

-- *****
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
-- *****

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

DedicatedMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-NodeB-CommunicationContextID      CRITICALITY    reject      TYPE
NodeB-CommunicationContextID                      PRESENCE        mandatory    } |
    { ID      id-MeasurementID                      CRITICALITY    reject      TYPE
MeasurementID                                      PRESENCE        mandatory    } |
{ ID      id-DedicatedMeasurementObjectType     CRITICALITY    reject      TYPE
DedicatedMeasurementObjectType                   PRESENCE        mandatory    } |
    { ID      id-DedicatedMeasurementObjectType-DM-Rqst CRITICALITY    ignore     TYPE
DedicatedMeasurementObjectType-DM-Rqst          PRESENCE        mandatory    } |
    { ID      id-DedicatedMeasurementType          CRITICALITY    reject     TYPE
DedicatedMeasurementType                        PRESENCE        mandatory    } |
    { ID      id-MeasurementFilterCoefficient      CRITICALITY    reject     TYPE
MeasurementFilterCoefficient                    PRESENCE        optional     } |
    { ID      id-ReportCharacteristics              CRITICALITY    reject     TYPE
ReportCharacteristics                          PRESENCE        mandatory    } ,
    ...
}

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

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
    rL          RL-DM-Rqst,
    rLS         RL-Set-DM-Rqst,
all-RL       AllRL-DM-Rqst,
all-RLS     AllRL-Set-DM-Rqst,
    ...
}

RL-DM-Rqst ::= ProtocolIE-Container {{ RLIE-DM-Rqst }}

RLIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
    { ID id-RLItem-DM-Rqst CRITICALITY reject TYPE RLItem-DM-Rqst PRESENCE mandatory },
    ...
}

```

```

RLItem-DM-Rqst ::= SEQUENCE {
    rL-InformationList          RL-InformationList-DM-Rqst,
    iE-Extensions              ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs } }
    OPTIONAL,
    ...
}

RLItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-
InformationItemIE-DM-Rqst }}

RL-InformationItemIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rqst    CRITICALITY reject TYPE RL-InformationItem-DM-Rqst
    PRESENCE mandatory },
    ...
}

RL-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-ID                      RL-ID,
    dPCH-ID                    DPCH-ID          OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { RL-InformationItem-DM-Rqst-
ExtIEs } }          OPTIONAL,
    ...
}

RL-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rqst ::= ProtocolIE-Container {{ RL-SetIE-DM-Rqst }}

RL-SetIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
    { ID id-RL-SetItem-DM-Rqst    CRITICALITY reject TYPE RL-SetItem-DM-Rqst    PRESENCE mandatory
    },
    ...
}

RL-SetItem-DM-Rqst ::= SEQUENCE {
    rL-Set-InformationList-DM-Rqst          RL-Set-InformationList-DM-Rqst,
    iE-Extensions                          ProtocolExtensionContainer { { RL-SetItem-DM-Rqst-ExtIEs
    } }          OPTIONAL,
    ...
}

RL-SetItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rqst          ::= SEQUENCE (SIZE(1..maxNrOfRLSets)) OF RL-Set-
InformationItem-DM-Rqst

RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
    rL-Set-ID                      RL-Set-ID,
    iE-Extensions                  ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rqst-
ExtIEs } }          OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-DM-Rqst ::= ProtocolIE-Container {{ AllRLIE-DM-Rqst }}

AllRLIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
    { ID id-AllRLItem-DM-Rqst    CRITICALITY ignore TYPE AllRLItem-DM-Rqst    PRESENCE mandatory
    },
    ...
}

AllRLItem-DM-Rqst ::= NULL

AllRL-Set-DM-Rqst ::= ProtocolIE-Container {{ AllRLIE-Set-DM-Rqst }}

```

```

AllRLIE-Set-DM-Rqst NBAP-PROTOCOL-IES ::= {
  { ID id-AllRLItem-Set-DM-Rqst CRITICALITY ignore TYPE AllRLItem-Set-DM-Rqst PRESENCE
  mandatory },
  ...
}

AllRLItem-Set-DM-Rqst ::= NULL

-- *****
--
-- DEDICATED MEASUREMENT INITIATION RESPONSE
--
-- *****

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

DedicatedMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID CRITICALITY ignore TYPE
  CRNC-CommunicationContextID PRESENCE mandatory } |
  { ID id-MeasurementID PRESENCE mandatory } |
  { ID id-DedicatedMeasurementObjectType-DM-Rsp CRITICALITY ignore TYPE
  DedicatedMeasurementObjectType-DM-Rsp PRESENCE mandatory } |
  { ID id-CFN PRESENCE optional } |
  { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE
  CriticalityDiagnostics PRESENCE optional },
  ...
}

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

DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
  rL RL-DM-Rsp,
  rLS RL-Set-DM-Rsp,
  all-RL AllRL-DM-Rsp,
  all-RLS AllRL-Set-DM-Rsp,
  ...
}

RL-DM-Rsp ::= ProtocolIE-Container {{ RLIE-DM-Rsp }}

RLIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
  { ID id-RLItem-DM-Rsp CRITICALITY ignore TYPE RLItem-DM-Rsp PRESENCE mandatory },
  ...
}

RLItem-DM-Rsp ::= SEQUENCE {
  rL-InformationList-DM-Rsp RL-InformationList-DM-Rsp,
  iE-Extensions ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs } }
  OPTIONAL,
  ...
}

RLItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

AllRL-DM-Rsp ::= ProtocolIE-Container {{ AllRLIE-DM-Rsp }}

AllRLIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
  { ID id-AllRLItem-DM-Rsp CRITICALITY ignore TYPE AllRLItem-DM-Rsp PRESENCE mandatory
  },
  ...
}

AllRLItem-DM-Rsp ::= SEQUENCE {
  rL-InformationList-DM-Rsp RL-InformationList-DM-Rsp,
  iE-Extensions ProtocolExtensionContainer { { AllRLItem-DM-Rsp-ExtIEs } }
  OPTIONAL,

```

```

}
}
AllRLItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-
InformationItemIE-DM-Rsp }}

RL-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp    CRITICALITY ignore    TYPE RL-InformationItem-DM-Rsp
    PRESENCE mandatory },
    ...
}

RL-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-ID                                RL-ID,
    dPCH-ID                              DPCH-ID                OPTIONAL,
    dedicatedMeasurementValue            DedicatedMeasurementValue,
    iE-Extensions                        ProtocolExtensionContainer { { RL-InformationItem-DM-Rsp-
ExtIEs } }                OPTIONAL,
    ...
}

RL-InformationItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rsp ::= ProtocolIE-Container {{ RL-SetIE-DM-Rsp }}

RL-SetIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-RL-SetItem-DM-Rsp    CRITICALITY ignore    TYPE RL-SetItem-DM-Rsp    PRESENCE mandatory
},
    ...
}

RL-SetItem-DM-Rsp ::= SEQUENCE {
    rL-Set-InformationList-DM-Rsp        RL-Set-InformationList-DM-Rsp,
    iE-Extensions                        ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs } }
    OPTIONAL,
    ...
}

RL-SetItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-Set-DM-Rsp ::= ProtocolIE-Container {{ AllRLIE-Set-DM-Rsp }}

AllRLIE-Set-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-AllRLItem-Set-DM-Rsp    CRITICALITY ignore    TYPE AllRLItem-Set-DM-Rsp    PRESENCE
    mandatory },
    ...
}

AllRLItem-Set-DM-Rsp ::= SEQUENCE {
    rL-Set-InformationList-DM-Rsp    RL-Set-InformationList-DM-Rsp,
    iE-Extensions                    ProtocolExtensionContainer { { AllRLItem-Set-DM-Rsp-ExtIEs }
    } OPTIONAL,
    ...
}

AllRLItem-Set-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Container {{ RL-
Set-InformationItemIE-DM-Rsp }}

RL-Set-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rsp    CRITICALITY ignore    TYPE    RL-Set-
InformationItem-DM-Rsp    PRESENCE mandatory },
    ...
}

RL-Set-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-Set-ID                            RL-Set-ID,

```

```

        dedicatedMeasurementValue    DedicatedMeasurementValue,
        iE-Extensions                 ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rsp-
ExtIes} } OPTIONAL,
        ...
    }

```

```

RL-Set-InformationItem-DM-Rsp-ExtIes NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

-- partly omitted --

```

```

-- *****
--
-- DEDICATED MEASUREMENT REPORT
--
-- *****

```

```

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

```

```

DedicatedMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          PRESENCE    CRITICALITY    ignore    TYPE
CRNC-CommunicationContextID                    } |
    { ID id-MeasurementID                        PRESENCE    CRITICALITY    ignore    TYPE
MeasurementID                                  } |
    { ID id-DedicatedMeasurementObjectType-DM-Rprt PRESENCE    CRITICALITY    ignore    TYPE
DedicatedMeasurementObjectType-DM-Rprt        } |
    { ID id-CFN                                  PRESENCE    CRITICALITY    ignore    TYPE
CFN                                             } |
    ...
}

```

```

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

```

```

DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
    rL                RL-DM-Rprt,
    rLS               RL-Set-DM-Rprt,
    all-RL            RL-DM-Rprt,
    all-RLS           RL-Set-DM-Rprt,
    ...
}

```

```

RL-DM-Rprt ::= ProtocolIE-Container {{ RLIE-DM-Rprt }}

```

```

RLIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id-RLItem-DM-Rprt    CRITICALITY ignore    TYPE RLItem-DM-Rprt    PRESENCE mandatory },
    ...
}

```

```

RLItem-DM-Rprt ::= SEQUENCE {
    rL-InformationList-DM-Rprt    RL-InformationList-DM-Rprt,
    iE-Extensions                 ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIes } }
    OPTIONAL,
    ...
}

```

```

RLItem-DM-Rprt-ExtIes NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

AllRL-DM-Rprt ::= ProtocolIE-Container {{ AllRLIE-DM-Rprt }}

```

```

AllRLIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id AllRLItem-DM-Rprt    CRITICALITY ignore    TYPE AllRLItem-DM-Rprt    PRESENCE
mandatory },
    ...
}


```

```

AllRLItem-DM-Rprt ::= SEQUENCE {
    rL-InformationList-DM-Rprt    RL-InformationList-DM-Rprt,
    iE-Extensions                 ProtocolExtensionContainer { { AllRLItem-DM-Rprt-ExtIes } }
    OPTIONAL,
}


```



```

}
}
AllRLItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-
InformationItemIE-DM-Rprt }}

RL-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rprt    CRITICALITY ignore TYPE RL-InformationItem-DM-Rprt
    PRESENCE mandatory },
    ...
}

RL-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-ID                                RL-ID,
    dPCH-ID                              DPCH-ID    OPTIONAL,
    dedicatedMeasurementValue            DedicatedMeasurementValue,
    iE-Extensions                        ProtocolExtensionContainer { { RL-InformationItem-DM-Rprt-ExtIEs
} }    OPTIONAL,
    ...
}

RL-InformationItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-DM-Rprt ::= ProtocolIE-Container {{ RL-SetIE-DM-Rprt }}

RL-SetIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id-RL-SetItem-DM-Rprt    CRITICALITY ignore    TYPE RL-SetItem-DM-Rprt    PRESENCE
mandatory },
    ...
}

RL-SetItem-DM-Rprt ::= SEQUENCE {
    rL-Set-InformationList-DM-Rprt        RL-Set-InformationList-DM-Rprt,
    iE-Extensions                        ProtocolExtensionContainer { { RL-SetItem-DM-Rprt-ExtIEs } }
    OPTIONAL,
    ...
}

RL-SetItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-Set-DM-Rprt ::= ProtocolIE-Container {{ AllRLIE-Set-DM-Rprt }}

AllRLIE-Set-DM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id-AllRLItem-Set-DM-Rprt    CRITICALITY ignore TYPE AllRLItem-Set-DM-Rprt    PRESENCE
mandatory },
    ...
}

AllRLItem-Set-DM-Rprt ::= SEQUENCE {
    rL-Set-InformationList-DM-Rprt    RL-Set-InformationList-DM-Rprt,
    iE-Extensions                    ProtocolExtensionContainer { { AllRLItem-Set-DM-Rprt-ExtIEs
} }    OPTIONAL,
    ...
}

AllRLItem-Set-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Set-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Container {{ RL-
Set-InformationItemIE-DM-Rprt }}

RL-Set-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id-RL-Set-InformationItem-DM-Rprt    CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rprt
    PRESENCE mandatory },
    ...
}

RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
    rL-Set-ID                            RL-Set-ID,

```

```

        dedicatedMeasurementValue      DedicatedMeasurementValue,
        iE-Extensions                   ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rprt-
ExtIEs} } OPTIONAL,
        ...
    }

RL-Set-InformationItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- partly omitted --

```

9.3.4 NBAP Information Elements

```

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

-- partly omitted --

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

-- 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 ::= 10maxNrOfRLs
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
maxNrOfTFICIGroups                     INTEGER ::= 10
maxNrOfTFICI1Combs                     INTEGER ::= 10
maxNrOfTFICI2Combs                     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-InformationList-IE-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-InformationResponseList-IE-RL-AdditionRspTDD	INTEGER ::= 102
id-DSCH-InformationRespList-IE-RL-SetupFailureFDD	INTEGER ::= 103
id-DSCH-InformationResponseList-IE-RL-SetupRspFDD	INTEGER ::= 104
id-DSCH-InformationResponseList-IE-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-ModifyList-IE-RL-ReconfReady	INTEGER ::= 110
id-DSCH-ModifyList-IE-RL-ReconfRsp	INTEGER ::= 111
id-DSCH-ModifyList-RL-ReconfPrepFDD	INTEGER ::= 112
id-DSCH-ModifyList-RL-ReconfRqstFDD	INTEGER ::= 113
id-DSCH-SetupList-IE-RL-ReconfReady	INTEGER ::= 114
id-DSCH-SetupList-IE-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-ParametersList-IE-CTCH-SetupRqstFDD	INTEGER ::= 121
id-FACH-ParametersList-IE-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
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
<u>id-AllRLItem-DM-Rqst</u>	<u>INTEGER ::= xxx</u>
<u>id-AllRLItem-Set-DM-Rqst</u>	<u>INTEGER ::= xxx</u>

END

10 Handling of unknown, unforeseen and erroneous protocol data

10.1 General

Protocol Error cases can be divided into three classes:

- Transfer Syntax Error
- Abstract Syntax Error
- Logical Error

Protocol errors can occur in the following functions within a receiving node:

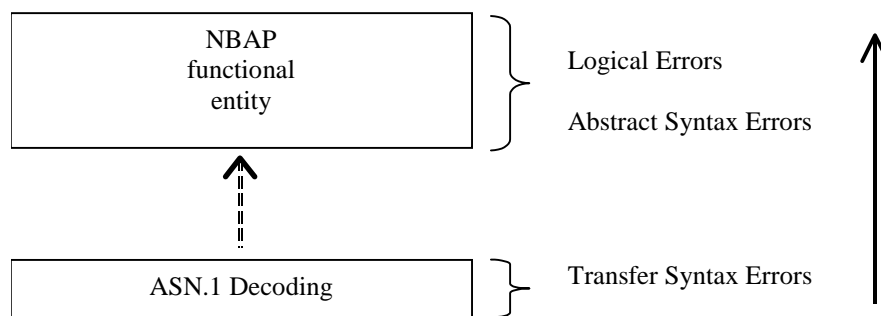


Figure 38: Protocol Errors in NBAP.

10.2 Transfer Syntax Error

A Transfer Syntax Error occurs when the receiver is not able to decode the received physical message. Transfer syntax errors are always detected in the process of ASN.1 decoding. If a Transfer Syntax Error occurs, the receiver should initiate Error Indication procedure with appropriate cause value for the Transfer Syntax protocol error.

Examples for Transfer Syntax Errors are:

- Violation of value ranges in ASN.1 definition of messages. e.g.: If an IE has a defined value range of 0 to 10 (ASN.1: INTEGER (0..10)), and 12 will be received, then this will be treated as a transfer syntax error.
- Violation in list element constraints. e.g.: If a list is defined as containing 1 to 10 elements, and 12 elements will be received, then this case will be handled as a transfer syntax error.
- Missing mandatory elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).
- Wrong order of elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).

10.3 Abstract Syntax Error

~~An Abstract Syntax Error occurs when the receiving functional NBAP entity receives IEs or IE groups that cannot be understood. The abstract syntax error also appears 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)~~

10.3.1 General

~~An Abstract Syntax Error occurs when the receiving functional NBAP entity receives IEs or IE groups that cannot be understood. The abstract syntax error also appears 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)~~

~~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 10.3.3.

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

CHANGE REQUEST		<i>Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.</i>
25.433	CR 151	Current Version: 3.1.0
<small>GSM (AA.BB) or 3G (AA.BBB) specification number ↑</small>		<small>↑ CR number as allocated by MCC support team</small>
For submission to: TSG RAN #8	for approval <input checked="" type="checkbox"/>	strategic <input type="checkbox"/>
<small>list expected approval meeting # here ↑</small>	for information <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:** May 2000

Subject: Editorial Correction for NBAP (IEs)

Work item: _____

Category:	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 type="checkbox"/> D Editorial modification <input checked="" type="checkbox"/>	Release:	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: Including the IE Type and References in Chapter 9.1 and re-shuffling the paragraphs for IE Chapter 9.2.

Clauses affected: 9.1, 9.2

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 Elements for NBAP communication

9.1 Message functional definition and content

9.1.1 Message Contents

9.1.1.1 Presence

An information element can be of the following *types*:

M	The information element is mandatory, i.e. always present in the message
O	The information element is optional, i.e. may or may not be present in the message independently on the presence or value of other information elements in the same message
C	The presence of the information element is conditional to the presence or to the value of another information element, as reported in the table below the message containing the explanation of the condition

In case of an information element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. The presence field of the information elements inside one group defines if the information element is mandatory, optional or conditional if the group is present.

9.1.1.2 Criticality

Each information element or Group of information elements may have a criticality information applied to it. Following cases are possible:

–	No criticality information is applied explicitly.
YES	Criticality information is applied. 'YES' is usable only for non-repeatable information elements.
GLOBAL	The information element and all its repetitions together have one common criticality information. 'GLOBAL' is usable only for repeatable information elements.
EACH	Each repetition of the information element has its own criticality information. It is not allowed to assign different criticality values to the repetitions. 'EACH' is usable only for repeatable information elements.

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		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE common physical channel to be configured					YES	ignore
>Secondary CCPCH					YES	reject
>Secondary CCPCH		1				
>>Common Physical Channel ID	M		9.2.1.13		–	
>>FDD S-CCPCH Offset	M		9.2.2.15	Corresponds to 25.211: s-CCPCH.k	–	
>>DL Scrambling Code	M		9.2.2.13		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>TFCS	M		9.2.1.54	For the DL.	–	
>>Secondary CCPCH Slot Format	M		9.2.2.43		–	
>>>TFCI Presence	C - SlotFormat		9.2.1.57		–	
>>Multiplexing Position	M		9.2.2.23		–	
>>STTD Indicator	M		9.2.2.47		–	
>>FACH Parameters	C-choiceCh	0..<maxnoofFACHs>			GLOBAL	reject
>>>Common transport channel ID	M		9.2.1.14		–	
>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>ToAWS	M		9.2.1.61		–	
>>>ToAWE	M		9.2.1.60		–	
>>>Max FACH Power	M		DL Power 9.2.1.21	Maximum allowed power on the FACH.	–	
>>PCH Parameters	C-choiceCh	0..1			YES	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>ToAWS	M		9.2.1.61		–	
>>>ToAWE	M		9.2.1.60		–	
>>>PCH Power	M		DL Power 9.2.1.21		–	
>>>PICH Parameters		1			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>DL Scrambling	M		9.2.2.13		–	

Code						
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		-	
>>>>PICH Power	M		DL Power 9.2.1.21	Power to be used on the PICH.	-	
>>>>PICH Mode	M		9.2.2.26	Number of PI per frame	-	
>>>>STTD Indicator	M		9.2.2.48		-	
>PRACH					YES	reject
>PRACH		1				
>>Common Physical Channel ID	M		9.2.1.13		-	
>>Scrambling Code Word Number	M		9.2.2.42		-	
>>TFCS	M		9.2.1.58	For the UL.	-	
>>Preamble Signatures	M		9.2.2.31		-	
>>Allowed Slot Format Information		1..<maxSF>			-	
>>>RACH Slot Format	M		9.2.2.37		-	
>RACH Sub Channel Numbers	M		9.2.2.38		-	
>Puncture Limit	M		9.2.1.50	For the UL	-	
>Preamble threshold	M		9.2.2.32		-	
>>RACH Parameters		1			YES	reject
>>>Common Transport Channel ID	M		9.2.1.14		-	
>>>Transport Format Set	M		9.2.1.59	For the UL.	-	
>>>AICH Parameters		1			-	
>>>>Common Physical Channel ID	M		9.2.1.13		-	
>>>>DL Scrambling Code	M		9.2.2.13		-	
>>>>AICH Transmission Timing	M		9.2.2.1		-	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		-	
>>>>AICH Power	M		DL Power 9.2.1.21		-	
>>>>STTD Indicator	M		9.2.2.47		-	

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.
MaxSF	Maximum number of SF for a PRACH

9.1.2.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE <i>common physical channels to be configured</i>					YES	ignore
<i>Secondary CCPCHs</i>					YES	reject
>CCTrCH ID	M		9.2.3.3	For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>TFCS	M		9.2.1.5	For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>Secondary CCPCH		<i>1..<maxnoofS - CCPCHs></i>			GLOBAL	reject
>>Common physical channel ID	M		9.2.1.13		–	
>>TDD Channelisation Code	M		9.2.3.19		–	
>>Time Slot	M		9.2.3.23		–	
>>Burst Type	M		9.2.3.2	Long or short midamble	–	
>>Midamble shift	M		9.2.3.7		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>S-CCPCH Power	M		DL Power 9.2.1.21		–	
>>FACH	C ChoiceCh	<i>0..<maxnoofFACHs></i>			GLOBAL	reject
>>>Common transport channel ID	M		9.2.1.61		–	
>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>ToAWS	M		9.2.1.61		–	
>>>ToAWE	M		9.2.1.60		–	
>>PCH	C ChoiceCh	<i>0..1</i>			GLOBAL	reject

>>>Common transport channel ID	M		9.2.1.13		-	
>>>Transport Format Set	M		9.2.1.59	For the DL.	-	
>>>ToAWS	M		9.2.1.61		-	
>>>ToAWE	M		9.2.1.60		-	
>>>PICH Parameters		1			-	
>>>>Common Physical Channel ID	M		9.2.1.13		-	
>>>>TDD Channelisation Code	M		9.2.3.19		-	
>>>>Time Slot	M		9.2.3.23		-	
>>>>Burst type	O		9.2.3.2		-	
>>>>Midamble shift	M		9.2.3.7		-	
>>>>TDD Physical Channel Offset	M		9.2.3.20		-	
>>>>Repetition period	M		9.2.3.16		-	
>>>>Repetition length	M		9.2.3.15		-	
>>>>Paging Indicator Length	M		9.2.3.8		-	
>>>>PICH Power	M		DL Power 9.2.1.21		YES	reject
PRACH						
>PRACH	M	1				
>>Common physical channel ID	M		9.2.1.13			
>>Time Slot	M		9.2.3.23			
>>TDD Channelisation Code	M		9.2.3.19			
>>Max PRACH Midamble Shifts	O		9.2.3.6			
>>PRACH Midamble	M		9.2.3.14			
>>RACH					-	
>>>Common transport channel ID	M		9.2.1.13		-	

Condition	Explanation
<i>ChoiceCh</i>	One of the channels FACH or PCH or both must be present.

Range bound	Explanation
<i>MaxnoofS-CCPCHs</i>	Maximum number of Secondary CCPCHs per CCTrCH.
<i>MaxnoofCCTrCHs</i>	Maximum number of CCTrCHs that can be defined in a cell.
<i>MaxnoofFACHs</i>	Maximum number of FACHs that can be defined on a Secondary CCPCH.

9.1.3 COMMON TRANSPORT CHANNEL SETUP RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
CHOICE <i>common transport channel configured</i>					YES	ignore
>FACH					YES	ignore
>FACH Parameters	C-choiceCh	0..<maxnoofFACHs>			–	
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport layer address	M		9.2.1.63		–	
>PCH					YES	ignore
>PCH Parameters	C-choiceCh	0..1			–	
>>Common transport channel ID	M		9.2.1.14		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport layer address	M		9.2.1.63		–	
>RACH					YES	ignore
>RACH parameters		1				
>>Common transport channel ID	M		9.2.1.14		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport layer address	M		9.2.1.63		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

Condition	Explanation
<i>ChoiceCh</i>	One of the channels FACH or PCH or both must be present.

Range bound	Explanation
<i>MaxnoofFACHs</i>	Maximum number of FACHs that can be defined on a Secondary CCPCH[FDD] / a group of Secondary CCPCHs [TDD].

9.1.4 COMMON TRANSPORT CHANNEL SETUP FAILURE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	–
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	–
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

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		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
FACH parameters		<i>0..<maxFACHCell></i>			GLOBAL	reject
>Common Transport Channel ID	M		9.2.1.14		–	
>Max FACH Power	O		DL Power 9.2.1.21	Maximum allowed power on the FACH.	–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
PCH Parameters		<i>0..1</i>			YES	reject
>Common Transport Channel ID	M		9.2.1.14		–	
>PCH Power	O		DL Power 9.2.1.21	Power to be used on the PCH.	–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
PICH Parameters		<i>0..1</i>			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>PICH Power	M		DL Power 9.2.1.21	Power to be used on the PICH.	–	
PRACH Parameters		<i>0..<maxno ofPRACHs></i>			GLOBAL	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Preamble Signatures	M		9.2.2.31		–	
>Allowed Slot Format Information		<i>0..<maxSF></i>			–	
>>RACH Slot Format	M		9.2.2.37		–	
>RACH Sub Channel Numbers	O		9.2.2.38		–	
AICH Parameters		<i>0..<maxno ofPRACHs></i>			GLOBAL	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>AICH Power	M		DL Power 9.2.1.21	Power to be used on the AICH.	–	

Range bound	Explanation
<i>MaxFACHCell</i>	Maximum number of FACHs that can be defined in a Cell
maxnoofPRACHs	Maximum number of PRACHs and AICHs that can be defined in a Cell
<i>maxSF</i>	Maximum number of SF for a PRACH

9.1.5.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
Secondary CCPCH parameters		0 .. 1			YES	reject
>CCTrCH ID	M		9.2.3.3	For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>Secondary CCPCHs to be configured		0.. <MaxnoofS CCPCHs>			GLOBAL	reject
>>Common physical channel ID	M		9.2.1.13		–	
>>S-CCPCH Power	M		9.2.1.21	DL power	–	
PICH Parameters		0 .. 1			YES	reject
>Common physical channel ID	M		9.2.1.13		–	
>PICH Power	M		9.2.1.21		–	
FACH parameters		0..<Maxno ofFACHs>			GLOBAL	reject
>Common Transport Channel ID	M		9.2.1.14		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
PCH parameters		0 .. 1			GLOBAL	reject
>Common Transport Channel ID	M		9.2.1.14		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	

Range bound	Explanation
<i>MaxFACHCell</i>	Maximum number of FACHs that can be repeated in a Cell

9.1.6 COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.7 COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.8 COMMON TRANSPORT CHANNEL DELETION REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Common Physical Channel ID	M		9.2.1.13	Indicates the Common Physical Channel for which the Common Transport Channels (together with the Common Physical Channel) shall be deleted.	YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject

9.1.9 COMMON TRANSPORT CHANNEL DELETION RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.10 BLOCK RESOURCE REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Blocking Priority Indicator	M		9.2.1.5		YES	reject
Shutdown Timer	C- <i>BlockNormal</i>				YES	reject

Condition	Explanation
BlockNormal	The information element is present when the Blocking Priority Indicator IE indicates 'Normal Priority'.

9.1.11 BLOCK RESOURCE RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.12 BLOCK RESOURCE FAILURE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.13 UNBLOCK RESOURCE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	ignore

9.1.14 AUDIT REQUIRED INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	

9.1.15 AUDIT REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	

9.1.16 AUDIT RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Information		1				
>DL or Global Capacity Credit	M		9.2.2.12			
>UL Capacity Credit	O		9.2.2.60			
>Common Channels Capacity Consumption Law	M		9.2.2.3			
>Dedicated Channels Capacity Consumption Law	M		9.2.2.6			
Cell Information		0.. < maxCellin NodeB >			EACH	ignore
>C-ID	M		9.2.1.9		–	
>Configuration Generation ID	M		9.2.1.16			
>Resource Operational State	M		9.2.1.52		–	
>Availability Status	M		9.2.1.2		–	
>Local Cell ID	M		9.2.1.38	The local cell that the cell is configured on		
>Maximum DL Power Capability	FFS		9.2.1.39		–	
>Minimum Spreading Factor	FFS		9.2.1.47		–	
>Primary SCH Information		0..1			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary SCH Information		0..1			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Primary CPICH Information		0..1			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary CPICH Information		0..<maxSCPICHCell>			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	

>>Availability Status	M		9.2.1.2		–	
>Primary CCPCH Information		0..1			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>BCH Information		0..1			YES	ignore
>>Common Transport Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary CCPCH Information		0..<maxSC CPCHCell >			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PCH Information		0..1			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PICH Information		0..1			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>FACH Information		0..<maxFA CHCell>			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PRACH Information		0..<maxPR ACHCell>			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>RACH Information		0..<maxRA CHCell>			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>AICH Information		0..<maxRA CHCell>			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	

>>Resource Operational State	M		9.2.1.52		-	
>>Availability Status	M		9.2.1.2		-	
>SCH Information		0..1			YES	ignore
>>Common Transport Channel ID	M		9.2.1.14		-	
>>Resource Operational State	M		9.2.1.52		-	
>>Availability Status	M		9.2.1.2		-	
Communication Control Port Information		0.. <maxCCPi nNodeB>			EACH	ignore
>Communication Control Port ID	M		9.2.1.15		-	
>Resource Operational State	M		9.2.1.52		-	
>Availability Status	M		9.2.1.2		-	
Local Cell Information		0.. <maxLocal CellinNode B>			EACH	ignore
>Local Cell ID	M		9.2.1.38		-	
>DL or Global Capacity Credit	M		9.2.2.12			
>UL Capacity Credit	O		9.2.2.60			
>Common Channels Capacity Consumption Law	M		9.2.2.3			
>Dedicated Channels Capacity Consumption Law	M		9.2.2.6			
>Maximum DL Power Capability	O		9.2.1.39		-	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
maxCellinNodeB	Maximum number of Cell that can be configured in Node B
maxCCPinNodeB	Maximum number of communication control ports that can exist in the Node B
maxLocalCellinNodeB	Maximum number of Local Cells that can exist in the Node B
maxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.
maxSCCPCHCell	Maximum number of Secondary CCPCH that can be defined in a Cell.
maxFACHCell	Maximum number of FACHes that can be defined in a Cell

9.1.17 COMMON MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	reject
Common Measurement Object Type	M		9.2.1.10		YES	reject
CHOICE Common Measurement Object Type					YES	ignore
>"Cell"					YES	reject
>>C-ID	M		9.2.1.9		–	
>>Time Slot	O		9.2.3.23	TDD only	–	
>"RACH"					YES	reject
>>C-ID	M		9.2.1.9		–	
>>Common transport channel ID	M		9.2.1.14		–	
Common Measurement Type	M		9.2.1.11		YES	reject
Measurement Filter Coefficient	O		9.2.1.41		YES	reject
Report Characteristics	M		9.2.1.51		YES	reject

9.1.18 COMMON MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	ignore
CHOICE Common Measurement Object Type					YES	ignore
>"Cell"					YES	ignore
>>Common Measurement value	M		9.2.1.12		–	
>"RACH"					YES	ignore
>>Common Measurement Value	M		9.2.1.12		–	
SFN	O			Common Measurement Time Reference	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.19 COMMON MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.20 COMMON MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	ignore
CHOICE Common <i>Measurement Object Type</i>					YES	ignore
>"Cell"					YES	ignore
>>Common Measurement value	M		9.2.1.12		–	
>"RACH"					YES	ignore
>>Common Measurement Value	M		9.2.1.12		–	
SFN	O			Common Measuremen t Time Reference	YES	ignore

9.1.21 COMMON MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	ignore

9.1.22 COMMON MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore

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		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Local Cell Id	M		9.2.1.38		YES	reject
C-Id	M		9.2.1.9		YES	reject
Configuration Generation Id	M		9.2.1.16		YES	reject
T Cell	M		9.2.2.49		YES	reject
UARFCN	M		9.2.1.65	Corresponds to Nu [TS25.104]	YES	reject
UARFCN	M		9.2.1.65	Corresponds to Nd [TS25.104]		
Maximum transmission power	M		9.2.1.40		YES	reject
Primary scrambling code	M		9.2.2.34		YES	reject
Primary SCH Information		1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary SCH Power	M		DL Power 9.2.1.21		–	
>TSTD Indicator	M		9.2.1.64		–	
Secondary SCH Information		1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Secondary SCH power	M		DL Power 9.2.1.21		–	
>TSTD Indicator	M		9.2.1.64		–	
Primary CPICH Information		1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary CPICH power	M		9.2.2.33		–	
>Transmit Diversity Indicator	M		9.2.2.53		–	
Secondary CPICH Information		0..<maxSC PICHCell>			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>DL Scrambling code	M		9.2.2.13		–	
>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>Secondary CPICH Power	M		DL Power 9.2.1.21		–	
>Transmit Diversity Indicator	M		9.2.2.53		–	
Primary CCPCH Information		1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>BCH Information		1			–	
>>Common Transport Channel ID	M		9.2.1.14		–	
>>BCH Power	M		DL Power 9.2.1.21		–	
>STTD Indicator	M		9.2.2.47		–	

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		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Local Cell Id	M		9.2.1.38		YES	reject
C-Id	M		9.2.1.9		YES	reject
Configuration Generation Id	M		9.2.1.16		YES	reject
UARFCN	M		9.2.1.65	Corresponds to Nt [TS25.105]	YES	reject
Cell Parameter ID	M		9.2.3.4		YES	reject
Maximum Transmission Power	M		9.2.1.40		YES	reject
Transmission Diversity Applied	M		9.2.3.26	On DCHs	YES	reject
Sync Case	M		9.2.3.18		YES	reject
SCH Information		1			YES	reject
>Common physical channel ID	M		9.2.1.13		–	
>CHOICE Sync Case						
>>Case 1					YES	reject
>>>Time Slot	M		9.2.3.23		–	
>>Case 2					YES	reject
>>>SCH Time Slot	M		9.2.3.17		–	
>SCH Power	M		DL Power 9.2.1.21		–	
>TSTD Indicator	M		9.2.1.64		–	
PCCPCH Information		1			YES	reject
>Common physical channel ID	M		9.2.1.13		–	
>TDD Physical Channel Offset	M		9.2.3.20		–	
>Repetition Period	M		9.2.3.16		–	
>Repetition Length	M		9.2.3.15		–	
>PCCPCH Power	M		9.2.3.9		–	
>Block STTD Indicator	M		9.2.3.1		–	
Time Slot Configuration		1 .. 15			GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
>Time Slot Status	M		9.2.3.25		–	
>Time Slot Direction	M		9.2.3.24		–	

9.1.24 CELL SETUP RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.25 CELL SETUP FAILURE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

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		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation Id	M		9.2.1.16		YES	reject
Maximum transmission power	O		9.2.1.40		YES	reject
Primary SCH Information		0,1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary SCH power	M		DL Power 9.2.1.21		–	
Secondary SCH Information		0,1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Secondary SCH power	M		DL Power 9.2.1.21		–	
Primary CPICH Information		0,1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Primary CPICH power	M		9.2.2.33		–	
Secondary CPICH Information		0..<maxSC PICHCell>			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>Secondary CPICH Power	M		DL Power 9.2.1.21		–	
Primary CCPCH Information		0,1			YES	reject
>BCH Information		1			–	
>>Common Transport Channel ID	M		9.2.1.14		–	
>>BCH Power	M		DL Power 9.2.1.21		–	

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		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-Id	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
SCH Information		0,1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>SCH Power	M		DL Power 9.2.1.21		–	
PCCPCH Information		0,1			YES	reject
>Common Physical Channel ID	M		9.2.1.13		–	
>PCCPCH Power	M		9.2.3.9		–	
Maximum Transmission Power	O		9.2.1.40		YES	reject
Time Slot Configuration		1..15			GLOBAL	reject
>Time Slot	M		9.2.3.23		–	
>Time Slot Status	M		9.2.3.25		–	
>Time Slot Direction	M		9.2.3.24		–	

9.1.27 CELL RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.28 CELL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.29 CELL DELETION REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject

9.1.30 CELL DELETION RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.31 RESOURCE STATUS INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Indication Type	M		9.2.1.36		YES	ignore
CHOICE Indication Type					YES	ignore
>"No Failure"					YES	ignore
>>Node B Information		1				
>>>DL or Global Capacity Credit	M		9.2.2.12			
>>>UL Capacity Credit	O		9.2.2.60			
>>>Common Channels Capacity Consumption Law	M		9.2.2.3			
>>>Dedicated Channels Capacity Consumption Law	M		9.2.2.6			
>>Local Cell Information		1.. <max LocalCellin NodeB >			EACH	ignore
>>>Local Cell ID	M		9.2.1.58		–	
>>>Add/Delete Indicator	M		9.2.1.1		–	
>>>DL or Global Capacity Credit	C-add		9.2.2.12			
>>>UL Capacity Credit	O		9.2.2.60			
>>>Common Channels Capacity Consumption Law	C-add		9.2.2.3			
>>>Dedicated Channels Capacity Consumption Law	C-add		9.2.2.6			
>>>Maximum DL Power Capability	M		9.2.1.39		–	
>"Service Impacting"					YES	ignore
>>Node B Information		0..1				
>>>DL or Global Capacity Credit	O		9.2.2.12			
>>>UL Capacity Credit	O		9.2.2.60			
>>Local Cell Information		0.. <maxLocal CellinNode B>			EACH	ignore
>>>Local Cell ID	M		9.2.1.38		–	
>>>DL or Global Capacity Credit	O		9.2.2.12			
>>>UL Capacity Credit	O		9.2.2.60			
>>>Maximum DL Power Capability	O		9.2.1.39		–	
>>Communication Control Port Information		0.. <maxCCPi nNodeB>			EACH	ignore

>>>Communication Control Port ID	M		9.2.1.15		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>Cell Information		<i>0..<maxCellinNodeB></i>			EACH	ignore
>>>C-ID	M		9.2.1.9		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>>Maximum DL Power Capability	FFS		9.2.1.39		-	
>>>Minimum Spreading Factor	FFS		9.2.1.47		-	
>>Primary SCH Information		<i>0..1</i>			YES	ignore
>>>Common Physical Channel ID	M		9.2.1.13		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>Secondary SCH Information		<i>0..1</i>			YES	ignore
>>>Common Physical Channel ID	M		9.2.1.13		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>Primary CPICH Information		<i>0..1</i>			YES	ignore
>>>Common Physical Channel ID	M		9.2.1.13		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>Secondary CPICH Information		<i>0..<maxSCPICHCell></i>			EACH	ignore
>>>Common Physical Channel ID	M		9.2.1.13		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>Primary CCPCH Information		<i>0..1</i>			YES	ignore
>>>Common Physical Channel ID	M		9.2.1.13		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability	M		9.2.1.2		-	

Status						
>>BCH Information		0..1			YES	ignore
>>>Common Transport Channel ID	M		9.2.1.14		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>Secondary CCPCH Information		0..<maxSC CPCHCell>			EACH	ignore
>>>Common Physical Channel ID	M		9.2.1.13		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>PCH Information		0..1			EACH	ignore
>>>Common Transport Channel ID	M		9.2.1.14		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>PICH Information		0..1			YES	ignore
>>>Common Physical Channel ID	M		9.2.1.13		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>FACH Information		0..<maxFACHCell>			EACH	ignore
>>>Common Transport Channel ID	M		9.2.1.14		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>PRACH Information		0..<maxPRACHCell>			EACH	ignore
>>>Common Physical Channel ID	M		9.2.1.13		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>RACH Information		0..<maxPRACHCell>			EACH	ignore
>>>Common Transport Channel ID	M		9.2.1.14		-	
>>>Resource Operational State	M		9.2.1.52		-	

>>>Availability Status	M		9.2.1.2		-	
>>AICH Information		0.. <maxPRA CHCell>			EACH	ignore
>>>Common Physical Channel ID	M		9.2.1.13		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
>>SCH Information		0..1			YES	ignore
>>>Common Transport Channel ID	M		9.2.1.14		-	
>>>Resource Operational State	M		9.2.1.52		-	
>>>Availability Status	M		9.2.1.2		-	
Cause	O		9.2.1.6		YES	ignore

Condition	Explanation
C-add	This IE is present only if "Add/Delete Indicator" equals to add

Range bound	Explanation
<i>maxLocalCellinNodeB</i>	Maximum number of Local Cells that can exist in the Node B
<i>maxCellinNodeB</i>	Maximum number of C ID that can be configured in Node B
<i>maxSCPICHCell</i>	Maximum number of Secondary CPICH that can be defined in a Cell.
<i>maxSCCPCHCell</i>	Maximum number of Secondary CCPCH that can be defined in a Cell.
<i>maxFACHCell</i>	Maximum number of FACHes that can be defined in a Cell
<i>maxPRACHCell</i>	Maximum number of PRACHes and AICHes that can be defined in a Cell
<i>maxCCPinNodeB</i>	Maximum number of communication control ports that can exist in the Node B
<i>maxConsumptionLaws</i>	Maximum number of credit consumption laws.

9.1.32 SYSTEM INFORMATION UPDATE REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		-	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		-	

C-ID	M		9.2.1.9		YES	reject
BCCH Modification Time	O		9.2.1.3		YES	reject
MIB/SIBInformation		1.. <i>maxIB</i>			GLOBAL	reject
>IB Type	M		9.2.1.35	In one message, every IB Type can only be indicated once.	–	
>SIB Deletion Indicator	C-NotMIB		9.2.1.54		–	
>CHOICE <i>DeletionIndicator</i>						
> <i>NoDeletion</i>					YES	reject
>>SIB Originator	C-NotMIB		9.2.1.55		–	
>>IB SG REP	M		9.2.1.34		–	
>>Segment Information		1.. <i>maxIBSEG</i>			GLOBAL	reject
>>>IB SG POS	M		9.2.1.33		–	
>>>IB SG DATA	C – CRNCOri nation		9.2.1.32		–	

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"

9.1.33 SYSTEM INFORMATION UPDATE RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.34 SYSTEM INFORMATION UPDATE FAILURE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

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		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	reject
Transaction ID	M		9.2.1.62		–	
UL DPCH Information		1			YES	reject
>UL Scrambling Code	M		9.2.2.59		–	
>Min UL Channelisation Code length	M		9.2.2.22		–	
>Max Number of UL DPDCHs	C – CodeLen		9.2.2.21		–	
>puncture limit	M		9.2.1.50	For UL	–	
>TFCS	M		9.2.1.58	for UL	–	
>UL DPCH Slot Format	M		9.2.2.57		–	
> UL SIR Target	M		UL SIR 9.2.2.58		–	
>Diversity mode	M		9.2.2.29		–	
>D Field Length	C – FB		9.2.2.5		–	
>SSDT cell ID Length	O		9.2.2.45		–	
>S Field Length	O		9.2.2.40		–	
DL DPCH Information					YES	reject
>TFCS	M		9.2.1.58	For DL	–	
>DL DPCH Slot Format	M		9.2.2.10		–	
>TFCI signalling mode	M		9.2.2.50		–	
>TFCI presence	C- SlotFormat		9.2.1.57		–	
>Multiplexing Position	M		9.2.2.29		–	
>PDSCH RL ID	C-DSCH		RL ID 9.2.1.53		–	
>PDSCH code mapping	C-DSCH		9.2.2.25		–	
>Power Offset Information		1			–	
>>PO1	M		Power Offset 9.2.2.29	Power offset for the TFCI bits	–	
>>PO2	M		Power Offset 9.2.2.29	Power offset for the TPC bits	–	
>>PO3	M		Power Offset 9.2.2.29	Power offset for the pilot bits	–	
>FDD TPC DL Step Size	M		9.2.2.16		–	
DCH Information		1 to <maxnoof DCHs>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
>DCH Combination Ind	O		9.2.1.19		–	
>Limited Power Increase	M		9.2.1.37		–	
>Transport Format Set	M		9.2.1.59	For UL	–	
>Transport Format Set	M		9.2.1.59	For DL	–	
>Frame Handling Priority	M		9.2.1.30		–	
>Payload CRC Presence	M		9.2.1.49		–	

Indicator						
>UL FP mode	M		9.2.1.66		–	
>QE-Selector	M		9.2.2.36			
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
DSCH Information		0 to <maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M		9.2.1.27		–	
>Transport Format Set	M		9.2.1.59	For DSCH	–	
>Frame handling Priority	M		9.2.1.30		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
RL Information		1 to <maxnoof RLs>			EACH	notify
>RL ID	M		9.2.1.53		–	
>C-ID	M		9.2.1.9		–	
>Frame Offset	M		9.2.1.31		–	
>Chip Offset	M		9.2.2.2		–	
>Propagation Delay	O		9.2.2.35		–	
>Diversity Control Field	C – NotFirstRL		9.2.2.7		–	
>DL Code Information		1 to <maxnoof- DLCodes			–	
>>DL Scrambling Code	M		9.2.2.13		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>Initial DL transmission Power	M		DL Power 9.2.1.21		–	
>Maximum DL power	M		DL Power 9.2.1.21		–	
>Minimum DL power	M		DL Power 9.2.1.21		–	
>SSDT Cell Identity	O		9.2.2.44		–	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.53			

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		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	reject
Transaction ID	M		9.2.1.62		–	
UL CCTrCH Information		0 to <maxno CCTrCH>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
UL DPCH Information		0 to <maxnoOf DPCH>			GLOBAL	notify
>DPCH ID	M		9.2.3.5		–	
>TDD Channelisation Code	M		9.2.3.19		–	
>Burst Type	M		9.2.3.2		–	
>Midamble Shift	M		9.2.3.7		–	
>Time Slot	M		9.2.3.23		–	
>TDD Physical Channel Offset	M		9.2.3.20		–	
>Repetition Period	M		9.2.1.16		–	
>Repetition Length	M		9.2.1.15		–	
>TFCI Presence	M		9.2.1.57		–	
DL CCTrCH Information		0 to <maxno CCTrCH>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>TDD TPC DL Step Size	M		9.2.3.21			
DL DPCH information		0 to <maxnoOf DPCH>			GLOBAL	notify
>DPCH ID	M		9.2.3.5		–	
>TDD Channelisation Code	M		9.2.3.19		–	
>Burst Type	M		9.2.3.2		–	
>Midamble Shift	M		9.2.3.7		–	
>Time Slot	M		9.2.3.23		–	
>TDD Physical Channel Offset	M		9.2.3.20		–	
>Repetition Period	M		9.2.3.16		–	
>Repetition Length	M		9.2.3.15		–	
>TFCI Presence	M		9.2.1.57		–	
DCH Information		0 to <maxnoof DCHs>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
>Limited Power Increase	M		9.2.1.37		–	
>CCTrCH ID	M		9.2.3.3	UL CCTrCH	–	

				in which the DCH is mapped		
>CCTrCH ID	M		9.2.3.3	DL CCTrCH in which the DCH is mapped	-	
>DCH Combination Ind	O		9.2.1.19		-	
>Transport Format Set	M		9.2.1.59	For UL	-	
>Transport Format Set	M		9.2.1.59	For DL	-	
>Frame Handling Priority	O		9.2.1.30		-	
>Payload CRC Presence Indicator	M		9.2.1.49		-	
>UL FP mode	M		9.2.1.66		-	
>ToAWS	M		9.2.1.61		-	
>ToAWE	M		9.2.1.60		-	
DSCH Information		0 to <Maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M		9.2.1.27		-	
>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DSCH is mapped	-	
>Transport Format Set	M		9.2.1.59	For DSCH	-	
>Frame handling Priority	M		9.2.1.30		-	
>ToAWS	M		9.2.1.61		-	
>ToAWE	M		9.2.1.60		-	
USCH Information		0 to <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M		9.2.3.27		-	
>CCTrCH ID	M		9.2.3.3	UL CCTrCH in which the USCH is mapped	-	
>Transport Format Set	M		9.2.1.59	For USCH	-	
RL Information		1			YES	reject
>RL ID	M		9.2.1.53		-	
>C-ID	M		9.2.1.9		-	
>Frame Offset	M		9.2.1.31		-	
>Initial DL transmission Power	M		DL Powe 9.2.1.21r		-	
>Maximum DL power	M		DL Power 9.2.1.21		-	
>Minimum DL power	M		DL Power 9.2.1.21		-	

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

9.1.36 RADIO LINK SETUP RESPONSE

9.1.36.1 FDD message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48		YES	ignore
Communication Control Port ID	M		9.2.1.15		YES	ignore
RL Information Response		1 to <maxnoofRLs>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>RL Set ID	M		9.2.2.39			
>UL interference level	M		9.2.1.67		–	
>Diversity Indication	C-NotFirstRL		9.2.2.8		–	
>CHOICE <i>diversity Indication</i>						
>>Combining					YES	ignore
>>>RL ID	M		9.2.1.53	Reference RL ID for the combining	–	
>>Non Combining or IE not present					YES	Ignore
>>>DCH Information Response		0 to <maxnoofDCHs>		Only one DCH per set of coordinated DCH shall be included	–	
>>>>DCH ID	M		9.2.1.20		–	
>>>>Binding ID	M		9.2.1.4		–	
>>>>Transport Layer Address	M		9.2.1.63		–	
>DSCH Information Response		0 to <Numof DSCH>			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>SSDT Support Indicator	M		9.2.2.46		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Condition	Explanation
NotFirstRL	This IE is present only if the RL is not the first one in the RL Information.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of DCH per UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.

9.1.36.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48		YES	ignore
Communication Control Port ID	M		9.2.1.15		YES	ignore
RL Information Response		1			YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Interference per Time Slot		1 .. <maxnoofULts>		Interference Level for each UL time slot within the Radio Link		
>Time Slot	M		9.2.3.23			
>UL interference level	M		9.2.1.67			
>DCH Information Response		1 to <maxnoofDCH>		Only one DCH per set of coordinated DCH shall be included.	GLOBAL	ignore
>>DCH ID	M		9.2.1.20		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>DSCH Information Response		0 .. <MaxnoofDSCHs>			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH Information Response		0 .. <MaxnoofUSCHs>			GLOBAL	ignore
>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCH per UE
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUSCHs	Maximum number of USCHs for one UE
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.1.37 RADIO LINK SETUP FAILURE

9.1.37.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48		YES	ignore
Communication Control Port ID	O		9.2.1.15		YES	ignore
Unsuccessful RL Information Response		1 to <maxnoo fRLs>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>Cause	M		9.2.1.6		–	
Successful RL Information Response		0 to <maxnoo fRLs–1>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>RL Set ID	M		9.2.2.39			
>UL interference level	M		9.2.1.67		–	
>Diversity Indication	C-NotFirstRL		9.2.2.8		–	
>CHOICE <i>diversity Indication</i>					–	
>>Combining					YES	ignore
>>>RL ID	M		9.2.1.53	Reference RL ID for the combining	–	
>>>Non Combining or IE not present					YES	ignore
>>>DCH Information Response		0 to <maxnoo fDCHs>		Only one DCH per set of coordinated DCH shall be included	–	
>>>>DCH ID	M		9.2.1.20		–	
>>>>Binding ID	M		9.2.1.4		–	
>>>>Transport Layer Address	M		9.2.1.63		–	
>DSCH Information Response		0 to <Numof DSCH>			GLOBAL	Ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>SSDT Support Indicator	M		9.2.2.46		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Condition	Explanation
Success	This IE is present if at least one of the radio links has been successfully set up.
NotFirstRL	This IE is present only if the RL is not the first one in the RL Information.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of set DCH per UE.
MaxnoofDSCHs	Maximum number of DSCH for one UE

9.1.37.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Unsuccessful RL Information Response		1			YES	ignore
>RL ID	M		9.2.1.55		–	
>Cause	M		9.2.1.6		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.38 RADIO LINK ADDITION REQUEST

9.1.38.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Node B Communication Context ID	M		9.2.1.48		YES	reject
Transaction ID	M		9.2.1.62		–	
RL Information		1..<maxnoofRL-1>			EACH	notify
>RL ID	M		9.2.1.53		–	
>C-Id	M		9.2.1.9		–	
>Frame Offset	M		9.2.1.31		–	
>Chip Offset	M		9.2.2.2		–	
>Diversity Control Field	M		9.2.2.7		–	
>DL Code Information		1..maxnoofDL Codes			–	
>>DL Scrambling code	M		9.2.2.13		–	
>>FDD DL channelisation code number	M		9.2.2.14		–	
>Initial DL transmission power	O		DL Power 9.2.1.21		–	
>Maximum DL power	O		DL Power 9.2.1.21		–	
>Minimum DL power	O		DL Power 9.2.1.21		–	
>SSDT Cell Identity	O		9.2.2.44		–	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.53			

Condition	Explanation
Diversity mode	This IE is present unless <i>Diversity Mode</i> IE in <i>UL DPCH Information</i> group is “none”

Range bound	Explanation
<i>MaxnoofRL</i>	Maximum number of RLs for one UE
<i>MaxnoofDL Codes</i>	Maximum number of DL code information

9.1.38.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Node B Communication Context ID	M		9.2.1.48		YES	reject
Transaction ID	M		9.2.1.52		–	
UL CCTrCH Information		0 to <maxn o CCTrCH>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
UL DPCH Information		0 to <maxn oOfDPCH>			EACH	notify
>DPCH ID	M		9.2.3.5		–	
>TDD Channelisation Code	M		9.2.3.19		–	
>Burst Type	M		9.2.3.2		–	
>Midamble Shift	M		9.2.3.7		–	
>Time Slot	M		9.2.3.23		–	
>TDD Physical Channel Offset	M		9.2.3.20		–	
>Repetition Period	M		9.2.3.16		–	
>Repetition Length	M		9.2.3.15		–	
>TFCI Presence	M		9.2.1.57		–	
DL CCTrCH Information		0 to <maxn o CCTrCH>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
DL DPCH information		0 to <maxn oOfDPCH>			EACH	notify
>DPCH ID	M		9.2.3.5		–	
>TDD Channelisation Code	M		9.2.2.79.2.3.19		–	
>Burst Type	M		9.2.3.2		–	
>Midamble Shift	M		9.2.3.7		–	
>Time Slot	M		9.2.3.23		–	
>TDD Physical Channel Offset	M		9.2.3.20		–	
>Repetition Period	M		9.2.3.16		–	
>Repetition Length	M		9.2.3.15		–	
>TFCI Presence	M		9.2.1.57		–	
RL Information		1			YES	reject
>RL ID	M		9.2.1.53		–	
>C-Id	M		9.2.1.9		–	
>Frame Offset	M		9.2.1.31		–	
>Diversity Control Field	M		9.2.2.7		–	
>Initial DL Power	O		DL Power 9.2.1.21		–	
>Maximum DL power	O		DL Power 9.2.1.21		–	
>Minimum DL power	O		DL Power 9.2.1.21		–	

Range bound	Explanation
MaxnoOfDPCH	Maximum number of DPCH in one CCTrCH
MaxnoCCTrCH	number of CCTrCH for one UE.

9.1.39 RADIO LINK ADDITION RESPONSE

9.1.39.1 FDD message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
RL Information Response		1..<maxno ofRL-1>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>RL Set ID	M		9.2.2.9			
>UL interference level	M		9.2.1.67		–	
>Diversity Indication	M		9.2.2.8		–	
>CHOICE <i>diversity indication</i>					–	
>>Combining					YES	ignore
>>>RL ID	M		9.2.1.53	Reference RL	–	
>>Non combining					YES	ignore
>>>DCH Information Response		1..<maxno ofDCHs>			–	
>>>>DCH ID	M		9.2.1.20		–	
>>>>Binding ID	M		9.2.1.4		–	
>>>>Transport Layer Address	M		9.2.1.63		–	
>SSDT support indicator	M		9.2.2.46		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs per UE
<i>MaxnoofRL</i>	Maximum number of RLs for one UE

9.1.39.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
RL Information response		1			YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Interference per Time Slot	M	1 .. <maxn oofULts >		Interference Level for each UL time slot within the Radio Link		
>>Time Slot	M		9.2.3.23			
>>UL interference level	M		9.2.1.67		–	
>Diversity Indication	M		9.2.2.8		–	
>CHOICE <i>diversity indication</i>						
>Combining				In TDD it indicates whether the old Transport Bearer shall be reused or not	YES	ignore
>>RL ID	M		9.2.1.53	Reference RL	–	
>Non combining					YES	ignore
>>>DCH Information Response		0..<maxnoofDCHs>			–	
>>>DCH ID	M		9.2.1.20		–	
>>>Binding ID	M		9.2.1.4		–	
>>>Transport Layer Address	M		9.2.1.63		–	
>DSCH Information Response		0 .. <Maxn oofDSC Hs			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH Information Response		0 .. <Maxn oofUSC Hs			GLOBAL	ignore
>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs per UE
<i>MaxnoofDSCHs</i>	Maximum number of DSCHs for one UE
<i>MaxnoofUDCHs</i>	Maximum number of USCHs for one UE
<i>MaxnoofULts</i>	Maximum number of Uplink time slots per Radio Link

9.1.40 RADIO LINK ADDITION FAILURE

9.1.40.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Unsuccessful RL Information Response		1..<maxnoofRL-1>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>Cause	M		9.2.1.6		–	
Successful RL Information Response		1..<maxnoofRL-2>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>RL Set ID	M		9.2.2.39		–	
>UL interference level	M		9.2.1.67		–	
>Diversity Indication	M		9.2.2.8		–	
>CHOICE <i>diversity indication</i>						
>>Combining					YES	ignore
>>>RL ID	M		9.2.1.53	Reference RL	–	
>>Non combining					YES	Ignore
>>>DCH Information Response		1..<maxnoofDCHs>			–	
>>>>DCH ID	M		9.2.1.20		–	
>>>>Binding ID	M		9.2.1.4		–	
>>>>Transport Layer Address	M		9.2.1.63		–	
>SSDT support indicator	M		9.2.2.46		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs per UE
<i>MaxnoofRL</i>	Maximum number of RLs for one UE

9.1.40.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Unsuccessful RL Information Response		1			YES	ignore
>RL ID	M		9.2.1.53		–	
>Cause	M		9.2.1.6		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

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		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Node B Communication Context ID	M		9.2.1.48		YES	reject
Transaction ID	M		9.2.1.62		–	
UL DPCH Information		0..1			YES	reject
>UL Scrambling code	O		9.2.2.59		–	
>UL SIR Target	O		UL SIR 9.2.2.58			
>Min UL Channelisation Code Length	O		9.2.2.22		–	
>Max Number of UL DPDCHs	C – CodeLen		9.2.2.20		–	
>Puncture Limit	O		9.2.1.50	For UL	–	
>TFCS	O		9.2.1.58		–	
>UL DPCCCH Slot Format	O		9.2.2.57		–	
>SSDT Cell Identity Length	O		9.2.2.45		–	
>S-Field Length	O		9.2.2.40		–	
DL DPCH Information		0..1			YES	reject
>TFCS	O		9.2.1.58		–	
>DL DPCH Slot Format	O		9.2.2.10		–	
>TFCI Signalling Mode	O		9.2.2.50		–	
>TFCI presence	C-Slot Format		9.2.1.57		–	
>Multiplexing Position	O		9.2.2.23		–	
>PDSCH code mapping	O		9.2.2.25			
>PDSCH RL ID	O		RL ID 9.2.1.53			
DCHs to Modify		0..<max noofDC Hs>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
>Transport Format Set	O		9.2.1.59	For the UL.	–	
>Transport Format Set	O		9.2.1.59	For the DL.	–	
>Frame Handling Priority	O		9.2.1.20		–	
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
DCHs to Add		0..<max noofDC Hs>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
>DCH Combination Ind	O		9.2.1.19		–	
>Limited Power Increase	M		9.2.1.37		–	
>Transport Format Set	M		9.2.1.59	For the UL.	–	
>Transport Format Set	M		9.2.1.59	For the DL.	–	
>Frame Handling Priority	M		9.2.1.30		–	
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>UL FP Mode	M		9.2.1.66		–	
>QE-Selector	M		9.2.2.36			

>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
DCHs to Delete		<i>0..<max noofDC Hs></i>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
DSCH to modify		<i>0..<max noofDS CHs></i>			YES	reject
>DSCH ID	M		9.2.1.27		–	
>Transport Format Set	O		9.2.1.59	For the DL.	–	
>Frame Handling Priority	O		9.2.1.30		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
DSCH to add		<i>0..<max noofDS CHs></i>			YES	reject
>DSCH ID	M		9.2.1.27		–	
>Transport Format Set	M		9.2.1.59	For the DL.	–	
>Frame Handling Priority	M		9.2.1.30		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
DSCH to Delete		<i>0..<max noofDS CHs></i>			YES	reject
>DSCH ID	M		9.2.1.27		–	
RL Information		<i>0..<max noofRLs ></i>			EACH	reject
>RL ID	M		9.2.1.53		–	
>DL Code Information		<i>0..<max noofDL Codes<</i>			–	
>>DL Scrambling Code	O		9.2.2.12		–	
>>FDD DL Channelisation Code Number	O		9.2.2.14		–	
>Maximum DL Power	O		9.2.1.21	DL Power	–	
>Minimum DL Power	O		9.2.1.21	DL Power	–	
>SSDT Indication	O		9.2.2.47		–	
>SSDT Cell Identity	C - SSDTIndON		9.2.2.44		–	

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>MaxnoofDLCodes</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		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Node B Communication Context ID	M		9.2.1.48		YES	reject
Transaction ID	M		9.2.1.62		–	
UL CCTrCH Information		0..<maxno of CCTrCHs>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>TFCI Coding	O		9.2.3.22		–	
>Puncture Limit	O		9.2.1.50		–	
>UL DPCH Information		0..<maxno of DPCHs>			GLOBAL	reject
>>DPCH ID	M		9.2.3.5		–	
>>TDD Channelisation Code	O		9.2.3.19		–	
>>Burst Type	O		9.2.3.2		–	
>>Midamble Shift	O		9.2.3.7		–	
>>Time Slot	O		9.2.3.23		–	
>>TDD Physical channel Offset	O		9.2.3.20		–	
>>Repetition Period	O		9.2.3.16		–	
>>Repetition Length	O		9.2.3.15		–	
>>TFCI Presence	O		9.2.1.57		–	
DL CCTrCH Information		0..<maxno of CCTrCHs>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>TFCI Coding	O		9.2.3.22		–	
>PunctureLimit			9.2.1.50		–	
>DL DPCH Information		0..<maxno of DPCHs>			GLOBAL	reject
>>DPCH ID	M		9.2.3.5		–	
>>TDD Channelisation Code	O		9.2.3.19		–	
>>Burst Type	O		9.2.3.2		–	
>>Midamble Shift	O		9.2.3.7		–	
>>Time Slot	O		9.2.3.23		–	
>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>Repetition Period	O		9.2.3.16		–	
>>Repetition Length	O		9.2.3.15		–	
>>TFCI Presence	O		9.2.1.57		–	

DCHs to Modify		<i>0..<max noofDC Hs></i>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
>CCTrCH ID	O		9.2.3.3	UL CCTrCH in which the DCH is mapped.	–	
>CCTrCH ID	O		9.2.3.3	DL CCTrCH in which the DCH is mapped	–	
>Transport Format Set	O		9.2.1.59	For the UL.	–	
>Transport Format Set	O		9.2.1.59	For the DL.	–	
>Frame Handling Priority	O		9.2.1.30		–	
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
DCHs to Add		<i>0..<max noofDC Hs></i>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
>Limited Power Increase	M		9.2.1.37		–	
>CCTrCH ID	M		9.2.3.3	UL CCTrCH in which the DCH is mapped.	–	
>CCTrCH ID	M		9.2.3.3	DL CCTrCH in which the DCH is mapped	–	
>DCH Combination Ind	O		9.2.1.19		–	
>Transport Format Set	M		9.2.1.59	For the UL.	–	
>Transport Format Set	M		9.2.1.59	For the DL.	–	
>Frame Handling Priority	M		9.2.1.30		–	
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>UL FP Mode	M		9.2.1.66		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
DCHs to Delete		<i>0..<max noofDC Hs></i>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
DSCH Information to modify		<i>0 .. <Maxno of DSCHs ></i>			GLOBAL	reject
>DSCH ID	M		9.2.1.27		–	
>CCTrCH ID	O		9.2.3.3	DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	O		9.2.1.59		–	
>Frame handling Priority	O		9.2.1.30		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
DSCH Information to add		<i>0 .. <Maxno of DSCHs</i>			GLOBAL	reject

		>				
>DSCH ID	M		9.2.1.27		–	
>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	M		9.2.1.59		–	
>Frame handling Priority	O		9.2.1.30		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
DSCH Information to delete		0 .. <Maxno of DSCHs >			GLOBAL	reject
>DSCH ID	M		9.2.1.27		–	
USCH Information to modify		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
>Transport Format Set	O		9.2.1.59		–	
>CCTrCH ID	O		9.2.3.2	UL CCTrCH in which the USCH is mapped	–	
USCH Information to add		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M		9.2.1.59		–	
USCH Information to delete		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
RL Information		0..1			YES	reject
>RL ID	M		9.2.1.53		–	
>Maximum Downlink Power	O		DL Power 9.2.1.21		–	
>Minimum Downlink Power	O		DL Power 9.2.1.21		–	

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

9.1.42 RADIO LINK RECONFIGURATION READY

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
RL Information Response		0..<max noofRLs >		Only one RL information response group for one group of combined RLs shall be present	EACH	ignore
>RL ID	M		9.2.1.53		–	
>DCH to be Added		0..<max noofDC Hs>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M		9.2.1.20		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>DCH to be Modified		0..<max noofDC Hs>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M		9.2.1.20		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>DSCH to be Setup		0..<Max noofDS CHs>			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>DSCH to be Modified		0..<Max noofDS CHs.			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH to be setup		0 .. <Maxno of USCHs >			GLOBAL	ignore
>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH to be modified		0 .. <Maxno of USCHs >			GLOBAL	ignore

>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
Criticality diagnostics	O		9.2.1.17		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

9.1.43 RADIO LINK RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
RLs Causing Reconfiguration Failure		<i>0..<max noofRLs ></i>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>Cause	M		9.2.1.6		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range Bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of RLs for a UE.

9.1.44 RADIO LINK RECONFIGURATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message type	M		9.2.1.46		YES	ignore
Node B Communication Context ID	M		9.2.1.48		YES	ignore
Transaction ID	M		9.2.1.62		–	
CFN	M		9.2.1.7		YES	ignore

9.1.45 RADIO LINK RECONFIGURATION CANCEL

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message type	M		9.2.1.46		YES	ignore
Node B Communication Context ID	M		9.2.1.48		YES	ignore
Transaction ID	M		9.2.1.62		–	

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		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Node B Communication Context ID	M		9.2.1.48		YES	reject
Transaction ID	M		9.2.1.62		–	
UL DPCH Information		0..1			YES	reject
>TFCS	O		9.2.1.58	For the UL.	–	
DL DPCH Information		0..1			YES	reject
>TFCS	O		9.2.1.58	For the DL.	–	
>TFCI Signalling Mode	O		9.2.2.50		–	
>PDSCH code mapping	O		9.2.2.25			
>PDSCH RL ID	O		RL ID 9.2.1.53			
DCHs to Modify		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
>Transport Format Set	O		9.2.1.59	For the UL.	–	
>Transport Format Set	O		9.2.1.59	For the DL.	–	
>Frame Handling Priority	O		9.2.1.30		–	
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
DCHs to Add		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
>DCH Combination Ind	O		9.2.1.19		–	
>Limited Power Increase	M		9.2.1.37		–	
>Transport Format Set	M		9.2.1.59	For the UL.	–	
>Transport Format Set	M		9.2.1.59	For the DL.	–	
>Frame Handling Priority	M		9.2.1.30		–	
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>UL FP mode	M		9.2.1.66		–	
>QE-Selector	M		9.2.2.36			
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
DCHs to Delete		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
DSCH to Modify		0..<maxn oofDSCH s>			YES	reject
>DSCH ID	M		9.2.1.27		–	
>Transport Format Set	O		9.2.1.59	For the DL.	–	
>Frame Handling Priority	O		9.2.1.30		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
DSCH to Add		0..<maxn oofDSCH			YES	reject

		s>				
>DSCH ID	M		9.2.1.27		–	
>Transport Format Set	M		9.2.1.59	For the DL.	–	
>Frame Handling Priority	M		9.2.1.30		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
DSCH to Delete		0..1			YES	reject
>DSCH ID	M		9.2.1.27		–	
Radio Link Information		0..<maxnoofRLs>			EACH	reject
>RL ID	M		9.2.1.53		–	
>Maximum DL Power	O		DL Power 9.2.1.53		–	
>Minimum DL Power	O		DL Power 9.2.1.53		–	

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.

9.1.46.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Node B Communication Context ID	M		9.2.1.48		YES	reject
Transaction ID	M		9.2.1.62		–	
UL CCTrCH Information		<i>0..<maxn oofCCTrCHs></i>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>Puncture Limit	O		9.2.1.50		–	
DL CCTrCH Information		<i>0..<maxn oofCCTrCHs></i>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>Puncture Limit	O		9.2.1.50		–	
DCHs to Modify		<i>0..<maxn oofDCHs ></i>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
>CCTrCH ID	O		9.2.3.3	UL CCTrCH in which the DCH is mapped.	–	
>CCTrCH ID	O		9.2.3.3	DL CCTrCH in which the DCH is mapped	–	
>Transport Format Set	O		9.2.1.59	For the UL.	–	
>Transport Format Set	O		9.2.1.59	For the DL.	–	
>Frame Handling Priority	O		9.2.1.30		–	
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
DCHs to Add		<i>0..<maxn oofDCHs ></i>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
>Limited Power Increase	M		9.2.1.37		–	
>CCTrCH ID	M		9.2.3.3	UL CCTrCH in which the DCH is mapped.	–	
>CCTrCH ID	M		9.2.3.3	DL CCTrCH in which the DCH is mapped	–	
>DCH Combination Ind	O		9.2.1.19		–	
>Transport Format Set	M		9.2.1.59	For the UL.	–	
>Transport Format Set	M		9.2.1.59	For the DL.	–	
>Frame Handling Priority	M		9.2.1.30		–	
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>UL FP Mode	M		9.2.1.66		–	
>ToAWS	M		9.2.1.61		–	

>ToAWE	M		9.2.1.60		–	
DCHs to Delete		0..<maxnoofDSCHs>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
DSCH Information to modify		0 .. <Maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M		9.2.1.27		–	
>CCTrCH ID	O		9.2.3.2	DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	O		9.2.1.59		–	
>Frame handling Priority	O		9.2.1.30		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
DSCH Information to add		0 .. <Maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M		9.2.1.29		–	
>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	M		9.2.1.59		–	
>Frame handling Priority	O		9.2.1.30		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
DSCH Information to delete		0 .. <Maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M		9.2.1.27		–	
USCH Information to modify		0 .. <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
>CCTrCH ID	O		9.2.3.2	UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	O		9.2.1.59		–	
USCH Information to add		0 .. <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
>CCTrCH ID	M		9.2.3.3	UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M		9.2.1.59		–	
USCH Information to delete		0 .. <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
RL Information		0..1			YES	reject
>RL ID	M		9.2.1.53		–	

>Maximum Downlink Power	0		DL Power 9.2.1.21		–	
>Minimum Downlink Power	0		DL Power 9.2.1.21		–	

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

9.1.47 RADIO LINK RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
RL Information Response		<i>0..<maxn oofRLs></i>		Only one RL information response group for one group of combined RLs shall be present	EACH	ignore
>RL ID	M		9.2.1.53		–	
>DCH to be Added		<i>0..<maxn oofDCHs ></i>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M		9.2.1.20		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>DCH to be Modified		<i>0..<maxn oofDCHs ></i>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M		9.2.1.20		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>DSCH to be Setup		<i>0..<Maxn oofDSCH s></i>			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>DSCH to be Modified		<i>0..<Maxn oofDSCH s></i>			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH to be setup		<i>0 .. <Maxn oofUSCHs></i>			GLOBAL	ignore
>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH to be modified		<i>0 .. <Maxn oofUSCHs></i>			GLOBAL	ignore
>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
Criticality diagnostics	O		9.2.1.17		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

9.1.48 RADIO LINK DELETION REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Node B Communication Context ID	M		9.2.1.48		YES	reject
Transaction ID	M		9.2.1.62		–	
RL Information		1..<maxnoofRLs>			EACH	notify
RL ID	M		9.2.1.53		–	

Range bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of radio links for one UE

9.1.49 RADIO LINK DELETION RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.50 DL POWER CONTROL REQUEST [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Node B Communication Context ID	M		9.2.1.48		YES	ignore
Transaction ID	M		9.2.1.62		–	
Power Adjustment Type	M		9.2.2.27		YES	ignore
DL Reference Power	C-Common		DL power 9.2.1.21		–	
DL Reference Power Information	C-Individual	1..<maxnoof RLs>			GLOBAL	ignore
>RL ID	M		9.2.1.53		–	
>DL Reference Power	M		DL power 9.2.1.21		–	
Max Adjustment Step	C-CommonOrIndividual		9.2.2.20			
Max. Adjustment Period	C-CommonOrIndividual		9.2.2.19			

Condition	Explanation
Common	This IE is present only "Adjustment Type " equals to 'Common'
Individual	This IE is present only "Adjustment Type " equals to 'Individual'
CommonOrIndividual	This IE is present only "Adjustment Type " equals to 'Common' or 'Individual'

Range Bound	Explanation
MaxnoofRLs	Maximum number of Radio Links for a UE

9.1.51 DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Node B Communication Context Id	M		9.2.1.48		YES	reject
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	reject
Dedicated Measurement Object Type	M		9.2.1.22		YES	reject
CHOICE <i>Dedicated Measurement Object Type</i>					YES	ignore
>"RL"					YES	reject
>>RL Information		1..<maxnoofRLs>			EACH	reject
>>>RL ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5		–	
>"RLS"						
>>RL Set Information		1..<maxnoofRLSets>				
>>>RL Set ID	M		9.2.2.39			
Dedicated Measurement Type	M		9.2.1.23		YES	reject
Measurement Filter Coefficient	O		9.2.1.41		YES	reject
Report Characteristics	M		9.2.1.51		YES	reject

Range	Explanation
<i>MaxnoofRLs</i>	Maximum number of individual RL's a measurement can be started on.
<i>MaxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on.

9.1.52 DEDICATED MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context Id	M		9.2.1.18		YES	ignore
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>				Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>"RL" or "ALL RL"					YES	ignore
>>RL Information		1..<maxnoofRLs>			EACH	ignore
>>>RL-ID ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5		–	
>>>Dedicated Measurement Value	M		9.2.1.24			
>"RLS" or "ALL RLS"					YES	ignore
>>RL Set Information		1..<maxnoofRLSets>			–	
>>>RL Set ID	M		9.2.2.39			
>>>Dedicated Measurement Value	M		9.2.1.24			
CFN	O		9.2.1.7	Dedicated Measurement Time Reference	YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range	Explanation
<i>MaxnoofRLs</i>	Maximum number of individual RL's the measurement can be started on.
<i>MaxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on.

9.1.53 DEDICATED MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context Id	M		9.2.1.18		YES	ignore
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.54 DEDICATED MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
CRNC Communication Context Id	M		9.2.1.18		YES	ignore
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>				Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>"RL" or "ALL RL"					YES	ignore
>>RL Information		1..<maxnoofRLs>			EACH	ignore
>>>RL- <i>id</i> ID	M		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5		–	
>>>Dedicated Measurement Value	M		9.2.1.24		–	
>"RLS" or "ALL RLS"						
>>RL Set Information		1..<maxnoofRLSets>				
>>>RL Set <i>id</i> ID	M		9.2.1.39			
>>>Dedicated Measurement Value	M		9.2.1.24			
CFN	O		9.2.1.7	Dedicated Measurement Time Reference	YES	ignore

Range	Explanation
<i>MaxnoofRLs</i>	Maximum number of individual RL's the measurement can be started on.
<i>MaxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on.

9.1.55 DEDICATED MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Node B Communication Context Id	M		9.2.1.48		YES	ignore
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	ignore

9.1.56 DEDICATED MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
CRNC Communication Context Id	M		9.2.1.18		YES	ignore
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	ignore
Cause	M		9.2.1.6		YES	ignore

9.1.57 RADIO LINK FAILURE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
CHOICE <i>Reporting Object</i>	M			Object for which the Failure shall be reported.		
>"RL"						
>>RL Information		1 to <MaxnoofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
>"RL Set"						
>>RL Set Information		1 to <MaxnoofRLSets>				
>>>RL Set ID	M		9.2.2.39			
>>>Cause	M		9.2.1.6			

Range bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of RLs for one UE.
<i>MaxnoofRLSets</i>	Maximum number of RL Sets for one UE.

9.1.58 RADIO LINK RESTORE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
CHOICE <i>Reporting Object</i>	M			Object for which the Restoration shall be reported.		
>"RL"						
>>Radio Link Information		1 to <MaxnoofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>"RL Set"						
>>RL Set Information		1 to <MaxnoofRLSets>				
>>>RL Set ID	M		9.2.2.39			

Range bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of RLs for one UE.
<i>MaxnoofRLSets</i>	Maximum number of RL Sets for one UE.

9.1.59 COMPRESSED MODE PREPARE [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Node B communication context ID	M		9.2.1.48		YES	reject
Transaction ID	M		9.2.1.62		–	
CM Pattern Information		1 to 8		Range defined ref. [4]		
>CFN Offset	M		9.2.1.8			
>TGP1	M		Gap Period 9.2.2.17	Refer to [4]	YES	reject
>TGP2	O		Gap Period 9.2.2.17	Refer to [4]	YES	reject
>TGL	M		9.2.2.52		YES	reject
>TGD	M		9.2.2.51		YES	reject
>PD	M		9.2.2.24		YES	reject
>UL/DL compressed mode selection	M		9.2.2.54		YES	reject
>Compressed mode method	M		9.2.2.4		YES	reject
>Gap Position Mode	M		9.2.2.18		YES	reject
>SN	C-Flex		TimeSlot 9.2.3.23		YES	reject
>Downlink Frame Type	M		9.2.2.11		YES	reject
>Scrambling Code Change	C-SF/2		9.2.2.41		YES	reject
>Power Control Mode	M		9.2.2.28		YES	reject
>Power Resume Mode	M		9.2.2.30		YES	reject
>UL delta SIR	M		9.2.2.55		YES	reject
>UL delta SIR after	M		9.2.2.56		YES	reject

Condition	Explanation
Flex	This IE is present only if "Gap position Mode" equals to 'flexible'.
SF/2	This IE is present only if Compressed Mode Method equals to SF/2

9.1.60 COMPRESSED MODE READY [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC communication context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.61 COMPRESSED MODE COMMIT [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Node B communication context ID	M		9.2.1.48		YES	ignore
Transaction ID	M		9.2.1.62		–	
CFN	M		9.2.1.7		YES	ignore

9.1.62 COMPRESSED MODE FAILURE [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC communication context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.63 COMPRESSED MODE CANCEL [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		-	
Message Type	M		9.2.1.46		YES	reject
Node B communication context ID	M		9.2.1.48		YES	ignore
Transaction ID	M		9.2.1.62		-	

9.1.64 ERROR INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.45		-	
Message Discriminator	M		9.2.1.46		YES	ignore
CRNC Communication Context Id	C-ifUL		9.2.1.18		-	
Node B Communication Context Id	C-ifDL		9.2.1.48		YES	ignore
Transaction Id	M		9.2.1.62		YES	ignore
Cause	C-ifalone		9.2.1.6		YES	ignore
Criticality diagnostics	C-ifalone		9.2.1.17		YES	ignore

Condition	Explanation
IfDL	This IE is only present when message is transmitted by the CRNC on a signalling bearer corresponding to a communication control port.
IfUL	This IE is only present when message is transmitted by the Node B on a signalling bearer corresponding to a communication control port.
Ifalone	At least either of Cause IE or Criticality Diagnostics IE shall be present.

9.1.65 PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		-	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		-	
C-ID	M		9.2.1.9		YES	reject
PDSCH Sets to add		<i>0..<maxnoof PDSCHSets ></i>			GLOBAL	reject
>PDSCH Set Id	M		9.2.3.11		-	
>PDSCH Information		<i>0..<maxnoof PDSCH></i>			GLOBAL	reject
>>PDSCH ID	M		9.2.3.10		-	
>>TDD Channelisation Code	M		9.2.3.19		-	

>>Burst Type	M		9.2.3.2		-	
>>Midamble Shift	M		9.2.3.7		-	
>>Time Slot	M		9.2.3.23		-	
>>Repetition Period	M		9.2.3.16		-	
>>TDD Physical Channel Offset	O		9.2.3.20		-	
>>Repetition Length	O		9.2.3.15		-	
>>TFCI Presence	M		9.2.1.57		-	
PDSCH Sets to Modify		<i>0..<maxnoof PDSCHSets ></i>			GLOBAL	reject
>PDSCH Set Id	M		9.2.3.11		-	
>PDSCH Information		<i>0..<maxnoof PDSCH></i>			GLOBAL	reject
>>PDSCH ID	M		9.2.3.10		-	
>>TDD Channelisation Code	M		9.2.3.19		-	
>>Burst Type	M		9.2.3.2		-	
>>Midamble Shift	M		9.2.3.7		-	
>>Time Slot	M		9.2.3.23		-	
>>Repetition Period	M		9.2.3.16		-	
>>TDD Physical Channel Offset	O		9.2.3.20		-	
>>Repetition Length	O		9.2.3.15		-	
>>TFCI Presence	M		9.2.1.57		-	
PDSCH Sets to Delete		<i>0..<maxnoof PDSCHSets ></i>			GLOBAL	reject
>PDSCH Set Id	M		9.2.3.11		-	
PUSCH Sets to add		<i>0..<maxnoof PUSCHSets ></i>			GLOBAL	reject
>PUSCH Set Id	M		9.2.3.13		-	
>PUSCH Information		<i>0..<maxnoof PUSCH></i>			GLOBAL	reject
>>PUSCH ID	M		9.2.3.12		-	
>>TDD Channelisation Code	M		9.2.3.19		-	
>>Burst Type	M		9.2.3.2		-	
>>Midamble Shift	M		9.2.3.7		-	
>>Time Slot	M		9.2.3.23		-	
>>Repetition Period	M		9.2.3.16		-	
>>TDD Physical Channel Offset	O		9.2.3.20		-	
>>Repetition Length	O		9.2.3.15		-	
>>TFCI Presence	M				-	
PUSCH Sets to Modify		<i>0..<maxnoof PUSCHSets ></i>			GLOBAL	reject
>PUSCH Set Id	M		9.2.3.13		-	
>PUSCH Information		<i>0..<maxnoof PUSCH></i>			GLOBAL	reject
>>PUSCH ID	M		9.2.3.12		-	
>>TDD Channelisation Code	M		9.2.3.19		-	
>>Burst Type	M		9.2.3.2		-	
>>Midamble Shift	M		9.2.3.7		-	
>>Time Slot	M		9.2.3.23		-	
>>Repetition Period	M		9.2.3.16		-	

>>TDD Physical Channel Offset	O		9.2.3.20		-	
>>Repetition Length	O		9.2.3.15		-	
>>TFCI Presence	M		9.2.1.57		-	
PUSCH Sets to Delete		<i>0..<maxnoof PUSCHSets ></i>			GLOBAL	reject
>PUSCH Set Id	M		9.2.3.13		-	

Range bound	Explanation
<i>Maxnoof PDSCH Sets</i>	Maximum number of PDSCH Sets in a cell.
<i>Maxnoof PDSCH</i>	Maximum number of PDSCH in a cell.
<i>Maxnoof PUSCH Sets</i>	Maximum number of PUSCH Sets in a cell.
<i>Maxnoof PUSCH</i>	Maximum number of PUSCH in a cell.

9.1.66 PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		-	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		-	
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.1.67 PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		-	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		-	
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.2 Information Element Functional Definition and Contents

9.2.1 Common parameters

9.2.1.1 Add/Delete Indicator

The add/delete indicator shall notify the RNC whether the associated resource has been added to or removed from the Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Add/Delete Indicator			ENUMERATED(Add, Delete)	

9.2.1.2 Availability Status

The availability status is used to indicate more detailed information of the availability of the resource. In accordance with [6], following values are defined. If the value of this attribute is an empty set, this implies that none of the status conditions described in [6] are present.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Availability Status			ENUMERATED (empty, in test, failed, power off, off line, off duty, dependency, degraded, not installed, log full, ...)	

9.2.1.3 BCCH Modification Time

Indicates the time after which the new system information shall be applied on BCCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
BCCH Modification Time			Integer (0, 2, 4, ...,4094)	All even SFN values are allowed The tabular description is a direct copy from TS 25.331 CR 078

9.2.1.4 Binding ID

The Binding ID is the identifier of a user data stream. It is allocated at Node B and it is unique for each transport bearer under establishment to/from the Node B. The length of this parameter is variable.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Binding ID			Octetstring (1..4,...)	

9.2.1.5 Blocking Priority Indicator

The Blocking priority indicator shall indicate the immediacy with which a resource should be blocked from use. The following priority classes shall be supported in the Blocking priority indicator.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Blocking Priority Indicator			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.

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, 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)	

9.2.1.7 CFN

Connection Frame Number for the radio connection, see ref. [25.402].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CFN			Integer (0..255)	

9.2.1.8 CFN Offset

Activation time for the compressed mode pattern.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>CFN Offset</u>			<u>Integer (0..255)</u>	<u>Number of frames between CFN and the CM pattern activation.</u>

9.2.1.89 C-ID

The C-ID (Cell identifier) is the identifier of a cell in one RNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
C-ID			INTEGER (0...65535)	

9.2.1.910 Common Measurement Object Type

The Common Measurement Object type indicates the type of object that the measurement is to be performed on.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Measurement Object Type			ENUMERATED (CELL, RACH,...)	

9.2.1.1011 Common Measurement Type

The Common Measurement Type identifies which measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Measurement Type			ENUMERATED (RSSI, Transmitted Carrier Power, Acknowledged RA tries, Timeslot ISCP,...)	

9.2.1.112 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..63)	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.

9.2.1.4213 Common Physical Channel Id

Common Physical Channel Id is the unique identifier for one common physical channel within a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Common Physical Channel ID			Integer(0..255)	

9.2.1.4314 Common Transport Channel Id

Common Transport Channel Id is the unique identifier for one common transport channel within a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Common Transport Channel ID			Integer(0..255)	

9.2.1.4415 Communication Control Port ID

A Communication Control Port corresponds to one signalling bearer between the RNC and Node B for the control of Node B Communication Contexts. Node B may have multiple Communication Control Ports (one per Traffic Termination Point). The Communication Control Port is selected at creation of the Node B Communication Context. The Communication Control Port ID is the identifier of the Communication Control Port.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Communication Control Port ID			INTEGER(0..65535)	

9.2.1.4516 Configuration Generation ID

The Configuration Generation ID describes the generation of the configuration of logical resources in a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Configuration Generation ID			Integer(0..255)	Value '0' means "No configuration". At possible wraparound of the ID counter in CRNC the value '0' shall not be used.

9.2.1.4617 Criticality diagnostics

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Criticality Diagnostics				
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)	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	
Information Element Criticality Diagnostics		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. The value for maxnooferrors is 256.

9.2.1.4718 CRNC Communication Context ID

The CRNC Communication Context ID is the identifier of the Communication Context in the CRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CRNC Communication Context ID			INTEGER (0..2^20 -1)	

9.2.1.1819 DCH Combination Indicator

The DCH Combination Indicator is used to indicate the multiplexing of more than one DCH on transport bearer. The value should be unique for each group of coordinated DCH's per request message.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DCH Combination Ind			INTEGER (0..255)	

9.2.1.1920 DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DCH ID			INTEGER (0..255)	

9.2.1.2021 DL Power

The DL Power IE indicates a power level relative to the [FDD-primary CPICH power] [TDD-primary CCPCH power] configured in a cell [FDD-If referred to a DPCH, it indicates the power of the DPDCH symbols].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL Power			Enumerated(-35..+15dB)	Step 0.1dB

9.2.1.2422 Dedicated Measurement Object Type

The Dedicated Measurement Object type indicates the type of object that the measurement is to be performed on.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dedicated Measurement Object Type			ENUMERATED (RL, RLS, ALL RL, ALL RLS,...)	

9.2.1.2223 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,...)	RSCP is used by TDD only.

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

9.2.1.2324 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
Dedicated measurement Value				
>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

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

9.2.1.25 Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Diversity Control Field</u>			<u>ENUMERATED(May, Must, Must not)</u>	

9.2.1.26 Diversity Indication

The Diversity Indication indicates if the RL has been or has not been combined with another RL.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Diversity Indication</u>			<u>ENUMERATED(Combined, not combined)</u>	

9.2.1.2427 DSCH ID

The DSCH ID uniquely identifies a DSCH within a Node B Communication Context.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DSCH ID			INTEGER (0..255)	

9.2.1.2528 DSCH Transport Format Set

This parameter defines the transport format set for DSCH.

Note: the parameter need to be defined. It may correspond to the DL TFS defined for DCH

9.2.1.2629 DSCH Transport Format Combination Set

This parameter defines the transport format combination set for DSCH.

Note: to be defined. Each DSCH TFCI also indicates the code to be used

Note: the parameter need to be defined. It may correspond to the DL TFS defined for DCH

9.2.1.2730 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH/DSCH for temporary restriction of the allocated resources due overload reason.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Frame Handling Priority			INTEGER (0..15)	0=lower priority, 15=higher priority

9.2.1.2831 Frame Offset

Frame Offset is the required offset between the dedicated channel downlink transmission frames (CFN, Connection Frame Number) and the broadcast channel frame offset (Cell Frame Number). The Frame_offset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and least significant 8 bits of SFN (System Frame Number) on Uu. The Frame Offset is UE and cell specific.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Frame Offset			INTEGER (0..255)	Frames

9.2.1.2932 IB_SG_DATA

Segment which is part of an Information Block.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IB SG DATA			Bit String	"SIB data" in segment as defined in ref:25.331.

9.2.1.3033 IB_SG_POS

First position of an Information Block segment in the SFN cycle (IB_SG_POS < IB_SG_REP).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IB SG POS			INTEGER (0.. 2046)	Only even positions allowed. Reference TS 25.331

9.2.1.3434 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			INTEGER (4, 8, 16, 32, 64, 128, 256, 512, 1024,2048)	Repetition period for the IB segment in frames

9.2.1.3235 IB Type

The IB type identifies a specific system information block.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IB Type			Enumerated (MIB, SIB1, SIB2 SIB3, SIB4, SIB5, SIB6, SIB7, SIB8, SIB9, SIB10, SIB11, SIB12, SIB13, SIB13.1 SIB13.2, SIB13.3, SIB13.4, SIB14, ...)	

9.2.1.3336 Indication Type

The indication type shall indicate the category of a failure with respect to its impact on the logical resources supported at Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Indication Type			ENUMERATED (No Failure, Service Impacting, ...)	Service Impacting – The failure has impacted on the logical resources supported at Node B.

9.2.1.37 Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, Node B shall not increase the DL power of the RL if it exceeds by more than *Power Raise Limit* dB the averaged DL power used in the last *DL power averaging window size* timeslots of the same RL.

Power Raise Limit and *DL power averaging window size* are parameters configured in the Node B.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Limited Power Increase</u>			<u>ENUMERATED(Used, Not used)</u>	

9.2.1.3438 Local Cell ID

The local cell ID represents resources in Node B that can be used for the configuration of a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Local Cell ID			INTEGER(0 ...26843545 5)	

9.2.1.3539 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 1 dBm

9.2.1.3640 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, 1,2 ..50)	Unit dBm Granularity 1 dB

9.2.1.41 Measurement Filter Coefficient

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

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Measurement Filter Coefficient</u>			<u>INTEGER(1..256)</u>	

9.2.1.3742 Measurement ID

The Measurement Id uniquely identifies any measurement per (Node B- or communication) control port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement ID			Integer(0 .. 2^20-1)	

9.2.1.43 Measurement Increase/Decrease Threshold

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

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

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

9.2.1.44 Measurement Threshold

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

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

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

9.2.1.39 Report Characteristics

The report characteristics, defines how the reporting shall be performed.

IE/Group-Name	Presence	Range	IE Type and Reference	Semantics-Description
Report characteristics				
>Report characteristics type			ENUMERATED(On Demand, Periodic, Event A, Event B, Event C, Event D, Event E, Event F,...)	
>Periodic Report Information	C—Periodic			
>>Report Periodicity	M		ENUMERATED (10ms...1min) step 10ms, (1min...1hr) step 1min	The frequency with which the Node-B shall send measurement reports. First working assumption!
>Event A	C—Event A			
>>Measurement Threshold	M		Measurement Threshold	The threshold for which the Node-B shall trigger a measurement report.
>>Measurement Hysteresis Time	O		ENUMERATED (10ms...1min) step 10ms,...	
>Event B	C—Event B			
>>Measurement Threshold	M		Measurement Threshold	The threshold for which the Node-B shall trigger a measurement report.
>>Measurement Hysteresis Time	O		ENUMERATED (10ms...1min) step 10ms,...	
>Event C	C—Event C			
>>Measurement Increase/Decrease Threshold	M		Measurement Increase/Decrease Threshold	
>>Measurement Change Time	M		ENUMERATED (10ms...1min) step 10ms,...	The time the measurement entity shall rise on (in ms), in order to trigger a measurement report.
>Event D	C—Event D			
>>Measurement Increase/Decrease Threshold	M		Measurement Increase/Decrease Threshold	
>>Measurement Change Time	M		ENUMERATED (10ms...1min) step 10ms,...	The time the measurement entity shall fall (in ms), in order to trigger a measurement report.
>Event E	C—Event			

	E			
>>Measurement Threshold 1	M		Measurement Threshold	
>>Measurement Threshold 2	⊖		Measurement Threshold	
>>Measurement Hysteresis Time	⊖		ENUMERATED (10ms...1min) step 10ms,...	The hysteresis time in ms
>>Report Periodicity	⊖		ENUMERATED (10ms...1min) step 10ms, (1min...1hr) step 1min	The frequency with which the Node-B shall send measurement reports.
>Event F	C-Event F			
>>Measurement Threshold 1	M		Measurement Threshold	
>>Measurement Threshold 2	⊖		Measurement Threshold	
>>Measurement Hysteresis Time	⊖		ENUMERATED (10ms...1min) step 10ms,...	The hysteresis time in ms
>>Report Periodicity	⊖		ENUMERATED (10ms...1min) step 10ms, (1min...1hr) step 1min	The frequency with which the Node-B shall send measurement reports.

Condition	Explanation
C-Periodic	Valid if Report Characteristics Type IE indicates "periodic"
C-Event A	Valid if Report Characteristics Type IE indicates "Event A"
C-Event B	Valid if Report Characteristics Type IE indicates "Event B"
C-Event C	Valid if Report Characteristics Type IE indicates "Event C"
C-Event D	Valid if Report Characteristics Type IE indicates "Event D"
C-Event E	Valid if Report Characteristics Type IE indicates "Event E"
C-Event F	Valid if Report Characteristics Type IE indicates "Event F"

9.2.1.4045 Message discriminator

This field is used to discriminate between Dedicated NBAP and Common NBAP messages.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Message Discriminator			ENUMERATED (Common, Dedicated)	

9.2.1.4146 Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Message Type				
>Procedure ID		1		
>>Procedure Code			ENUMERATED (COMMON TRANSPORT CHANNEL SETUP, COMMON TRANSPORT CHANNEL RECONFIGURATION, COMMON TRANSPORT CHANNEL DELETION, BLOCK RESOURCE, UNBLOCK RESOURCE, AUDIT REQUIRED, AUDIT, COMMON MEASUREMENT INITIATION, COMMON MEASUREMENT REPORTING, COMMON MEASUREMENT TERMINATION, COMMON MEASUREMENT TERMINATION FAILURE, CELL SETUP, CELL RECONFIGURATION, CELL DELETION, RESOURCE STATUS INDICATION, SYSTEM INFORMATION UPDATE, RL SETUP, RL ADDITION, SYNCHRONISED RL RECONFIGURATION PREPARATION, SYNCHRONISED RL RECONFIGURATION COMMIT, SYNCHRONISED RL RECONFIGURATION CANCELLATION, UNSYNCHRONISED RL RECONFIGURATION, RL DELETION, DL POWER CONTROL, DEDICATED MEASUREMENT INITIATION, DEDICATED MEASUREMENT REPORTING, DEDICATED MEASUREMENT TERMINATION, DEDICATED MEASUREMENT TERMINATION FAILURE, RL FAILURE, RL RESTORATION, COMPRESSED MODE PREPARATION, COMPRESSED MODE COMMIT, COMPRESSED MODE CANCELLATION ERROR INDICATION, ...)	
>>Dmode	M		ENUMERATED (FDD, TDD, Common)	Common = common to FDD and TDD.
>Type of Message	M		ENUMERATED (Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.1.4247 Minimum Spreading Factor

This parameter indicates the minimum spreading factor supported at a cell within the Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Minimum Spreading Factor			Enumerated(4, 16, 32, 64, 128, 256, 512)	

9.2.1.4348 Node B Communication Context ID

The Node B Communication Context ID is the identifier of the Communication Context in the Node B, it corresponds to the dedicated resources which are necessary for an UE using one or more dedicated channels in a given Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Node B Communication Context ID			INTEGER (0..2 ²⁰ -1)	2 ²⁰ -1 is reserved value to indicate all the existing and future Node B communication contexts that can be reached by the communication control port (All NBCC).

9.2.1.4449 Payload CRC presence Indicator

This parameter indicates whether FP payload 16 bit CRC is used or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Payload CRC Presence Indicator			ENUMERATED (CRC Included, CRC not included)	

9.2.1.4550 Puncture limit

The Puncture limit limits the amount of puncturing that can be applied in order to minimise the number of dedicated physical channels.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Puncture limit			INTEGER (0..15)	0: 40% 1: 44 % ... 14: 96% 15: 100%

9.2.1.51 Report Characteristics

The report characteristics, defines how the reporting shall be performed.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE Type and Reference</u>	<u>Semantics Description</u>
<u>Report characteristics</u>				
>Report characteristics type			ENUMERATED(On Demand, Periodic, Event A, Event B, Event C, Event D, Event E, Event F,...)	
>Periodic Report Information	C – Periodic			
>>Report Periodicity	M		ENUMERATED (10ms...1min) step 10ms, (1min...1hr) step 1min	The frequency with which the Node B shall send measurement reports. First working assumption!
>Event A	C – Event A			
>>Measurement Threshold	M		Measurement Threshold	The threshold for which the Node B shall trigger a measurement report.
>>Measurement Hysteresis Time	O		ENUMERATED (10ms...1min) step 10ms,...	
>Event B	C – Event B			
>>Measurement Threshold	M		Measurement Threshold	The threshold for which the Node B shall trigger a measurement report.
>>Measurement Hysteresis Time	O		ENUMERATED (10ms...1min) step 10ms,...	
>Event C	C – Event C			
>>Measurement Increase/Decrease Threshold	M		Measurement Increase/Decrease Threshold	
>>Measurement Change Time	M		ENUMERATED (10ms...1min) step 10ms,...	The time the measurement entity shall rise on (in ms), in order to trigger a measurement report.
>Event D	C – Event D			
>>Measurement Increase/Decrease Threshold	M		Measurement Increase/Decrease Threshold	
>>Measurement Change Time	M		ENUMERATED (10ms...1min) step 10ms,...	The time the measurement entity shall fall (in ms), in order to trigger a measurement report.
>Event E	C – Event			

	<u>E</u>			
<u>>>Measurement Threshold 1</u>	<u>M</u>		<u>Measurement Threshold</u>	
<u>>>Measurement Threshold 2</u>	<u>Q</u>		<u>Measurement Threshold</u>	
<u>>>Measurement Hysteresis Time</u>	<u>Q</u>		<u>ENUMERATED (10ms...1min) step 10ms...</u>	<u>The hysteresis time in ms</u>
<u>>>Report Periodicity</u>	<u>Q</u>		<u>ENUMERATED (10ms...1min) step 10ms, (1min...1hr) step 1min</u>	<u>The frequency with which the Node B shall send measurement reports.</u>
<u>>Event F</u>	<u>C – Event F</u>			
<u>>>Measurement Threshold 1</u>	<u>M</u>		<u>Measurement Threshold</u>	
<u>>>Measurement Threshold 2</u>	<u>Q</u>		<u>Measurement Threshold</u>	
<u>>>Measurement Hysteresis Time</u>	<u>Q</u>		<u>ENUMERATED (10ms...1min) step 10ms...</u>	<u>The hysteresis time in ms</u>
<u>>>Report Periodicity</u>	<u>Q</u>		<u>ENUMERATED (10ms...1min) step 10ms, (1min...1hr) step 1min</u>	<u>The frequency with which the Node B shall send measurement reports.</u>

<u>Condition</u>	<u>Explanation</u>
<u>C-Periodic</u>	<u>Valid if Report Characteristics Type IE indicates "periodic"</u>
<u>C-Event A</u>	<u>Valid if Report Characteristics Type IE indicates "Event A"</u>
<u>C-Event B</u>	<u>Valid if Report Characteristics Type IE indicates "Event B"</u>
<u>C-Event C</u>	<u>Valid if Report Characteristics Type IE indicates "Event C"</u>
<u>C-Event D</u>	<u>Valid if Report Characteristics Type IE indicates "Event D"</u>
<u>C-Event E</u>	<u>Valid if Report Characteristics Type IE indicates "Event E"</u>
<u>C-Event F</u>	<u>Valid if Report Characteristics Type IE indicates "Event F"</u>

9.2.1.4652 Resource Operational State

The resource operational state is used to indicate the current operational state of the associated resource following a Node B failure.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Resource Operational State			ENUMERATED(Enabled, Disabled)	When a resource is marked as disabled, then its child resources are implicitly disabled. Cell Resource hierarchy can be referred to [6].

9.2.1.47 Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, Node B shall not increase the DL power of the RL if it exceeds by more than *Power_Raise_Limit* dB the averaged DL power used in the last *DL_power_averaging_window_size* timeslots of the same RL.

Power_Raise_Limit and *DL_power_averaging_window_size* are parameters configured in the Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Limited Power Increase			ENUMERATED(Used, Not used)	

9.2.1.4853 RL ID

The RL ID is the unique identifier for one RL associated with a UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RL ID			INTEGER (0..31)	

9.2.1.4954 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)	

9.2.1.5055 SIB Originator

Indicates if the Node B shall fill in the SIB information or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SIB Originator			Enumerated(Node B, CRNC)	

9.2.1.5456 Shutdown Timer

The shutdown timer shall indicate the length of time available to the CRNC to perform the block of a resource when a Normal priority block is requested.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Shutdown Timer			INTEGER(1..3600)	Value in seconds

9.2.1.5257 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TFCI presence			ENUMERATED (Present, not present)	

9.2.1.5358 TFCS (Transport Format Combination Set)

The Transport Format Combination Set is defined as a set of Transport Format Combinations on a Coded Composite Transport Channel. It is the allowed Transport Format Combinations of the corresponding Transport Channels. The DL Transport Format Combination Set is applicable for DL Transport Channels.

[FDD - Where the UE is assigned access to one or more DSCH transport channels then the UTRAN has the choice of two methods for signalling the mapping between TFCI(field 2) values and the corresponding TFC:

Method #1 - TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given transport format combination (value of CTFC_DSCH). The CTFC_DSCH value specified in the first group applies for all values of TFCI(field 2) between 0 and the specified 'Max TFCI(field2) value'. The CTFC_DSCH value specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field2) value' specified in the last group plus one and the specified 'Max TFCI(field2) value' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value used by the UE in constructing its mapping table starting at the largest value reached in the previous group plus one.

Method #2 - Explicit

The mapping between TFCI(field 2) value and CTFC_DSCH is spelt out explicitly for each value of TFCI (field2)

]

[FDD - Where the UE is assigned access to one or more DSCH transport channels then the UTRAN has the choice of two methods for signalling the mapping between TFCI(field 2) values and the corresponding TFC:

Method #1 - TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given transport format combination (value of CTFC_DSCH). The CTFC_DSCH value specified in the first group applies for all values of TFCI(field 2) between 0 and the specified 'Max TFCI(field2) value'. The CTFC_DSCH value specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field2) value' specified in the last group plus one and the specified 'Max TFCI(field2) value' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value used by the UE in constructing its mapping table starting at the largest value reached in the previous group plus one.

Method #2 - Explicit

The mapping between TFCI(field 2) value and CTFC_DSCH is spelt out explicitly for each value of TFCI (field2)

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE <i>DSCH</i>				
> <i>No split in TFCI</i>				This choice is made if : a) The TFCS refers to the uplink OR b) The mode is FDD and none of the Node B communication contexts are assigned any DSCH transport channels OR c) The mode is TDD
>>TFCS		1 to <maxnoofTFCs>		The first instance of the parameter corresponds to TFC zero, the second to 1 and so on.
>>>CTFC	M		INTEGER(0..MaxCTFC-1)	Integer number calculated according to TS 25.331
>>>CHOICE Gain Factors	C-PhysChan			
>>>>Signalled Gain Factors				
>>>>>Gain Factor β_c	M		Integer (0..15)	For UL DPCCCH or control part of PRACH in FDD; mapping in accordance to TS 25.213
>>>>>Gain Factor β_D	M		Integer (0..15)	For UL DPDCH or data part of PRACH in FDD; mapping in accordance to TS 25.213
>>>>>Reference TFC nr	O		Integer (0..15)	If this TFC is a reference TFC, this IE indicates the reference number
>>>>>Computed Gain Factors				
>>>>>Reference TFC nr	M		Integer (0..15)	Indicates the reference TFC to be used to calculate the gain factors for this TFC
> <i>There is a split in the TFCI</i>				This choice is made if : a) The TFCS refers to the downlink AND b) The mode is FDD and one of the Node B communication contexts is assigned one or more DSCH transport channels
>>Transport format combination_DCH		1 to <MaxTFCI_1_Comb>		The first instance of the parameter <i>Transport format combination_DCH</i> corresponds to TFCI (field 1) = 0, the second to TFCI (field 1) = 1 and so on.
>>>CTFC_DCH	M		Integer(0..MaxCTFC_DCH-1)	Integer number calculated according to TS 25.331. The calculation of CTFC ignores any DSCH transport channels which may be assigned
>>Choice Signalling method				
>>>TFCI range				
>>>>TFC mapping on DSCH		1 to <MaxNoTFCIGroups>		
>>>>>Max TFCI(field2) value	M		Integer(1..1023)	This is the Maximum value in the range of TFCI(field2) values for which the specified CTFC_DSCH applies
>>>>>>CTFC_DSCH	M		Integer(0..MaxCTFC_DSCH-1)	Integer number calculated according to TS 25.331. The calculation of CTFC ignores any DCH transport channels which

				may be assigned
>>>Explicit				
>>>>Transport format combination_DSCH		1 to <MaxTFCI_2_Combs>		The first instance of the parameter <i>Transport format combination_DSCH</i> corresponds to TFCI (field2) = 0, the second to TFCI (field 2) = 1 and so on.
>>>>>CTFC_DSCH	M		Integer(0..MaxCTFC_DSCH-1)	Integer number calculated according to TS 25.331. The calculation of CTFC ignores any DCH transport channels which may be assigned

Condition	Explanation
PhysChan	The choice shall be present if the TFCS concerns a UL DPCH or PRACH channel in FDD, not when the TFCS is used for other physical channels.

Range bound	Explanation
MaxnoofTFCs	The maximum number of Transport Format Combinations (1024).
MaxTFCI_1_Combs	Maximum number of TFCI (field 1) combinations (given by 2 raised to the power of the length of the TFCI (field 1))
MaxTFCI_2_Combs	Maximum number of TFCI (field 2) combinations (given by 2 raised to the power of the length of the TFCI (field 2))
MaxNoTFCIGroups	Maximum number of groups, each group described in terms of a range of TFCI(field 2) values for which a single value of CTFC_DSCH applies
MaxCTFC	Maximum number of the CTFC value is calculated according to the following: $\sum_{i=1}^I (L_i - 1)P_i$ with the notation according to TS 25.331
MaxCTFC_DCH	Maximum value of CTFC_DCH is calculated according to the following: $\sum_{i=1}^I (L_i - 1)P_i$ with the notation according to TS25.331 where only the DCH transport channels are taken into account in the calculation.
MaxCTFC_DSCH	Maximum value of CTFC_DSCH is calculated according to the following: $\sum_{i=1}^I (L_i - 1)P_i$ with the notation according to TS 25.331 where only the DSCH transport channels are taken into account in the calculation..

9.2.1.59 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
Transport Format Set				
Dynamic Transport Format Information		1 to <maxTFcount>		
>Number of Transport blocks	<u>M</u>		<u>INTEGER (0..4095)</u>	
>Transport Block Size	<u>C – Blocks</u>		<u>INTEGER (1..5000)</u>	<u>Bits</u>
>CHOICE mode				
>>TDD				
>>>Transmission time interval	<u>C-TTIdynamic</u>	1 _____ to <maxTTIcount>	<u>Enumerated(10, 20, 40, 80)</u>	
Semi-static Transport Format Information				
>Transmission time interval	<u>C-TTIsemistatic</u>		<u>ENUMERATED (10, 20, 40, 80)</u>	<u>msec</u>
>Type of channel coding	<u>M</u>		<u>ENUMERATED (No coding, Convolutional, Turbo)</u>	
>Coding Rate	<u>C – Coding</u>		<u>ENUMERATED (1/2, 1/3)</u>	
>Rate matching attribute	<u>M</u>		<u>INTEGER (1..maxRM)</u>	
>CRC size	<u>M</u>		<u>ENUMERATED (0, 8, 12, 16, 24)</u>	
>CHOICE mode				
>>TDD				
>>>2 nd interleaving mode	<u>M</u>		<u>Enumerated(Frame related, Timeslot related)</u>	

<u>Condition</u>	<u>Explanation</u>
<u>Blocks</u>	<u>This IE is only present if "Number of Transport Blocks" is greater than 0.</u>
<u>Coding</u>	<u>This IE is only present if IE "Type of channel coding" is "Convolutional" or "Turbo"</u>
<u>TTIdynamic</u>	<u>This IE is mandatory if not defined as semistatic parameter. Otherwise it is absent.</u>
<u>TTIsemistatic</u>	<u>This IE is mandatory if not defined as dynamic parameter. Otherwise it is absent.</u>

<u>Range bound</u>	<u>Explanation</u>
<u>MaxTFcount</u>	<u>Maximum number of different transport formats that can be included in the Transport format set for one transport channel is 32.</u>
<u>MaxRM</u>	<u>Maximum number that could be set as rate matching attribute for a transport channel.</u>
<u>MaxTTIcount</u>	<u>The amount of different TTI that are possible for that transport format is 4.</u>

9.2.1.60 ToAWE

TOAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. TOAWE is defined with a positive value relative Latest Time of Arrival (LTOA). A data frame arriving after TOAWS gives a Timing Adjustment Control frame response.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>ToAWE</u>			<u>INTEGER</u> <u>(0..2559)</u>	<u>msec.</u>

9.2.1.61 ToAWS

TOAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. TOAWS is defined with a positive value relative Time of Arrival Window Endpoint (TOAWE). A data frame arriving before TOAWS gives a Timing Adjustment Control frame response.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>ToAWS</u>			<u>INTEGER</u> <u>(0..1279)</u>	<u>msec.</u>

9.2.1.54 Transport Format Set

The Transport Format Set is defined as the set of Transport Formats associated to a Transport Channel, e.g. DCH.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Transport Format Set</u>				
<u>Dynamic Transport Format Information</u>		1 to <u><maxTFcount></u>		
<u>>Number of Transport blocks</u>	M		<u>INTEGER</u> <u>(0..4095)</u>	
<u>>Transport Block Size</u>	<u>C</u> Blocks		<u>INTEGER</u> <u>(1..5000)</u>	Bits
<u>>CHOICE mode</u>				
<u>>>TDD</u>				
<u>>>>Transmission time interval</u>	<u>C</u> <u>TTIdynami</u> <u>e</u>	1 to <u><maxTTIcount></u>	<u>Enumerated</u> (10, 20, 40, 80)	
<u>Semi-static Transport Format Information</u>				
<u>>Transmission time interval</u>	<u>C</u> <u>TTIsemista</u> <u>tic</u>		<u>ENUMERATED</u> <u>(10, 20, 40, 80)</u>	msec
<u>>Type of channel coding</u>	M		<u>ENUMERATED</u> <u>(No coding,</u> <u>Convolutional,</u> <u>Turbo)</u>	
<u>>Coding Rate</u>	<u>C</u> Coding		<u>ENUMERATED</u> <u>(1/2, 1/3)</u>	
<u>>Rate matching attribute</u>	M		<u>INTEGER</u> <u>(1..maxRM)</u>	
<u>>CRC size</u>	M		<u>ENUMERATED</u> <u>(0, 8, 12, 16, 24)</u>	
<u>>CHOICE mode</u>				
<u>>>TDD</u>				
<u>>>>2nd interleaving mode</u>	M		<u>Enumerated</u> (<u>Fra</u> <u>me</u> related, <u>Timeslot</u> 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.

9.2.1.55 — ToAWE

TOAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. TOAWE is defined with a positive value relative Latest Time of Arrival (LTOA). A data frame arriving after TOAWE gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
ToAWE			INTEGER (0..2550)	msec.

9.2.1.56 — ToAWS

TOAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. TOAWS is defined with a positive value relative Time of Arrival Window Endpoint (TOAWE). A data frame arriving before TOAWS gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
ToAWS			INTEGER (0..1270)	msec.

9.2.1.5762 Transaction ID

The transaction ID is used to associate all the messages belonging to the same procedure. Messages belonging to the same procedure shall use the same transaction ID.

The transaction ID is determined by the initiating peer of a procedure. For common procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and signalled over the same Node B control port. For dedicated procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and initiated towards the same Node B/CRNC context.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transaction ID			CHOICE INTEGER (0..127) or INTEGER (0..32767)	

9.2.1.5863 Transport Layer Address

Transport Layer Address defines the transport address of the NodeB. For details on the Transport Address used see [2].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transport Layer Address			Bit string(1...160, ...)	

9.2.1.64 TSTD Indicator

Indicates if TSTD shall be active or not.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>TSTD Indicator</u>			<u>ENUMERATED(active, inactive)</u>	

9.2.1.5965 UARFCN

Designate the central frequency of the channel number.

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
UARFCN			INTEGER (0..16383, ...)	corresponds to 0.0Hz..3276.6MHz (25.104, section 5.4 and 25.105)

[Editor's Note: in RRC they have additional attributes such as the "raster" included in the IE]

9.2.1.6066 UL FP mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL FP mode			ENUMERATED(Normal, Silent)	

9.2.1.6467 UL interference level

The UL interference level indicates the UL interference at a certain cell[FDD]/time slot[TDD] under CRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL interference level			ENUMERATED(-128.0dBm..-60.0dBm)	Resolution is 0.1 dBm.

9.2.1.62 CFN Offset <new section>

Activation time for the compressed mode pattern.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CFN Offset			Integer (0..255)	Number of frames between CFN and the CM pattern activation.

9.2.1.63 — TSTD Indicator

Indicates if TSTD shall be active or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TSTD Indicator			ENUMERATED (active, inactive)	

9.2.1.64 — Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Diversity Control Field			ENUMERATED (May, Must, Must not)	

9.2.1.65 — Diversity Indication

The Diversity Indication indicates if the RL has been or has not been combined with another RL.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Diversity Indication			ENUMERATED (Combined, not combined)	

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			INTEGER (1..256)	

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</i> — Threshold		INTEGER(0..63)	According to mapping in 25.215/25.225
Transmitted Carrier Power	<i>C</i> — Threshold		INTEGER(0..100)	According to mapping in 25.215/25.225
Acknowledged RA tries	<i>C</i> — Threshold		INTEGER(0..240,...)	The number of L1 acknowledged random access tries per every 20 ms period.
Timeslot ISCP	<i>C</i> — Threshold		INTEGER(0..81)	According to mapping in 25.225 (TDD only)
SIR	<i>C</i> — Threshold		INTEGER(0..63)	According to mapping in 25.215/25.225
SIR Error	<i>C</i> — Threshold		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</i> — Threshold		INTEGER(0..127)	According to mapping in 25.215/25.225
RSCP	<i>C</i> — Threshold		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</i> Threshold		INTEGER(0..62)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 62: 31dB
Transmitted Carrier Power	<i>C</i> Threshold		INTEGER(0..100)	According to mapping in 25.215/25.225
Acknowledged RA tries	<i>C</i> Threshold		INTEGER(0..240,...)	The number of L1 acknowledged random access tries per every 20 ms period.
Timeslot ISCP	<i>C</i> Threshold		INTEGER(0..80)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 80: 40dB
SIR	<i>C</i> Threshold		INTEGER(0..62)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 62: 31dB
SIR-Error	<i>C</i> Threshold		INTEGER(0..124)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 124: 62 dB
Transmitted Code Power	<i>C</i> Threshold		INTEGER(0..112,...)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 112: 56 dB
RSCP	<i>C</i> Threshold		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.

9.2.2 FDD specific parameters

9.2.2.1 AICH Transmission Timing

IE/Group Name	Presence	Range	IE type and reference	Semantics description
AICH Transmission Timing			ENUMERATED (0, 1)	According to 25.331 chapter 10.2.6.17.

9.2.2.2 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip offset is used as offset for the DL DPCH relative to the Primary CPICH timing.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Chip Offset			INTEGER (0..38399)	Chips

9.2.2.3 Common Channels Capacity Consumption Law

The capacity consumption law indicates the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor.

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Common Transport Channel Setup

In case of usage of the Common Transport Channel Deletion, the consumption cost given in the consumption law must be credited to the Capacity Credit.

If the modelling of the internal resource capability of the B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

IE/Group Name	Presence	Range	IE type and reference	Semantics description
<u>Common Channels Capacity Consumption Law</u>				
<u>SF allocation law</u>		<u><maxNumberOfS F></u>		<u>For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.</u>
<u>DL cost</u>	<u>M</u>		<u>INTEGER (0..65535)</u>	
<u>UL cost</u>	<u>M</u>		<u>INTEGER (0..65535)</u>	

9.2.2.34 Compressed mode method

Defines the method for generating the downlink compressed mode gap, as described in 25.212.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Compressed Mode Method			ENUMERATED (None, Puncturing, SF/2, Higher Layer Scheduling)	None = restore the normal mode

9.2.2.45 D-Field Length

Defines the D Field size of the UL DPCCH slot.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
D Field Length			ENUMERATED (1, 2)	

9.2.2.6 Dedicated Channels Capacity Consumption Law

The capacity consumption law indicates the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor.

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Radio Link Setup
- Radio Link Addition
- Radio Link Reconfiguration (case of increase of the SF)

In case of usage of the Radio Link Deletion or of the Radio Link Reconfiguration (case of decrease of the SF) procedure, the consumption cost given in the consumption law shall be credited to the Capacity Credit.

If the modelling of the internal resource capability of the B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Dedicated Channels Capacity Consumption Law</u>				
<u>>SF allocation law</u>		<u><maxNumberOfSF></u>		<u>For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.</u>
<u>>>DL cost</u>	<u>M</u>		<u>INTEGER (0..65535)</u>	
<u>>>UL cost</u>	<u>M</u>		<u>INTEGER (0..65535)</u>	

9.2.2.7 Diversity Control Field

Void.

9.2.2.8 Diversity Indication

Void.

9.2.2.59 Diversity mode

Define the diversity mode to be applied.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
Diversity Mode			ENUMERATED (None, STTD, Closed loop mode 1, Closed loop mode2)	

9.2.2.610 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, accordingly to 25.211.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL DPCH slot format			INTEGER (0..16)	

9.2.2.711 DL frame type

This parameter defines if frame structure type 'A' or 'B' shall be used in downlink compressed mode. This is defined in TS 25.212

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Downlink Frame Type			ENUMERATED (TypeA, TypeB)	

9.2.2.12 DL or Global Capacity Credit

The capacity credit indicates to the CRNC the Downlink or global capacity of a node B or of a local cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL or Global Capacity Credit			INTEGER (0..65535)	

9.2.2.813 DL Scrambling Code

DL scrambling code to be used by the RL. One cell may have multiple DL scrambling codes available.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL Scrambling Code			INTEGER (0..15)	0= Primary scrambling code of the cell 1...15= Secondary scrambling code

9.2.2.9 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Multiplexing Position			ENUMERATED (Fixed, Flexible)	

9.2.2.4014 FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
FDD DL ChannalisationCode Number			INTEGER(0.. 255)	The maximum value is equal to the DL spreading factor –1

9.2.2.11 ~~FDD TPC DL step size~~

~~This parameter indicates step size for the DL power adjustment.~~

IE/Group Name	Presence	Range	IE type and reference	Semantics description
FDD TPC Downlink step size			ENUMERATED (0.5, 1)	

9.2.2.1215 FDD S-CCPCH Offset

The Secondary CCPCH offset is defined as the time offset towards the Primary CCPCH in the cell. The offset is a multiple of 256 chips.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
FDD S-CCPCH Offset			INTEGER(0.. 149)	0: 0 chip 1: 256 chip 2: 512 chip .. 149: 38144 chip [TS 25.211]

9.2.2.16 FDD TPC DL step size

This parameter indicates step size for the DL power adjustment.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>FDD TPC Downlink step size</u>			<u>ENUMERATED (0.5, 1)</u>	

9.2.2.13

~~-deleted-~~

9.2.2.1417 Gap Period

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Gap Period			INTEGER(0..255)	Frames

9.2.2.1518 Gap Position Mode

The gap position can be fixed or adjustable, as defined in TS 25.212.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Gap Position Mode			ENUMERATED (Fixed, Flexible)	

9.2.2.19 Max Adjustment Period

Adjustment Period IE defines the period at the end of which the DL transmitted power shall converge, [with an accuracy of ± 0.25 dB] to the reference power value assuming zero-sum alternating stream of DL PC commands received in that period of time.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Max Adjustment Period</u>			INTEGER (10, 20, 30, 40, ..., 500)	Slots

9.2.2.20 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level in one slot period that can be utilised by the Power drifting prevention algorithm. This value does not include the DL inner loop PC adjustment.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Maximum Adjustment Step</u>			INTEGER (0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1)	dB

9.2.2.4621 Maximum Number of UL DPDCHs

This parameter is an UE Radio Access Capability parameter which is needed in rate matching algorithm.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
Max Number of UL DPDCHs			INTEGER (1..6)	

9.2.2.4722 Minimum UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH which is supported by UE. Needed by rate matching algorithm.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
Min UL Channelisation Code length			ENUMERATED (4,8,16, 32,64,128, 256)	

9.2.2.23 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Multiplexing Position</u>			ENUMERATED (Fixed, Flexible)	

9.2.2.1824 Pattern Duration (PD)

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PD			INTEGER(0..2047, ...)	Frames If the value is set to '0', the Pattern Duration shall be interpreted as 'infinite'

9.2.2.25 PDSCH code mapping

This IE indicates the association between each possible value of TFCI(field 2) and the corresponding PDSCH channelisation code. There are three ways which the UTRAN must choose between in order to signal the mapping information, these are described below. The signalling capacity consumed by the different methods will typically vary depending on the way in which the UTRAN configures usage of the DSCH.

Method #1 - Using code range

The mapping is described in terms of a number of groups, each group associated with a given spreading factor. The UE maps TFCI(field2) to start' of Group = 1. The PDSCH code used for TFCI(field 2) = 1, is given by the SF and code number = 'PDSCH code start' + 1. This continues, with unit increments in the value of TFC mapping to unit increments in code number up until the point that code number = 'PDSCH code stop'. The process continues in the same way for the next group with the TFCI(field 2) value used by the UE when constructing its mapping table starting at the largest value reached in the previous group plus one. In the event that 'PDSCH code start' = 'PDSCH code lues to PDSCH codes in the following way. The PDSCH code used for TFCI(field 2) = 0 , is given by the SF and code number = 'PDSCH code stop' (as may occur when mapping the PDSCH root code to a TFCI (field 2) value) then this is to be interpreted as defining the mapping between the channelisation code and a single TFCI (ie. TFCI(field 2) should not be incremented twice).

Note that each value of TFCI (field 2) maps to a given code number and when the 'multi-code info' parameter is greater than 1, then each value of TFCI (field 2) actually maps to a set of PDSCH codes. In this case contiguous codes are assigned, starting at the channelisation code denoted by the 'code number' parameter and including all codes with code numbers up to and including 'code number' - 1 + the value given in the parameter 'multi-code info'.

Method #2 - Using TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given PDSCH channelisation code. The PDSCH code specified in the first group applies for all values of TFCI(field 2) between 0 and the specified 'Max TFCI(field2)'. The PDSCH code specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field2) value' specified in the last group plus one and the specified 'Max TFCI(field2)' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value starting at the largest value reached in the previous group plus one.

Method #3 - Explicit

The mapping between TFCI(field 2) value and PDSCH channelisation code is spelt out explicitly for each value of TFCI (field2)

<u>Information Element/Group name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>DL Scrambling Code</u>	<u>M</u>		<u>INTEGER (0..15)</u>	<u>Scrambling code on which PDSCH is transmitted. 0= Primary scrambling code of the cell 1...15 = Secondary scrambling code</u>

<u>Choice signalling method</u>				
<u>>code range</u>				
<u>>>PDSCH code mapping</u>		1 to <MaxNoCodeGroups>		
<u>>>Spreading factor</u>	M		Enumerated(4, 8, 16, 32, 64, 128, 256)	
<u>>>multi-code info</u>	M		Integer(1..16)	This parameter indicates the number of PDSCH transmitted to the UE. The PDSCH codes all have the same SF as denoted by the Spreading factor parameter. Contiguous codes are assigned, starting at the channelisation code denoted by the spreading factor and code number parameter and including all codes, with code numbers up to and including 'code number' - 1 + 'multi-code info'. Note that 'code number'-1+'multi-code info' will not be allowed to exceed 'maxCodeNumComp'-1
<u>>>>Code number</u>	M		Integer(0..maxCodeNumComp-1)	PDSCH code start. Numbering as described in TS 25.331
<u>>>>Code number</u>	M		Integer(0..maxCodeNumComp-1)	PDSCH code stop. Numbering as described in TS 25.331
<u>>TFCI range</u>				
<u>>>DSCH mapping</u>		1 to <MaxNoTFCIGroups>		
<u>>>>Max TFCI(field2) value</u>	M		Integer(1..1023)	This is the maximum value in the range of TFCI(field 2) values for which the specified PDSCH code applies
<u>>>>Spreading factor</u>	M		Enumerated(4, 8, 16, 32, 64, 128, 256)	SF of PDSCH code
<u>>>>multi-code info</u>	M		Integer(1..16)	Semantics as described for this parameter above
<u>>>>Code number</u>	M		Integer(0..maxCodeNumComp-1)	Code number of PDSCH code. Numbering as described in TS 25.331
<u>>Explicit</u>				
<u>>>PDSCH code</u>		1 to MaxTFCI_2_Combs		The first instance of the parameter PDSCH code corresponds to TFCI (field2) = 0, the second to TFCI(field 2) = 1 and so on.
<u>>>>Spreading factor</u>	M		Enumerated(4, 8, 16, 32, 64, 128, 256)	SF of PDSCH code
<u>>>>multi-code info</u>	M		Integer(1..16)	Semantics as described for this parameter above
<u>>>>Code number</u>	M		Integer(0..maxCodeNumComp-1)	Code number of PDSCH code. Numbering as described in TS 25.331

<u>Range Bound</u>	<u>Explanation</u>
<u>MaxCodeNumComp</u>	<u>Maximum number of codes at the defined spreading factor, within the complete code tree.</u>
<u>MaxTFCI_2_Combs</u>	<u>Maximum number of TFCI (field 2) combinations (given by 2 raised to the power of the length of the TFCI field 2)</u>
<u>MaxNoTFCIGroups</u>	<u>Maximum number of groups, each group described in terms of a range of TFCI(field 2) values for which a single PDSCH code applies.</u>
<u>MaxNoCodeGroups</u>	<u>Maximum number of groups, each group described in terms of a range of PDSCH channelisation code values for which a single spreading factor applies.</u>

9.2.2.26 PICH Mode

The number of paging indicators (PIs) in a PICH frame.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>PICH Mode</u>			<u>Enumerated(18, 36, 72, 144)</u>	<u>Number of PI per frame</u>

9.2.2.27 Power Adjustment Type

Defines the characteristic of the power adjustment.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Power Adjustment Type</u>			<u>ENUMERATED (None, Common, Individual)</u>	

9.2.2.19 PICH Mode

The number of paging indicators (PIs) in a PICH frame.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>PICH Mode</u>			<u>Enumerated(18, 36, 72, 144)</u>	<u>Number of PI per frame</u>

9.2.2.2028 Power Control Mode

Power Control Mode specifies the uplink power mode applied during recovery period after each transmission gap in compressed mode. PCM can take 2 values (0 or 1). The different power control modes are described in TS 25.214.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Power Control Mode</u>			<u>ENUMERATED (0, 1,..)</u>	

9.2.2.2429 Power Offset

This IE defines a power offset respect the Downlink transmission power of a DPCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Offset			INTEGER (0...24)	Step 0.25 dB, range 0-6 dB

9.2.2.2230 Power Resume Mode

Power Resume Mode selects the uplink power control method to calculate the initial transmit power after the gap. PRM can take two values (0 or 1) and is described in TS 25.214.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Resume Mode			ENUMERATED (0, 1,..)	Described in TS 25.214

9.2.2.2331 Preamble Signature

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Preamble Signatures			BIT STRING (16)	Bit 0=P0 Bit 1=P1 .. Bit 15=P15 [25.213]

9.2.2.32 Preamble threshold

The IE sets the threshold for preamble detection. The threshold is set in dB over the interference level. A Preamble threshold equal to n dB means that the preamble power must be received n dB over the interference in order to be acknowledged.

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
Preamble threshold			INTEGER (0, 1, ...,72)	0: 0 dB 1: 0.5 dB 2: 1 dB .. 72: 36.0 dB

9.2.2.33 Primary CPICH Power

Primary CPICH power is the power that shall be used for transmitting the P-CPICH in a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Primary CPICH power			Enumerated (-10, ..., 50)	Unit dBm Granularity 0.1 dB

9.2.2.2434 Primary Scrambling code

The Primary scrambling code to be used in the cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Primary Scrambling Code			Integer (0 .. 511)	

9.2.2.25 ~~Primary CPICH Power~~

~~Primary CPICH power is the power that shall be used for transmitting the P CPICH in a cell.~~

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Primary CPICH power			Enumerated (-10, ..., 50)	Unit dBm Granularity 0.1 dB

9.2.2.2635 Propagation Delay

Propagation delay is the one-way propagation delay of the radio signal from the MS to the Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Propagation Delay			INTEGER (0..255)	Chips. Step size is 3 chips. 0=0 chips, 1=3 chips, ...

9.2.2.36 QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
<u>QE-Selector</u>			<u>ENUMERATED(selected DCH, non-selected DCH)</u>	

9.2.2.2737 RACH Slot Format

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RACH Slot Format			ENUMERATED(0..3)	See 25.211.

9.2.2.2838 RACH sub Channel numbers

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RACH Sub Channel Numbers			BIT STRING (12)	Bit 0=Sub Channel Number 0 Bit 1=Sub Channel Number 1 ... Bit 11=Sub Channel Number 11

9.2.2.39 RL Set ID

The RL Set ID uniquely identifies one RL Set within a Node B Communication Context.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>RL Set ID</u>			<u>INTEGER</u> <u>(0..31)</u>	

9.2.2.40 S-Field Length

The UE uses the S Field of the UL DPCCH slot to send the SS DT Cell ID to the network.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>S Field Length</u>			<u>ENUMERAT</u> <u>ED (1, 2)</u>	

9.2.2.2941 Scrambling code change

This parameter indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
Scrambling Code Change			ENUMERAT ED (Change, No change)	

9.2.2.3042 Scrambling Code Word Number

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
Scrambling Code Word Number			INTEGER (0..255)	

9.2.2.3143 Secondary CCPCH Slot Format

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
Secondary CCPCH Slot Format			INTEGER(0. .17)	

~~9.2.2.32 S-Field Length~~

~~The UE uses the S Field of the UL DPCCH slot to send the SS DT Cell ID to the network.~~

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>S Field Length</u>			<u>ENUMERAT</u> <u>ED (1, 2)</u>	

9.2.2.3344 SS DT Cell Identity

The SS DT Cell ID is a temporary ID for SS DT assigned to a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SSDT Cell Identity			ENUMERATED (a, b.., h)	

9.2.2.3445 SSDT Cell ID Length

The SSDT Cell ID Length parameter shows the length of the SSDT Cell ID.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell ID Length			ENUMERATED (Short, Medium, Long)	

9.2.2.3546 SSDT Support Indicator

The SSDT Support Indicator indicates whether a RL supports SSDT or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SSDT Support Indicator			ENUMERATED (SSDT Supported, SSDT not supported).	

9.2.2.3647 SSDT Indication

The SSDT Indication indicates whether SSDT is in use by the UE or not.

IE/Group name	Presence	Range	IE type and reference	Semantics description
SSDT Indication			ENUMERATED (SSDT Active in the UE, SSDT not Active in the UE)	

9.2.2.3748 STTD Indicator

Indicates if STTD shall be active or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
STTD Indicator			ENUMERATED (active, inactive)	

9.2.2.3849 T_Cell

Timing delay used for defining start of SCH, CPICH and the DL scrambling code(s) in a cell relative BFN. Resolution 256 chips.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
T Cell			Enumerated (0 , 1, ...,9)	0: 0 chip 1: 256 chip .. 9: 2304 chip [TS 25.402]

9.2.2.3950 TFCI signalling mode

This parameter indicates if the normal or split mode is used for the TFCI. In the event that the split mode is to be used then the IE indicates whether the split is 'Hard' or 'Logical', and in the event that the split is 'Logical' the IE indicates the number of bits in TFCI (field 2).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TFCI signalling option	M		ENUMERATED (Normal, Split)	'Normal' : meaning no split in the TFCI field (either 'Logical' or 'Hard') 'Split' : meaning there is a split in the TFCI field (either 'Logical' or 'Hard')
Split type	C-IfSplit		Enumerated (Hard, Logical)	'Hard' : meaning that TFCI (field 1) and TFCI (field 2) are each 5 bits long and each field is block coded separately. 'Logical' : meaning that on the physical layer TFCI (field 1) and TFCI (field 2) are concatenated, field 1 taking the most significant bits and field 2 taking the least significant bits). The whole is then encoded with a single block code.
Length of TFCI2	C-SplitType		Integer (1..10)	This IE indicates the length measured in number of bits of TFCI (field2).

Condition	Explanation
IfSplit	This IE is only present if 'TFCI signalling option' = 'split'
SplitType	This IE is only present if 'Split type' = 'Logical'

9.2.2.4051 TGD

Transmission Gap Distance is the duration of transmission between two consecutive transmission gaps within a transmission gap period, expressed in number of frames. In case there is only one transmission gap in the transmission gap period, this parameter shall be set to zero.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TGD			INTEGER(0..3839)	Slots

9.2.2.4452 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			INTEGER (3,4,7,10,14)	Slot

9.2.2.4253 Transmit Diversity Indicator

The Transmit Diversity Indicator indicates whether transmit diversity shall be active or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transmit Diversity Indicator			ENUMERATED(active, inactive)	

9.2.2.4354 UL/DL compressed mode selection:

This parameter specifies whether compressed mode is used in UL only, DL only or both UL and DL

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL/DL compressed mode selection			ENUMERATED (UL only, DL only, both UL and DL)	

9.2.2.4455 UL delta SIR

The delta in uplink Eb/No that shall be added to the SIR target used during compressed mode frames.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Uplink Delta SIR			Enumerated (-6..+10dB)	Step 0.1 dB.

9.2.2.4556 UL delta SIR after

The delta in uplink SIR target that shall be added to the SIR target used one frame after the compressed mode frames.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Uplink Delta SIR after			Enumerated (-6..+10dB)	Step 0.1 dB.

9.2.2.4657 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, accordingly to 25.211

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL DPCCH slot format			INTEGER (0..5)	

9.2.2.4758 UL SIR

The UL SIR indicates a received UL SIR.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL SIR			ENUMERATED (-8.2 .. 17.3)	Step 0.1 dB

9.2.2.4859 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL scrambling code				
>UL scrambling code number	M		INTEGER (0.. $2^{24}-1$)	
>UL scrambling code length	M		ENUMERATED (Short, Long)	

9.2.2.49 Preamble threshold

The IE sets the threshold for preamble detection. The threshold is set in dB over the interference level. A Preamble threshold equal to n dB means that the preamble power must be received n dB over the interference in order to be acknowledged.

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
Preamble threshold			INTEGER (0, 1, ..., 72)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 72: 36.0 dB

9.2.2.50 PDSCH code mapping

This IE indicates the association between each possible value of TFCI (field 2) and the corresponding PDSCH channelisation code. There are three ways which the UTRAN must choose between in order to signal the mapping information, these are described below. The signalling capacity consumed by the different methods will typically vary depending on the way in which the UTRAN configures usage of the DSCH.

Method #1 Using code range

The mapping is described in terms of a number of groups, each group associated with a given spreading factor. The UE maps TFCI (field 2) via start of Group = 1. The PDSCH code used for TFCI (field 2) = 1, is given by the SF and code number = 'PDSCH code start' + 1. This continues, with unit increments in the value of TFC mapping to unit increments in code number up until the point that code number = 'PDSCH code stop'. The process continues in the same way for the next group with the TFCI (field 2) value used by the UE when constructing its mapping table starting at the largest value reached in the previous group plus one. In the event that 'PDSCH code start' = 'PDSCH code stop' to PDSCH codes in the following way. The PDSCH code used for TFCI (field 2) = 0, is given by the SF and code number = 'PDSCH code stop' (as may occur when mapping the PDSCH root code to a TFCI (field 2) value) then this is to be interpreted as defining the mapping between the channelisation code and a single TFCI (ie. TFCI (field 2) should not be incremented twice).

Note that each value of TFCI (field 2) maps to a given code number and when the 'multi-code info' parameter is greater than 1, then each value of TFCI (field 2) actually maps to a set of PDSCH codes. In this case contiguous codes are assigned, starting at the channelisation code denoted by the 'code number' parameter and including all codes with code numbers up to and including 'code number' + 1 + the value given in the parameter 'multi-code info'.

Method #2—Using TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given PDSCH channelisation code. The PDSCH code specified in the first group applies for all values of TFCI(field 2) between 0 and the specified 'Max TFCI(field 2)'. The PDSCH code specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field 2) value' specified in the last group plus one and the specified 'Max TFCI(field 2)' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value starting at the largest value reached in the previous group plus one.

Method #3—Explicit

The mapping between TFCI(field 2) value and PDSCH channelisation code is spelt out explicitly for each value of TFCI (field 2)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
DL-Scrambling-Code	M		INTEGER (0..15)	Scrambling code on which PDSCH is transmitted. 0= Primary scrambling code of the cell 1...15= Secondary scrambling code

<i>Choice signalling method</i>				
<i>>code range</i>				
>>PDSCH code mapping		1 to <MaxNoCodeGroups>		
>>Spreading factor	M		Enumerated(4, 8, 16, 32, 64, 128, 256)	
>>multi-code info	M		Integer(1..16)	This parameter indicates the number of PDSCH transmitted to the UE. The PDSCH codes all have the same SF as denoted by the Spreading factor parameter. Contiguous codes are assigned, starting at the channelisation code denoted by the spreading factor and code number parameter and including all codes, with code numbers up to and including 'code number' - 1 + 'multi-code info'. Note that 'code number' - 1 + 'multi-code info' will not be allowed to exceed 'maxCodeNumComp' - 4.
>>>Code number	M		Integer(0..maxCodeNumComp-1)	PDSCH code start, Numbering as described in TS 25.331
>>>Code number	M		Integer(0..maxCodeNumComp-1)	PDSCH code stop, Numbering as described in TS 25.331
<i>>TFCI range</i>				
>>DSCH mapping				
		1 to <MaxNoTFCIGroups>		
>>>Max TFCI(field2) value	M		Integer(1..1023)	This is the maximum value in the range of TFCI(field2) values for which the specified PDSCH code applies
>>>Spreading factor	M		Enumerated(4, 8, 16, 32, 64, 128, 256)	SF of PDSCH code
>>>multi-code info	M		Integer(1..16)	Semantics as described for this parameter above
>>>Code number	M		Integer(0..maxCodeNumComp-1)	Code number of PDSCH code. Numbering as described in TS 25.331
<i>>Explicit</i>				
>>PDSCH code				
		1 to MaxTFCI_2_Combs		The first instance of the parameter PDSCH code corresponds to TFCI(field2) = 0, the second to TFCI(field2) = 1 and so on.
>>>Spreading factor	M		Enumerated(4, 8, 16, 32, 64, 128, 256)	SF of PDSCH code
>>>multi-code info	M		Integer(1..16)	Semantics as described for this parameter above
>>>Code number	M		Integer(0..maxCodeNumComp-1)	Code number of PDSCH code. Numbering as described in TS 25.331

Range-Bound	Explanation
MaxCodeNumComp	Maximum number of codes at the defined spreading factor, within the complete code tree.
MaxTFCI_2_Combs	Maximum number of TFCI (field 2) combinations (given by 2 raised to the power of the length of the TFCI field 2)
MaxNoTFCIGroups	Maximum number of groups, each group described in terms of a range of TFCI (field 2) values for which a single PDSCH code applies.
MaxNoCodeGroups	Maximum number of groups, each group described in terms of a range of PDSCH channelisation code values for which a single spreading factor applies.

9.2.2.51 — Power Adjustment Type

Defines the characteristic of the power adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Adjustment Type			ENUMERATED (None, Common, Individual)	

9.2.2.52 — Max Adjustment Step

Defines the maximum allowed value for the change of DL power level in one slot period that can be utilised by the Power drifting prevention algorithm. This value does not include the DL inner loop PC adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Maximum Adjustment Step			INTEGER (0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1)	dB

9.2.2.53 — Max Adjustment Period

Adjustment Period IE defines the period at the end of which the DL transmitted power shall converge, [with an accuracy of ± 0.25 dB] to the reference power value assuming zero-sum alternating stream of DL PC commands received in that period of time.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Max Adjustment Period			INTEGER (10, 20, 30, 40, ..., 500)	Slots

9.2.2.54 — DL or Global Capacity Credit

The capacity credit indicates to the CRNC the Downlink or global capacity of a node B or of a local cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL or Global Capacity Credit			INTEGER (0..65535)	

9.2.2.5560 UL Capacity Credit

The capacity credit indicates to the CRNC the Uplink capacity of a node B or of a local cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL Capacity Credit			INTEGER (0..65535)	

9.2.2.56 Common Channels Capacity Consumption Law

The capacity consumption law indicates the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor.

This capacity consumption law indicates the consumption law to be used with the following procedures:

- Common Transport Channel Setup

In case of usage of the Common Transport Channel Deletion, the consumption cost given in the consumption law must be credited to the Capacity Credit.

If the modelling of the internal resource capability of the B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Common Channels Capacity Consumption Law				
SF allocation law		<maxNumberOfSF>		For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.
DL cost	M		INTEGER (0..65535)	
UL cost	M		INTEGER (0..65535)	

9.2.2.57 Dedicated Channels Capacity Consumption Law

The capacity consumption law indicates the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor.

This capacity consumption law indicates the consumption law to be used with the following procedures:

- Radio Link Setup
- Radio Link Addition
- Radio Link Reconfiguration (case of increase of the SF)

In case of usage of the Radio Link Deletion or of the Radio Link Reconfiguration (case of decrease of the SF) procedure, the consumption cost given in the consumption law shall be credited to the Capacity Credit.

If the modelling of the internal resource capability of the B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Dedicated Channels Capacity Consumption Law				
>SF-allocation-law		<maxNumberOfSF>		For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.
>>DL-cost	M		INTEGER (0..65535)	
>>UL-cost	M		INTEGER (0..65535)	

9.2.2.58 QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
QE-Selector			ENUMERATED(selected DCH, non-selected DCH)	

9.2.2.59 RL-Set ID

The RL-Set ID uniquely identifies one RL-Set within a Node B-Communication-Context.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RL-Set ID			INTEGER (0..31)	

9.2.3 TDD specific Parameters

9.2.3.1 Block STTD Indicator

Indicates if Block STTD antenna diversity is applied or not to the PCCPCH.

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
Block STTD Indicator			ENUMERATED(active, inactive)	

9.2.3.42 Burst Type

The Burst Type as described in TS25.221.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Burst Type			ENUMERATED (Type1, Type2)	

9.2.3.23 CCTrCH ID

The CCTrCH ID identifies unambiguously a CCTrCH inside a Radio Link.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CCTrCH ID			INTEGER (0..15)	

9.2.3.34 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the Code Groups, Scrambling Codes, Midambles and Toffset (see table 9 of TS25.223)

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell Parameter ID			INTEGER (0..127)	

9.2.3.45 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DPCH ID	M		INTEGER (0..239)	

9.2.3.56 Max PRACH Midamble shift

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Max PRACH Midamble Shifts			ENUMERATED (4, 8)	

9.2.3.67 Midamble shift

Different bursts transmitted simultaneously, using the same midamble code shall use different Midamble Shifts.

The 256 chip midamble supports 3 different time shifts, the 512 chips midamble may support 8 or even 16 time shifts.

The range of this parameter is 0 .. 15 for long midamble and 0 .. 2 for short midamble.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Midamble Shift			INTEGER (0..15)	

9.2.3.78 Paging Indicator Length

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Paging Indicator Length			INTEGER (2 4 8)	number of symbols in the page indicator / see TS25.221

9.2.3.89 PCCPCH Power

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PCCPCH Power			INTEGER(-15..+40)	Unit dBm Granularity 0.1 dB

9.2.3.10 PDSCH ID

The PDSCH ID identifies unambiguously a PDSCH inside a cell.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>PDSCH ID</u>			<u>INTEGER</u> <u>(0..255)</u>	

9.2.3.11 PDSCH Set Id

The PDSCH Set Id identifies unambiguously a PDSCH Set inside a cell.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>PDSCH Set Id</u>			<u>INTEGER</u> <u>(0..255)</u>	<u>See 25.430</u>

9.2.3.12 PUSCH ID

The PUSCH ID identifies unambiguously a PUSCH inside a cell.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>PUSCH ID</u>			<u>INTEGER</u> <u>(0..255)</u>	

9.2.3.13 PUSCH Set Id

The PUSCH Set Id identifies unambiguously a PUSCH Set inside a cell.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>PUSCH Set Id</u>			<u>INTEGER</u> <u>(0..255)</u>	<u>See 25.430</u>

9.2.3.914 PRACH Midamble

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PRACH Midamble			ENUMERATED (Inverted, Direct)	

9.2.3.10 SCH Time Slot

The SCH Time Slot is only applicable if the value of Sync Case IE is Case 2.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SCH Time Slot			INTEGER(0..6)	

9.2.3.415 Repetition Length

The Repetition Length represents the number of consecutive Radio Frames inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Repetition Length			INTEGER(1..63)	

9.2.3.4216 Repetition Period

The Repetition Period represents the number of consecutive Radio Frames after which the same assignment scheme of Time Slots to a Physical Channel is repeated. This means that if the Time Slot K is assigned to a physical channel in the Radio Frame J , it is assigned to the same physical channel also in all the Radio Frames $J+n*Repetition\ Period$ (where n is an integer).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Repetition Period			ENUMERATED(1,2,4,8,16,32,64)	

9.2.3.17 SCH Time Slot

The SCH Time Slot is only applicable if the value of Sync Case IE is Case 2.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SCH Time Slot			INTEGER(0..6)	

9.2.3.4318 Sync case

The SCH and PCCPCH are mapped on one or two downlink slots per frame. There are two cases of SCH and PCCPCH allocation as follows:

- Case 1) SCH and PCCPCH allocated in a single TS#k
- Case 2) SCH allocated in two TS: TS#k and TS#k+8
PCCPCH allocated in TS#k

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Sync Case			Integer (1..2)	

9.2.3.1419 TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD Channelisation Code			ENUMERATED ((1/1), (2/1), (2/2), (4/1),... (4/4), (8/1), (8/8), (16/1)... (16/16))	

9.2.3.1520 TDD Physical Channel Offset

The Offset represents the phase information for the allocation of a physical channel. (SFN mod Repetition Period = Offset).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD Physical Channel Offset			INTEGER (0..63)	

9.2.3.1621 TDD TPC DL step size

This parameter indicates step size for the DL power adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD TPC Downlink step size			ENUMERATED (1, 2, 3)	

9.2.3.1722 TFCI Coding

The TFCI Coding describes the way how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TFCI Coding			Enumerated (4, 8, 16, 32)	

9.2.3.1823 Time Slot

The Time Slot represents the minimum time interval inside a Radio Frame that can be assigned to a Physical Channel.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Time Slot			INTEGER (0..14)	

9.2.3.1924 Time Slot Direction

This parameter indicates whether the TS in the cell is used in Uplink or Downlink direction.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Time Slot Direction			Enumerated (UL, DL)	

9.2.3.2025 Time Slot Status

This parameter indicates whether the TS in the cell is active or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Time Slot Status			Enumerated (active, notActive)	

9.2.3.2426 Transmission Diversity Applied

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transmission Diversity Applied			Boolean	

9.2.3.2227 USCH ID

The USCH ID uniquely identifies a USCH within a Node B Communication Context.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
USCH ID			INTEGER (0..255)	

~~9.2.3.23 Block STTD Indicator~~

~~Indicates if Block STTD antenna diversity is applied or not to the PCCPCH.~~

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
Block STTD Indicator			ENUMERATED(active, inactive)	

~~9.2.3.24 PDSCH Set Id~~

~~The PDSCH Set Id identifies unambiguously a PDSCH Set inside a cell.~~

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PDSCH Set Id			INTEGER (0..255)	See 25.430

~~9.2.3.25 PUSCH Set Id~~

~~The PUSCH Set Id identifies unambiguously a PUSCH Set inside a cell.~~

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PUSCH Set Id			INTEGER (0..255)	See 25.430

9.2.3.26 PDSCH ID

The PDSCH ID identifies unambiguously a PDSCH inside a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PDSCH ID			INTEGER (0..255)	

9.2.3.27 PUSCH ID

The PUSCH ID identifies unambiguously a PUSCH inside a cell.

IE/Group Name	Presence	Range	IE type	Semantics description
PUSCH ID			INTEGER (0..255)	

<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.				
25.433 CR 152		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 <i>list expected approval meeting # here</i> ↑	for approval for information	<table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td style="text-align: center;">X</td></tr> <tr><td style="text-align: center;"> </td></tr> </table> <table border="1" style="display: inline-table; vertical-align: middle; margin-left: 20px;"> <tr><td style="text-align: center;"> </td></tr> <tr><td style="text-align: center;"> </td></tr> </table> strategic non-strategic (for SMG use only)	X			
X						

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 17, 2000

Subject: Definition of the Relation between the Tabular Format and ASN.1 in NBAP

Work item: Agenda item 7.1 d)

Category:	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"/>	Release:	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: The relation of tabular format and ASN.1 is not clear in the current NBAP specification.

This CR proposes that the relation (normative vs. informative) of the tabular format and the ASN.1 description is defined so that both sections are part of the normative text, but in case of contradiction ASN.1 part takes precedence for everything else except the conditions for conditional IEs where Tabular Format takes precedence.

Clauses affected: New sections: 9.1.0, 9.2.0 and 9.3.0

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:	
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Other comments:



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

9 Elements for NBAP communication

9.1 Message functional definition and content

9.1.0 General

Section 9.1 presents the contents of NBAP messages in tabular format. The corresponding ASN.1 definition is presented in section 9.3. In case there is contradiction between the tabular format in section 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, where the tabular format shall take precedence.

9.1.1 Message Contents

NEXT MODIFIED SECTION

9.2 Information Element Functional Definition and Contents

9.2.0 General

Section 9.2 presents the NBAP IE definitions in tabular format. The corresponding ASN.1 definition is presented in section 9.3. In case there is contradiction between the tabular format in section 9.2 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, where the tabular format shall take precedence.

9.2.1 Common parameters

NEXT MODIFIED SECTION

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

9.3.0 General

Section 9.3 presents the Abstract Syntax of NBAP protocol with ASN.1. In case there is contradiction between the ASN.1 definition in this section and the tabular format in sections 9.1 and 9.2, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional elements, where the tabular format shall take precedence.

~~This chapter is for the time being only **INFORMATIVE**.~~

~~In case of misalignment with the tabular format of the messages in chapter 9.1 the ASN.1 needs to be aligned with the tabular format.~~

~~The setting of the criticality field and the level on which criticality is set for the IEs and sequences of IEs is still to be decided upon.~~

9.3.1 Usage of Private Message mechanism for non-standard use

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 154

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: **May 22, 2000**

Subject: **Correction of reference handling**

Work item: **18.2c**

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:
This CR proposes to ensure that all references in the specification are made to the numbered.
All references have been corrected to be references to the numbered reference in the list of references (chapter 2). This required some new references to be added to the list of references

Clauses affected:

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.**

1 Scope

The present document specifies the standards for NBAP specification to be used over Iub Interface.

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 TS25.427: "UTRAN Iur/Iub Interface User Plane Protocol for DCH Data Stream"
- [17] 3G TS25.402: "Synchronisation in UTRAN Stage2"
- [18] 3G TS25.331: "RRC Protocol Specification"
- [19] 3G TS25.221: "Physical channels and mapping of transport channels onto physical channels[TDD]"
- [20] 3G TS25.223: "Spreading and modulation (TDD)"

[21] 3G TS25.224: "Physical Layer Procedures (TDD)"

3 Definitions, symbols and abbreviations

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.

3.2 Symbols

No special symbols are defined in this document.

3.3 Abbreviations

For the purposes of the present document, the following abbreviations apply:

ASN.1	Abstract Syntax Notation One
ATM	Asynchronous Transfer Mode
BCCH	Broadcast Control Channel
CCPCH	Common Control Physical Channel
CFN	Connection Frame Number
CRNC	Controlling Radio Network Controller
DCH	Dedicated Channel
DL	Downlink

DPCCH	Dedicated Physical Control Channel
DPCH	Dedicated Physical Channel
DPDCH	Dedicated Physical Data Channel
DSCH	Downlink Shared Channel
FDD	Frequency Division Duplex
FP	Frame Protocol
L1	Layer 1
L2	Layer 2
NBAP	Node B Application Part
O&M	Operation and Management
PDSCH	Physical Downlink Shared Channel
PUSCH	Physical Uplink Shared Channel
RL	Radio Link
RLS	Radio Link Set
RNC	Radio Network Controller
RRC	Radio Resource Control
SRNC	Serving Radio Network Controller
TDD	Time Division Duplex
TFC	Transport Format Combination
TFCI	Transport Format Combination Indicator
TFCs	Transport Format Combination Set
TFS	Transport Format Set
TPC	Transmit Power Control
UE	User Equipment
UL	Uplink
USCH	Uplink Shared Channel
UTRAN	UMTS Terrestrial Radio Access Network

4 General

4.1 Procedure Specification Principles

Node B Application Part, NBAP, includes common procedures and dedicated procedures. It covers procedures for paging distribution, broadcast system information, request / complete / release of dedicated resources and management of logical resources (logical O&M [1]).

The principle for specifying the procedure logic is to specify the functional behaviour of the Node B exactly and completely. The CRNC functional behaviour is left unspecified.

4.2 Forwards and Backwards Compatibility

The forwards and backwards compatibility of the protocol is assured by a mechanism where all current and future the messages, and IEs or groups of related IEs, include Id and criticality fields that are coded in a standard format that will not be changed in the future. These parts can always be decoded regardless of the standard version.

5 NBAP Services

The NBAP offers the following services:

5.1 Parallel Transactions

Unless explicitly indicated in the procedure description, at any instance in time one protocol peer shall have initiated maximum one ongoing dedicated NBAP procedure related to a certain NodeB communication context.

6 Services Expected from Signalling Transport

Contents are missing.

7 Functions of NBAP

The NBAP protocol has the following functions:

- Cell Configuration Management. This function gives the CRNC the possibility to manage the cell configuration information in a Node B.
- Common Transport Channel Management. This function gives the CRNC the possibility to manage the configuration of Common Transport Channels in a Node B.
- System Information Management. This function gives the CRNC the ability to manage the scheduling of System Information to be broadcast in a cell.
- Resource Event Management. This function gives the Node B the ability to inform the CRNC about the status of Node B resources.
- Configuration Alignment. This function gives the CRNC and the Node B the possibility to verify that both nodes has the same information on the configuration of the radio resources.
- Measurements on Common Resources. This function allows the CRNC to initiate measurements in the Node B. The function also allows the Node B to report the result of the measurements.
- Radio Link Management. This function allows the CRNC to manage radio links using dedicated resources in a Node B.
- Radio Link Supervision. This function allows the CRNC to report failures and restorations of a Radio Link.
- Compressed Mode Control [FDD]. This function allows the CRNC to control the usage of compressed mode in a Node B.
- Measurements on Dedicated Resources. This function allows the CRNC to initiate measurements in the NodeB. The function also allows the NodeB to report the result of the measurements.
- DL Power Drifting Correction (FDD). This function allows the CRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links.
- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.

The mapping between the above functions and NBAP elementary procedures is shown in the table below.

Table 1: Mapping between functions and NBAP elementary procedures

Function	Elementary Procedure(s)
Cell Configuration Management	a) Cell Setup b) Cell Reconfiguration c) Cell Deletion
Common Transport Channel Management	a) Common Transport Channel Setup b) Common Transport Channel Reconfiguration c) Common Transport Channel Deletion
System Information Management	System Information Update
Resource Event Management	a) Block Resource b) Unblock Resource c) Resource Status Indication
Configuration Alignment	a) Audit Required b) Audit
Measurements on Common Resources	a) Common Measurement Initiation b) Common Measurement Reporting c) Common Measurement Termination d) Common Measurement Failure
Radio Link Management.	a) RL Setup b) RL Addition c) RL Deletion d) Unsynchronised RL Reconfiguration e) Synchronised RL Reconfiguration Preparation f) Synchronised RL Reconfiguration Commit g) Synchronised RL Reconfiguration Cancellation
Radio Link Supervision.	a) RL Failure b) RL Restoration
Compressed Mode Control [FDD]	a) Compressed Mode Preparation b) Compressed Mode Commit c) Compressed Mode Cancellation
Measurements on Dedicated Resources	a) Measurement Request b) Measurement Reporting c) Measurement Termination d) Measurement Failure
DL Power Drifting Correction [FDD]	Downlink Power Control
Reporting of General Error Situations	Error Indication

8 NBAP Procedures

8.1 Elementary Procedures

NBAP procedures are divided into common procedures and dedicated procedures.

- NBAP common procedures are procedures that request initiation of a UE context for a specific UE in Node B or are not related to a specific UE. NBAP common procedures also incorporate logical O&M [1] procedures.
- NBAP dedicated procedures are procedures that are related to a specific UE context in Node B. This UE context is identified by a UE context identity.

The two types of procedures may be carried on separate signalling links.

In the following tables, all EPs are divided into Class 1 and Class 2 EPs:

Table 1: Class 1

Elementary Procedure	Message	Successful Outcome	Unsuccessful Outcome	
		Response message	Response message	Timer
Cell Setup	CELL SETUP REQUEST	CELL SETUP RESPONSE	CELL SETUP FAILURE	
Cell Reconfiguration	CELL RECONFIGURATION REQUEST	CELL RECONFIGURATION RESPONSE	CELL RECONFIGURATION FAILURE	
Cell Deletion	CELL DELETION REQUEST	CELL DELETION RESPONSE		
Common Transport Channel Setup	COMMON TRANSPORT CHANNEL SETUP REQUEST	COMMON TRANSPORT CHANNEL SETUP RESPONSE	COMMON TRANSPORT CHANNEL SETUP FAILURE	
Common Transport Channel Reconfiguration	COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST	COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE	COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE	
Common Transport Channel Deletion	COMMON TRANSPORT CHANNEL DELETION REQUEST	COMMON TRANSPORT CHANNEL DELETION RESPONSE		
Physical Shared Channel Reconfigure [TDD]	PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST	PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE	PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE	
Audit	AUDIT REQUEST	AUDIT RESPONSE		
Block Resource	BLOCK RESOURCE REQUEST	BLOCK RESOURCE RESPONSE	BLOCK RESOURCE FAILURE	
Radio Link Setup	RADIO LINK SETUP REQUEST	RADIO LINK SETUP RESPONSE	RADIO LINK SETUP FAILURE	
System Information Update	SYSTEM INFORMATION UPDATE REQUEST	SYSTEM INFORMATION UPDATE RESPONSE	SYSTEM INFORMATION UPDATE FAILURE	
Common Measurement Initiation	COMMON MEASUREMENT INITIATION REQUEST	COMMON MEASUREMENT INITIATION RESPONSE	COMMON MEASUREMENT INITIATION FAILURE	
Radio Link Addition	RADIO LINK ADDITION REQUEST	RADIO LINK ADDITION RESPONSE	RADIO LINK ADDITION FAILURE	
Radio Link Deletion	RADIO LINK DELETION REQUEST	RADIO LINK DELETION RESPONSE		
Synchronised Radio Link Reconfiguration Preparation	RADIO LINK RECONFIGURATION PREPARE	RADIO LINK RECONFIGURATION READY	RADIO LINK RECONFIGURATION FAILURE	
Unsynchronised Radio Link Reconfiguration	RADIO LINK RECONFIGURATION REQUEST	RADIO LINK RECONFIGURATION RESPONSE	RADIO LINK RECONFIGURATION FAILURE	
Dedicated Measurement Initiation	DEDICATED MEASUREMENT INITIATION REQUEST	DEDICATED MEASUREMENT INITIATION RESPONSE	DEDICATED MEASUREMENT INITIATION FAILURE	
Synchronised Compressed Mode Control Preparation [FDD]	COMPRESSED MODE PREPARE	COMPRESSED MODE READY	COMPRESSED MODE FAILURE	

Table 2: Class 2

Elementary Procedure	Message
Resource Status Indication	RESOURCE STATUS INDICATION
Audit Required	AUDIT REQUIRED INDICATION
Common Measurement Reporting	COMMON MEASUREMENT REPORT
Common Measurement Termination	COMMON MEASUREMENT TERMINATION REQUEST
Common Measurement Failure	COMMON MEASUREMENT FAILURE INDICATION
Synchronised Radio Link Reconfiguration Commit	RADIO LINK RECONFIGURATION COMMIT
Synchronised Radio Link Reconfiguration Cancellation	RADIO LINK RECONFIGURATION CANCELLATION
Radio Link Failure	RADIO LINK FAILURE INDICATION
Radio Link Restoration	RADIO LINK RESTORE INDICATION
Dedicated Measurement Reporting	DEDICATED MEASUREMENT REPORT
Dedicated Measurement Termination	DEDICATED MEASUREMENT TERMINATION REQUEST
Dedicated Measurement Failure	DEDICATED MEASUREMENT FAILURE INDICATION
Downlink Power Control [FDD]	DL POWER CONTROL REQUEST
Compressed Mode Control Commit	COMPRESSED MODE COMMIT
Compressed Mode Control Cancellation	COMPRESSED MODE CANCEL
Unblock Resource	UNBLOCK RESOURCE INDICATION
Error Indication	ERROR INDICATION

8.2 NBAP Common Procedures

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

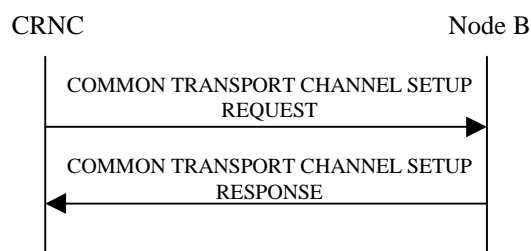


Figure 1: Common Transport Channel Setup procedure, Successful Operation

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.

8.2.1.3 Unsuccessful Operation

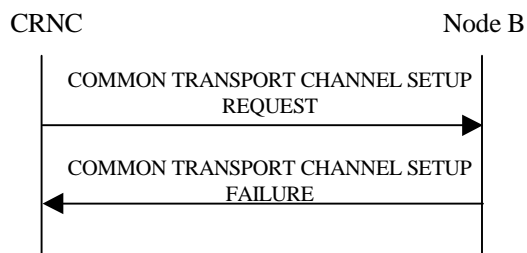


Figure 2: Common Transport Channel Setup procedure, Unsuccessful Operation

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 *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

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

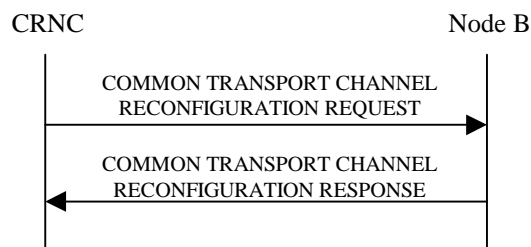


Figure 3: Common Transport Channel Reconfiguration, Successful Operation

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.

8.2.2.3 Unsuccessful Operation

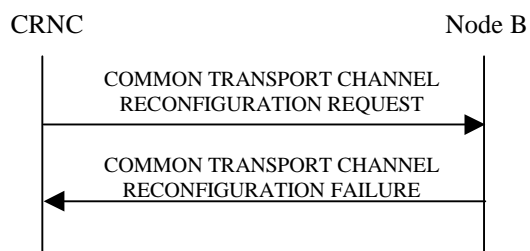


Figure 4: Common Transport Channel Reconfiguration procedure, Unsuccessful Operation

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 *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

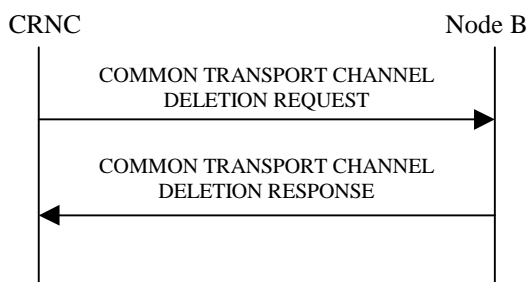


Figure 5: Common Transport Channel Deletion procedure, Successful Operation

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.

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.

8.2.4 Block Resource

8.2.4.1 General

The Node B initiates this procedure to request the CRNC to prohibit the usage of the specified logical resources.

The logical resource that can be blocked is cell.

8.2.4.2 Successful Operation

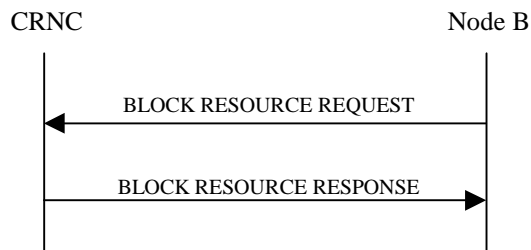


Figure 6: Block Resource procedure, Successful Operation

The procedure is initiated with a BLOCK RESOURCE REQUEST message sent from the Node B to the CRNC.

Upon reception of the BLOCK RESOURCE REQUEST message, the CRNC shall prohibit the use of the indicated logical resources according to the *Blocking Priority Indicator* IE.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates 'High Priority', the CRNC shall prohibit the use of the logical resources immediately.

The BLOCK RESOURCE REQUEST message shall include the *Shutdown Timer* IE when the *Blocking Priority Indicator* IE indicates 'Normal Priority'. The CRNC shall prohibit the use of the logical resources if the resources are idle or immediately upon expiry of the shutdown timer specified in the message. New traffic shall not be allowed to use the logical resources while the CRNC waits for the resources to become idle and once the resources are blocked.

If the *Blocking Priority Indicator* IE in the BLOCK RESOURCE REQUEST message indicates 'Low Priority', the CRNC shall prohibit the use of the logical resources when the resources become idle. New traffic shall not be allowed to use the logical resources while the CRNC waits for the resources to become idle and once the resources are blocked.

If the resources are successfully blocked, the CRNC shall respond with a BLOCK RESOURCE RESPONSE message. Upon reception of the BLOCK RESOURCE RESPONSE message, the Node B may disable [TDD - SCH], [FDD - the Primary SCH, the Secondary SCH, the Primary CPICH, if present the Secondary CPICH(s)] and the Primary CCPCH. The other logical resources in the cell shall be considered as blocked.

Reconfiguration of logical resources and change of System Information can be done, even when the logical resources are blocked.

Interactions with the Unblock Resource procedure:

If the UNBLOCK RESOURCE INDICATION message is received by the CRNC while a Block Resource procedure on the same logical resources is in progress, the CRNC shall cancel the Block Resource procedure and proceed with the Unblock Resource procedure.

If the BLOCK RESOURCE RESPONSE message or the BLOCK RESOURCE FAILURE message is received by the Node B after the Node B has initiated an Unblock Resource procedure on the same logical resources as the ongoing Block Resource procedure, the Node B shall ignore the response to the Block Resource procedure.

8.2.4.3 Unsuccessful Operation

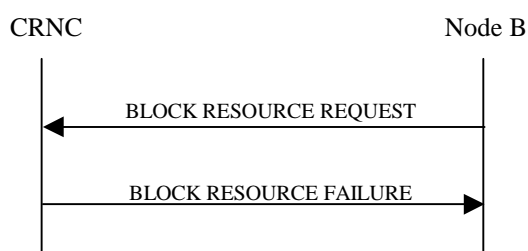


Figure 7: Block Resource procedure, Unsuccessful Operation

The CRNC may reject the request to block the logical resources, in which case the logical resources will remain unaffected and the CRNC shall respond to the Node B with the BLOCK RESOURCE FAILURE message. Upon reception of the BLOCK RESOURCE FAILURE message, the Node B shall leave the logical resources in the state that they were in prior to the start of the Block Resource procedure.

Typical cause values are as follows:

Protocol Cause

- Semantic error

Miscellaneous Cause

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

Radio Network Layer Cause

- Priority transport channel established

8.2.4.4 Abnormal Conditions

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8.2.5 Unblock Resource

8.2.5.1 General

The Node B initiates this procedure to indicate to the CRNC that logical resources are now unblocked.

The logical resource that can be unblocked is cell.

8.2.5.2 Successful Operation



Figure 8: Unblock Resource procedure, Successful Operation

The procedure is initiated with an UNBLOCK RESOURCE INDICATION message sent from the Node B to the CRNC. Node B shall enable [TDD - SCH], [FDD - the Primary SCH, the Secondary SCH, the Primary CPICH, the Secondary CPICH(s) (if present)] and the Primary CCPCH that had been disabled due to the preceding Block Resource procedure before sending the UNBLOCK RESOURCE INDICATION message. Upon reception of the UNBLOCK RESOURCE INDICATION message, the CRNC may permit the use of the logical resources.

When the logical resource indicated is a cell, all associated physical channels and transport channels are unblocked.

8.2.5.3 Abnormal Conditions

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8.2.6 Audit Required

8.2.6.1 General

The Node B initiates this procedure to request the CRNC to perform an audit of the logical resources at the Node B. This procedure is used to indicate a possible misalignment of state or configuration information

8.2.6.2 Successful Operation

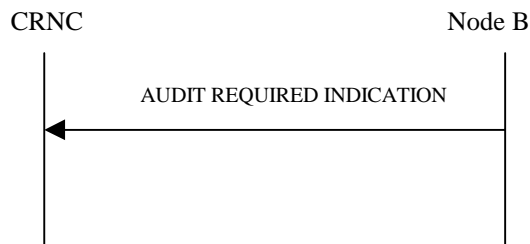


Figure 9: Audit Required procedure, Successful Operation

The procedure is initiated with an AUDIT REQUIRED INDICATION message sent from the Node B to the CRNC.

If the Node B cannot ensure alignment of the state or configuration information, it should initiate the Audit required indication procedure.

Upon receipt of the AUDIT REQUIRED INDICATION message, the CRNC should initiate the Audit procedure.

8.2.6.3 Abnormal Conditions

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8.2.7 Audit

8.2.7.1 General

This procedure is executed by the CRNC to perform an audit of the configuration and status of the logical resources in the Node B. The audit may cause the CRNC to re-sync the Node B to the status of logical resources known by the CRNC, that the Node B can support.

8.2.7.2 Successful Operation

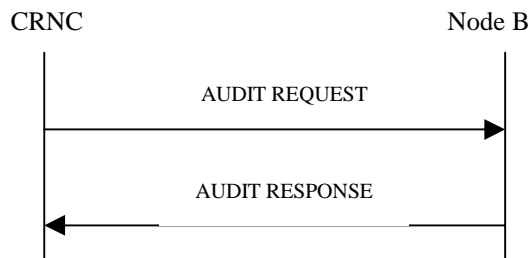


Figure 10: Audit procedure, Successful Operation

The procedure is initiated with an AUDIT REQUEST message sent from the CRNC to the Node B.

If a *Configuration Generation ID* IE for a cell can not be trusted, the Node B shall set this *Configuration Generation ID* IE = '0'.

The Node B shall include in the AUDIT RESPONSE message a *Local Cell Information* IE group for each local cell present in the Node B. The Node B shall include the *Maximum DL Power Capability* IE if the value is known by the Node B.

The Node B shall include the Node B internal resource capability and consumption laws with the "NodeB Information IE group.". If the "UL Capacity Credit" IE is not present, then the internal resource capabilities of the Node B are modelled as shared resources between Uplink and Downlink.

The Node B shall include for each local cell present in the node B the Node B internal resource capability and consumption laws within the "Local Cell Information IE group". If the "UL Capacity Credit" IE is not present, then the internal resource capabilities of the local cell are modelled as shared resources between Uplink and Downlink.

The Node B shall include in the AUDIT RESPONSE message a *Cell Information* IE group for each cell in the Node B and information about all common transport channels and all common physical channels for each cell. Node B shall also include in the AUDIT RESPONSE message, a *Communication Control Port Information* IE group for each communication control port in the Node B.

For each missing cell, a configuration error has occurred and recovery actions should be taken by the CRNC.

8.2.7.3 Unsuccessful Operation

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8.2.7.4 Abnormal Conditions

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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

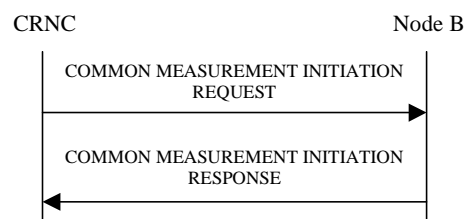


Figure 11: Common Measurement Initiation procedure: Successful Operation

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 = one divided by 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.

8.2.8.3 Unsuccessful Operation

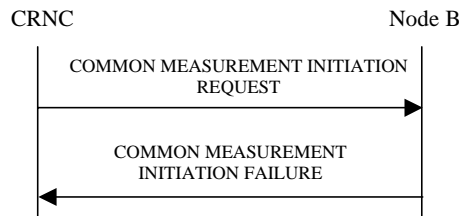


Figure 12: Common Measurement Initiation procedure: Unsuccessful Operation

If the requested measurement cannot be initiated, the Node B shall send a COMMON MEASUREMENT INITIATION FAILURE message sent over the Node B control port. The message shall include the same Measurement Id that was used in the COMMON MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause

- Measurement not supported for the object.

8.2.8.4 Abnormal Conditions

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8.2.9 Common Measurement Reporting

8.2.9.1 General

This procedure is used by a Node B to report the result of measurements requested by the CRNC with the Common Measurement Initiation procedure.

8.2.9.2 Successful Operation

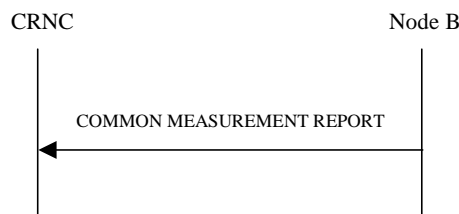


Figure 13: Common Measurement Reporting procedure: Successful Operation

If the requested measurement reporting criteria are met, the Node B shall initiate a Measurement Reporting procedure. The COMMON MEASUREMENT REPORT message shall use the Node B control port. Unless specified below, the meaning of the parameters are given in other specifications.

The *Common Measurement Id* IE shall be set to the Common Measurement Id provided by the CRNC when initiating the measurement with the Common Measurement Initiation procedure.

8.2.9.3 Abnormal Conditions

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8.2.10 Common Measurement Termination

8.2.10.1 General

This procedure is used by the CRNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

8.2.10.2 Successful Operation



Figure 14: Common Measurement Termination procedure: Successful Operation

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

Upon reception, the Node B shall terminate reporting of measurements corresponding to the Common Measurement Id.

8.2.10.3 Abnormal Conditions

-

8.2.11 Common Measurement Failure

8.2.11.1 General

This procedure is used by the Node B to notify the CRNC that a measurement previously requested by the Measurement Initiation procedure can no longer be reported.

8.2.11.2 Successful Operation



Figure 15: Common Measurement Failure procedure: Successful Operation

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from the Node B to the CRNC using the Node B control port, to inform the CRNC that a previously requested measurement no longer can be reported.

8.2.11.3 Abnormal Conditions

-

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

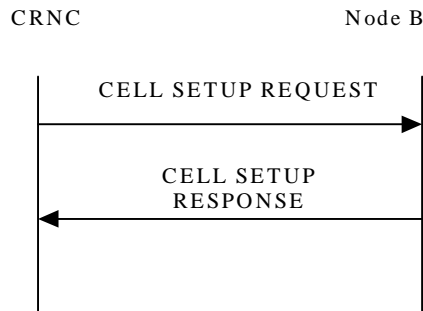


Figure 16: Cell Setup procedure: Successful Operation

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.]

8.2.12.3 Unsuccessful Operation

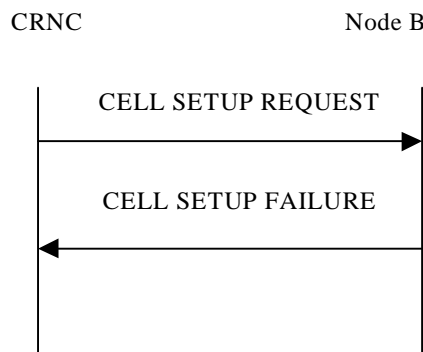


Figure 17: Cell Setup procedure: Unsuccessful Operation

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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8.2.13 Cell Reconfiguration

8.2.13.1 General

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

8.2.13.2 Successful Operation

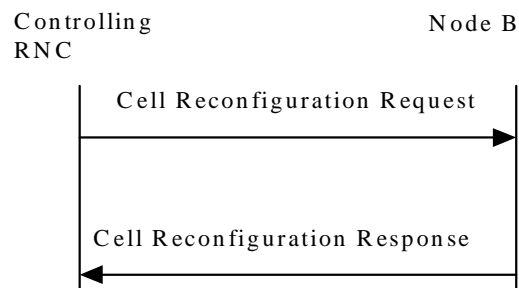


Figure 18: Cell Reconfiguration procedure: Successful Operation

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.

8.2.13.3 Unsuccessful Operation

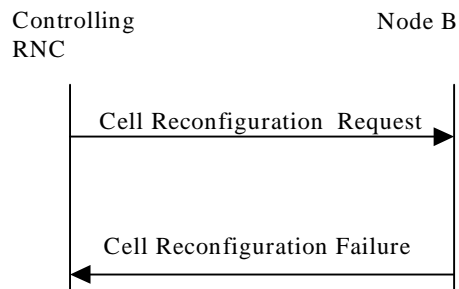


Figure 19: Cell Reconfiguration procedure: Unsuccessful Operation

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

In this case, the Node B shall keep the old configuration of the cell and the Configuration Generation ID shall not be changed in Node B.

The Cause IE shall be set to an appropriate value.

(Note.: Remark received that at WG3#7, in tdoc D63 (secretary minutes), it was stated that the failure message should be added with a list of cause values, with one cause value per failed reconfiguration item. It is not clear what functional impact this have and how it should be coded in the CELL RECONFIGURATION FAILURE message.)

8.2.13.4 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

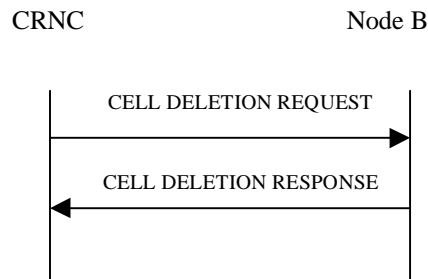


Figure 10: Cell Deletion procedure: Successful Operation

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.

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

8.2.14.3 Unsuccessful Operation

-

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.

8.2.15 Resource Status Indication

8.2.15.1 General

This procedure is used in the following cases:

1. When a Local Cell becomes Existing at the Node B, it shall be made available to the RNC
2. When a Local Cell is to be deleted in Node B, i.e. become Not Existing, the Local Cell shall be withdrawn from the CRNC
3. When the capabilities of the Local Cell change at the Node B
4. When a cell has changed its capability and/or its resource operational state at Node B
5. When common physical channels and/or common transport channels have changed their capabilities at a Node B
6. When a communication control port changed its resource operational state at the Node B
7. When a Node B has changed its resource capability at the Node B and/or the local cells

Each of the above cases shall trigger a Resource Status Indication procedure and the RESOURCE STATUS INDICATION message shall contain the logical resources affected for that case and the cause value when applicable.

8.2.15.2 Successful Operation

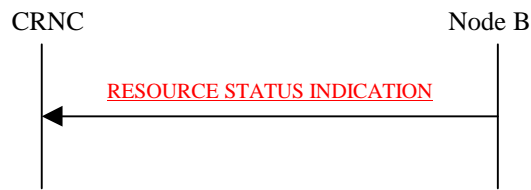


Figure 21: Resource Status Indication procedure: Successful Operation

The procedure is initiated with a RESOURCE STATUS INDICATION message sent from the Node B to CRNC.

When a Local Cell becomes Existing at the Node B, the Node B shall make it available to the CRNC by sending a RESOURCE STATUS INDICATION message with the Local Cell Id IE and the Add/Delete Indicator IE set equal to 'Add'.

When a Local Cell is to be deleted in Node B, i.e. become Not Existing, the Node B shall withdraw the Local Cell from the CRNC by sending a RESOURCE STATUS INDICATION message with the Local Cell Id IE and the Add/Delete Indicator IE set equal to 'Delete'. The Node B shall not withdraw a previously configured cell at the Node B that the CRNC had configured using the Cell Setup procedure, until the CRNC has deleted that cell at the Node B using the Cell Delete procedure.

When the capabilities of a Local Cell changes at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message with the Local Cell Id. The Add/Delete Indicator IE shall not be included in the message. The Cause IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

When the capabilities and/or resource operational state of a cell changes at the Node B, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message with the C-ID IE. The Cause IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

When the capabilities and/or resource operational state of common physical channels and/or common transport channels have changed, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message with the logical resource. The Cause IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

When the resource operational state of a communication control port has changed, the Node B shall report the new resource operational state by sending a RESOURCE STATUS INDICATION message with the Communication Control Port ID IE. The Cause IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

When the resource capabilities of a Node B change at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message with the NodeB Information IE group. The Cause IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value. If the RESOURCE STATUS INDICATION message contains both the "DL or Global Capacity Credit" and the "UL Capacity Credit" then the internal resource capabilities of the Node B are modelled independently in the Uplink and Downlink direction. If the "UL Capacity Credit" IE is not present, then the internal resource capabilities of the Node B are modelled as shared resources between Uplink and Downlink.

8.2.15.3 Abnormal Conditions

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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

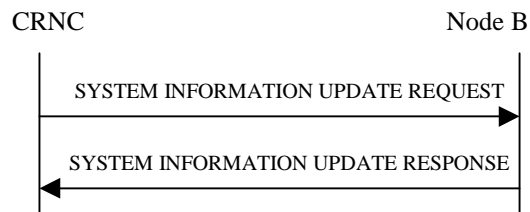


Figure 22: System Information Update procedure: Successful Operation

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

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 IE and SIB SG POS IE such that:

$$- \text{SFN mod IB_SG_REP} = \text{IB_SG_POS}$$

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 [\[18\]TS-25.334](#).

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.

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

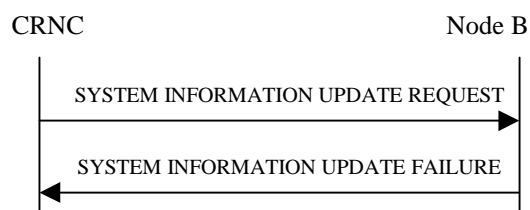


Figure 23: System Information Update procedure: Unsuccessful Operation

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. 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.

Possible cause values are:

Radio Network Layer Cause

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

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

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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

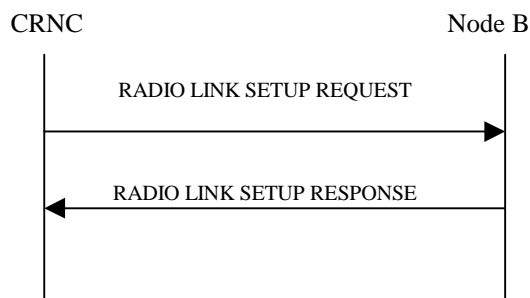


Figure 11: Radio Link Setup procedure: Successful Operation

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. 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][16]. 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][16].

[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][16]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [25.427][16]. 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][16].

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 [16]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

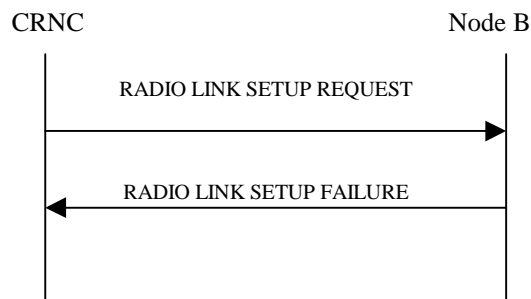


Figure 12: Radio Link Setup procedure: Unsuccessful Operation

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]

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

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

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8.2.18 Physical Shared Channel Reconfiguration [TDD]

8.2.18.1 General

This procedure is used for handling PDSCH Sets and PUSCH Sets in the Node B, i.e.

- Adding new PDSCH Sets and/or PUSCH Sets,
- Modifying these, and
- Deleting them.

8.2.18.2 Successful Operation

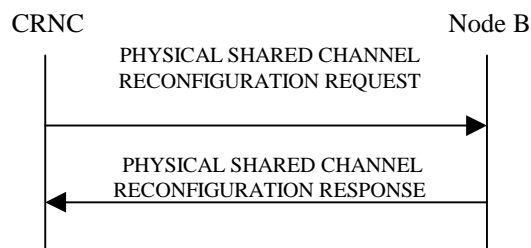


Figure 26: Physical Shared Channel Reconfiguration: Successful Operation

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

In the successful case, the Node B shall add, modify and delete the PDSCH Sets and PUSCH Sets in the Common Transport Channel data base, as requested in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST, and shall make these available to all the current and future DSCH and USCH transport channels; and shall respond with PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE:

8.2.18.3 Unsuccessful Operation

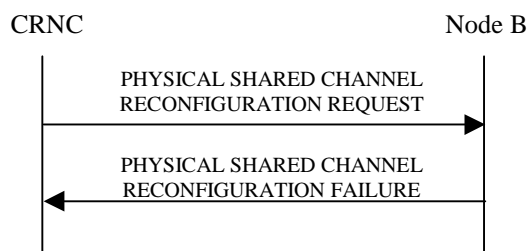


Figure 137: Physical Shared Channel Reconfiguration procedure: Unsuccessful Operation

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 PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message. The *Cause Value* IE shall be set to an appropriate value.

If the configuration was unsuccessful, the Node B shall respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message:

Typical cause values are as follows:

Radio Network Layer Cause

- Cell not available
- Node B Resources unavailable

Transport Layer Cause

- Transport Resources Unavailable

Protocol Cause

- Semantic error

Miscellaneous Cause

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

8.2.18.4 Abnormal Conditions

If the C-ID in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message is not existing in the Node B, it shall respond with the PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE message with the *Cause* IE = 'unknown C-ID'.

8.3 NBAP Dedicated Procedures

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

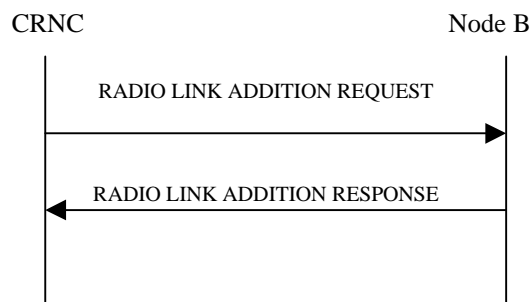


Figure: 28 Radio Link Addition procedure: Successful Operation

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 [16]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

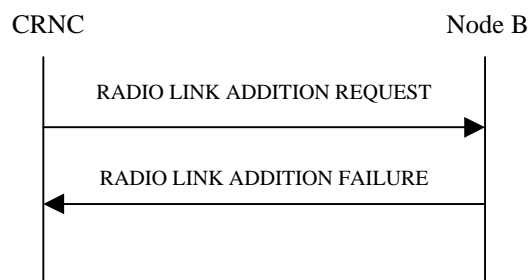


Figure 29: Radio Link Addition procedure: Unsuccessful Operation

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.

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

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

-

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

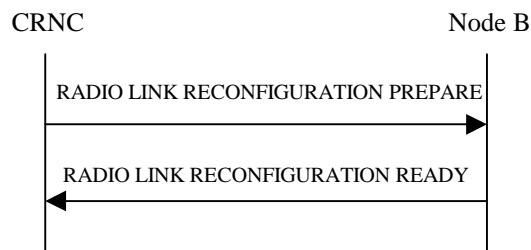


Figure 30: Synchronised Radio Link Reconfiguration procedure, Successful Operation

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][16]. 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][16].

[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][16]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [25.427][16]. 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][16].

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-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.

8.3.2.3 Unsuccessful Operation

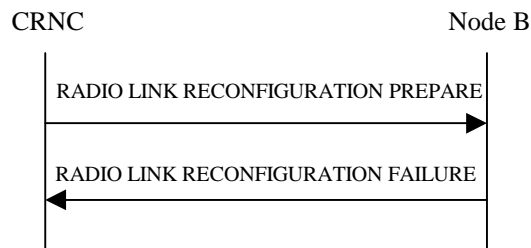


Figure 31: Synchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

If the Node B cannot reserve the necessary resources for all the new DCHs of one set of coordinated DCHs requested to be added, it shall regard the Synchronised Radio Link Reconfiguration procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration procedure fails for one or more RLs the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

[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 RECONFIGURATION FAILURE message].

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

Transport Layer Cause

- Transport Resources Unavailable

Protocol Cause

- Semantic error

Miscellaneous Cause

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

8.3.2.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of coordinated DCHs is requested to be deleted, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

8.3.3 Synchronised Radio Link Reconfiguration Commit

8.3.3.1 General

This procedure is used to order the Node B to switch to the new configuration for the Radio Link(s) within the Node B, previously prepared by the Synchronised Radio Link Preparation procedure.

The message shall use the Communication Control Port assigned for this Node B Communication Context.

8.3.5.2 Successful Operation

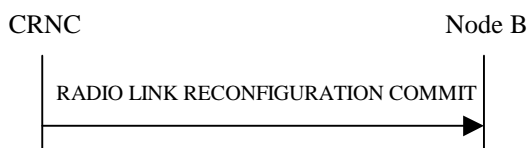


Figure 32: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation

The Node B shall switch to the new configuration previously prepared by the Synchronised RL Reconfiguration procedure at the CFN requested by the CRNC when receiving the RADIO LINK RECONFIGURATION COMMIT message from the CRNC. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see chapter 3.1.

8.3.5.3 Abnormal Conditions

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8.3.4 Synchronised Radio Link Reconfiguration Cancellation

8.3.4.1 General

This procedure is used to order the Node B to release the new configuration for the Radio Link(s) within the Node B, previously prepared by the Synchronised Radio Link Preparation procedure.

The message shall use the Communication Control Port assigned for this Node B Communication Context.

8.3.4.2 Successful Operation

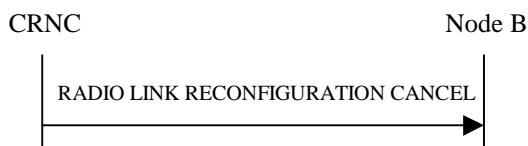


Figure 33: Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation

The Node B shall release the new configuration previously prepared by the Synchronised RL Reconfiguration Preparation procedure and continue using the old configuration when receiving the RADIO LINK RECONFIGURATION CANCEL message from the CRNC. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see chapter 3.1.

8.3.4.3 Abnormal Conditions

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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

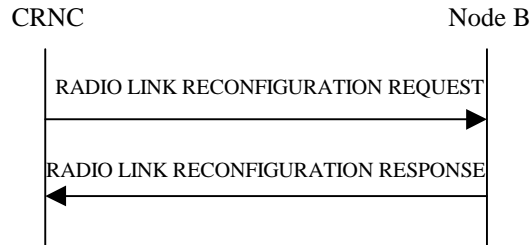


Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation

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][16]. 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][16].]

[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][16]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [25.427][16]. 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][16].]

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-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.

8.3.5.3 Unsuccessful Operation

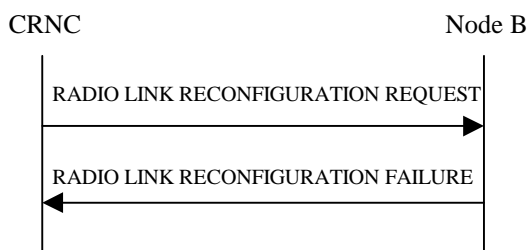


Figure 35: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

If the Node B cannot allocate the necessary resources for all the new DCHs of one set of coordinated, DCHs requested to be set-up it shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsynchronised Radio Link Reconfiguration procedure fails for one or more Radio Link(s) the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

[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 RECONFIGURATION FAILURE message].

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

Transport Layer Cause

- Transport Resources Unavailable

Protocol Cause

- Semantic error

Miscellaneous Cause

- O&M Intervention
- Unspecified
- Control processing overload

- HW failure

8.3.5.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of coordinated DCHs is requested to be deleted, the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

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

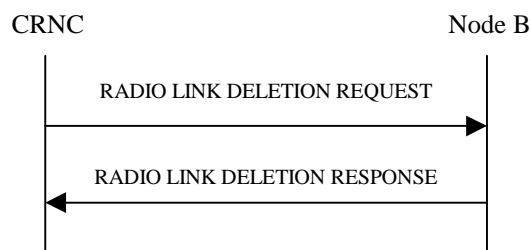


Figure 36: Radio Link Deletion procedure: Successful Operation

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.

8.3.6.3 Unsuccessful Operation

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8.3.6.4 Abnormal Conditions

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8.3.7 Downlink Power Control [FDD]

8.3.7.1 General

The purpose of this procedure is to balance the DL transmission powers of one or more Radio Links used for the related RRC connection within the Node B. The Downlink Power Control procedure may be initiated by the CRNC at any time when the Node B communication context exists, irrespective of other ongoing CRNC initiated dedicated NBAP procedures towards this Node B communication context. The only exception occurs when the CRNC has requested the deletion of the last RL via this Node B, in which case the Downlink Power Control procedure shall no longer be initiated.

8.3.7.2 Successful Operation



Figure 37: Downlink Power Control procedure: Successful Operation

The procedure is initiated by the CRNC sending a DL POWER CONTROL REQUEST message to the Node B.

The *Power Adjustment Type* IE defines the characteristic of the power adjustment.

If the value of the *Power Adjustment Type* IE is *Common*, the Node B shall perform the power adjustment (see below) for all radio links associated with the context identified by the *Node B Communication Context Id* IE using a common DL reference power level.

If the value of the *Power Adjustment Type* IE is *Individual*, the Node B shall perform the power adjustment (see below) for all radio links addressed in the message using the given DL Reference Powers per RL.

The Node B performs the power balancing by using the received power.

If the value of the *Power Adjustment Type* IE is *None*, the Node B shall suspend on going power adjustments for all radio links for the UE context.

Power Adjustment

The Node B performs the power balancing by using the received *DL Reference Power* IE as a reference for adjusting the applied DL power.

The adjustment of the power shall be done with constrains given by the included parameters *Max Adjustment Step* IE and *Adjustment Period* IE. The Power adjustment is repeated for every adjustment period.

Node B shall suspend on going power adjustment operations at the reception of a new DL POWER CONTROL REQUEST message, and then performs the adjustment based on the new parameters.

8.3.7.3 Abnormal Conditions

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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

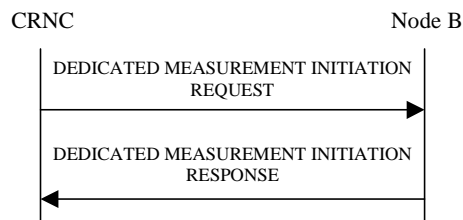


Figure 38: Dedicated Measurement Initiation procedure: Successful Operation

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 = one divided by 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.

8.3.8.3 Unsuccessful Operation

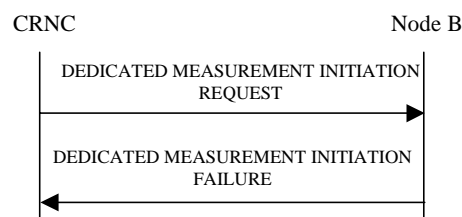


Figure 39: Dedicated Measurement Request procedure: Unsuccessful Operation

If the requested measurement cannot be initiated, the Node B shall send a DEDICATED MEASUREMENT INITIATION FAILURE 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 DEDICATED MEASUREMENT INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer cause

- Measurement not supported for the object

Miscellaneous Cause

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

8.3.8.4 Abnormal Conditions

-

8.3.9 Dedicated Measurement Reporting

8.3.9.1 General

This procedure is used by the Node B to report the result of measurements requested by the CRNC with the Dedicated Measurement Initiation procedure. The Node B may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link, as long as the Node B communication context exists.

8.3.9.2 Successful Operation

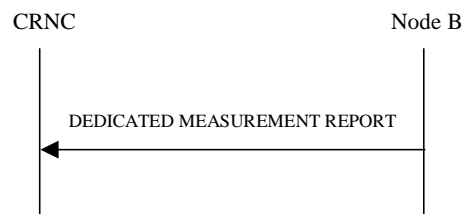


Figure 40: Dedicated Measurement Reporting procedure: Successful Operation

If the requested measurement reporting criteria are met, the Node B shall initiate a Measurement Reporting procedure. The DEDICATED MEASUREMENT REPORT message shall use the communication control port assigned to the Node B communication context. Unless specified below, the meaning of the parameters are given in other specifications.

The *Dedicated Measurement Id* IE shall be set to the Dedicated Measurement Id provided by the CRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

8.3.9.3 Abnormal Conditions

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8.3.10 Dedicated Measurement Termination

8.3.10.1 General

This procedure is used by the CRNC to terminate a measurement previously requested by the Dedicated Measurement Initiation procedure.

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

8.3.10.2 Successful Operation

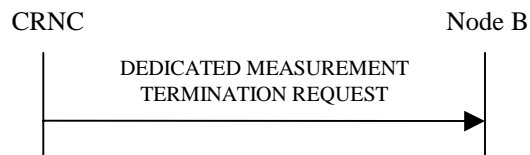


Figure 41: Dedicated Measurement Termination procedure: Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT TERMINATION 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 terminate reporting of measurements corresponding to the received Dedicated Measurement Id.

8.3.10.3 Abnormal Conditions

-

8.3.11 Dedicated Measurement Failure

8.3.11.1 General

This procedure is used by the Node B to notify the CRNC that a measurement previously requested by the Measurement Initiation procedure can no longer be reported. The Node B is allowed to initiate the DEDICATED MEASUREMENT FAILURE INDICATION message at any time after having sent the RADIO LINK SETUP RESPONSE message, as long as the Node B communication context exists.

8.3.11.2 Successful Operation



Figure 42: Dedicated Measurement Failure procedure: Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the Node B to the CRNC using the communication control port assigned to the Node B communication context, to inform the CRNC that a previously requested measurement no longer can be reported.

8.3.11.3 Abnormal Conditions

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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 [\[TS25.214 and TS25.224\]\[10\] and \[21\]](#).

[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

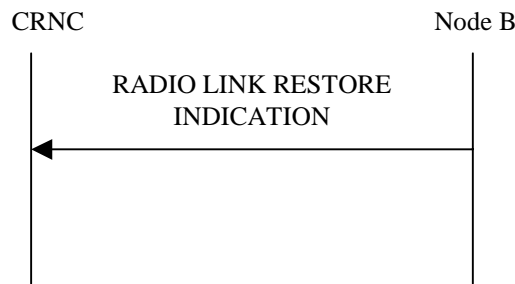


Figure 44: Radio Link Restoration procedure: Successful Operation

The Node B shall send the RADIO LINK RESTORE INDICATION message to the CRNC when indicated by the UL sync detection algorithm defined in [10 and [21][TS25.214 and TS25.224].

[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

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8.3.14 Compressed Mode Preparation [FDD]

8.3.14.1 General

The Compressed Mode Preparation procedure is used to prepare the compressed mode in the NodeB for one UE-UTRAN connection.

The Compressed Mode Preparation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

8.3.14.2 Successful Operation

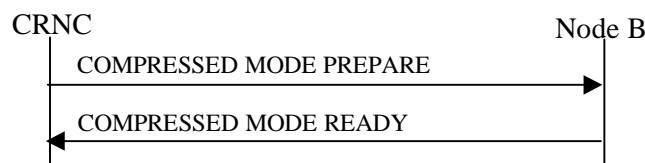


Figure 45 Compressed Mode Preparation procedure, Successful Operation

The Compressed Mode Preparation procedure is initiated by the CRNC by sending the COMPRESSED MODE PREPARE message to the Node B.

If the *PD* IE is set to 'infinite', the Node B shall continue with the compressed mode until it is requested to terminate the compressed mode.

If the proposed modifications are allowed by the Node B and the Node B has successfully initialised the required resources, the Node B shall respond to the CRNC with COMPRESSED MODE READY message.

If the *Compressed Mode Method* IE is set to 'None', the Node B shall terminate the compressed mode even if the COMPRESSED MODE PREPARE message was received before the end of the compressed mode period.

8.3.14.3 Unsuccessful Operation

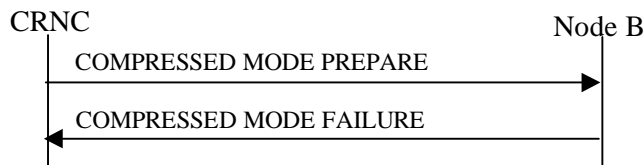


Figure 46: Compressed Mode Preparation procedure, Unsuccessful Operation

If the requested reconfiguration fails for one or more RLS the Node B shall abort the procedure and send the COMPRESSED MODE FAILURE message to the CRNC, indicating the reason for failure.

Typical cause values are:

Radio Network Layer Causes:

- Requested Configuration not Supported

Miscellaneous Causes:

- Not enough User Plane Processing Resources

8.3.14.4 Abnormal Conditions

-

8.3.15 Compressed Mode Commit [FDD]

8.3.15.1 General

The Compressed Mode Commit procedure is used to activate the compressed mode in the Node B for one UE-UTRAN connection.

The Compressed Mode Commit procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

8.3.15.2 Successful Operation



Figure 47: Compressed Mode Commit procedure, Successful Operation

The Node B shall initiate the compressed mode in accordance with the settings prepared by the Compressed Mode Preparation procedure at the CFN requested by the CRNC when receiving the COMPRESSED MODE COMMIT message from the CRNC.

8.3.15.3 Abnormal Conditions

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8.3.16 Compressed Mode Cancellation [FDD]

8.3.16.1 General

The Compressed Mode Cancellation procedure is used to cancel the compressed mode in the Node B for one UE-UTRAN connection.

The Compressed Mode Cancellation procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

8.3.16.2 Successful Operation

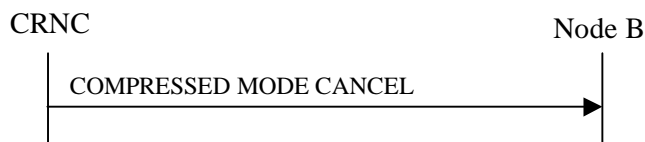


Figure 48: Compressed Mode Cancellation procedure, Successful Operation

The Node B shall abort the compressed mode if it receives the COMPRESSED MODE CANCEL message.

8.3.16.3 Abnormal Conditions

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8.4 Error Handling Procedures

8.4.1 Error Indication

8.4.1.1 General

The Error Indication procedure is initiated by a node to report detected errors in one incoming message, provided they cannot be reported by an appropriate failure message.

8.4.1.2 Successful Operation

When the conditions defined in chapter 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node.

When the ERROR INDICATION message is sent from a Node B to its CRNC, the CRNC Communication Context ID IE shall be included in the message if available. When the ERROR INDICATION message is sent from a CRNC to a Node B, the Node B Communication Context ID IE shall be included in the message if available.

Typical cause values for the ERROR INDICATION message are:

Protocol Causes:

- Transfer Syntax Error
- Abstract Syntax Error ('Reject)
- Abstract Syntax Error (Ignore and Notify)
- Message not Compatible with Receiver State
- Unspecified

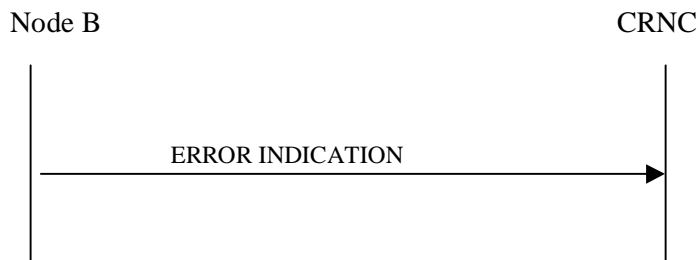


Figure 49: Error Indication procedure (Node B to CRNC): Successful Operation

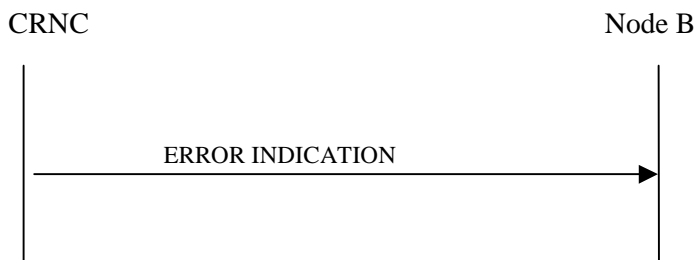


Figure 50: Error Indication procedure (CRNC to Node B): Successful Operation

8.4.1.3 Abnormal Conditions

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9 Elements for NBAP communication

9.1 Message functional definition and content

9.1.1 Message Contents

9.1.1.1 Presence

An information element can be of the following *types*:

M	The information element is mandatory, i.e. always present in the message
O	The information element is optional, i.e. may or may not be present in the message independently on the presence or value of other information elements in the same message
C	The presence of the information element is conditional to the presence or to the value of another information element, as reported in the table below the message containing the explanation of the condition

In case of an information element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. The presence field of the information elements inside one group defines if the information element is mandatory, optional or conditional if the group is present.

9.1.1.2 Criticality

Each information element or Group of information elements may have a criticality information applied to it. Following cases are possible:

–	No criticality information is applied explicitly.
YES	Criticality information is applied. 'YES' is usable only for non-repeatable information elements.
GLOBAL	The information element and all its repetitions together have one common criticality information. 'GLOBAL' is usable only for repeatable information elements.
EACH	Each repetition of the information element has its own criticality information. It is not allowed to assign different criticality values to the repetitions. 'EACH' is usable only for repeatable information elements.

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
CHOICE common physical channel to be configured					YES	ignore
>Secondary CCPCH					YES	reject
>Secondary CCPCH		1				
>>Common Physical Channel ID	M				–	
>>FDD S-CCPCH Offset	M			Corresponds to [7]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				–	
>>FACH Parameters	C-choiceCh	0..<maxnoofFACHs>			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.	–	
>>PCH Parameters	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		–	
>>>PICH Parameters		1			–	
>>>>Common Physical Channel ID	M				–	
>>>>DL Scrambling	M				–	

Code						
>>>>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..<maxSF>			-	
>>>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.
MaxSF	Maximum number of SF for a PRACH

9.1.2.2 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
CHOICE <i>common physical channels to be configured</i>					YES	ignore
<i>Secondary CCPCHs</i>					YES	reject
>CCTrCH ID	M			For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>TFCS	M			For DL CCTrCH supporting one or several Secondary CCPCHs	–	
> Secondary CCPCH		<i>1..<maxnoofS - CCPCHs></i>			GLOBAL	reject
>>Common physical channel ID	M				–	
>>TDD Channelisation Code	M				–	
>>Time Slot	M				–	
>>Burst Type	M			Long or short midamble	–	
>>Midamble shift	M				–	
>>TDD Physical Channel Offset	M				–	
>>Repetition Period	M				–	
>>Repetition Length	M				–	
>>S-CCPCH Power	M		DL Power		–	
>> FACH	C ChoiceCh	<i>0..<maxnoofFACHs></i>			GLOBAL	reject
>>>Common transport channel ID	M				–	
>>>Transport Format Set	M			For the DL.	–	
>>>ToAWS	M				–	
>>>ToAWE	M				–	
>>> PCH	C ChoiceCh	<i>0..1</i>			GLOBAL	reject
>>>Common transport	M				–	

channel ID						
>>>Transport Format Set	M			For the DL.	-	
>>>ToAWS	M				-	
>>>ToAWE	M				-	
>>>PICH Parameters		1			-	
>>>>Common Physical Channel ID	M				-	
>>>>TDD Channelisation Code	M				-	
>>>>Time Slot	M				-	
>>>>Burst type	O				-	
>>>>Midamble shift	M				-	
>>>>TDD Physical Channel Offset	M				-	
>>>>Repetition period	M				-	
>>>>Repetition length	M				-	
>>>>Paging Indicator Length	M				-	
>>>>PICH Power	M		DL Power		YES	reject
<i>PRACH</i>						
>PRACH	M	1				
>>Common physical channel ID	M					
>>Time Slot	M					
>>TDD Channelisation Code	M					
>>Max PRACH Midamble Shifts	O					
>>PRACH Midamble	M					
>>RACH					-	
>>>Common transport channel ID	M				-	

Condition	Explanation
<i>ChoiceCh</i>	One of the channels FACH or PCH or both must be present.

Range bound	Explanation
<i>MaxnoofS-CCPCHs</i>	Maximum number of Secondary CCPCHs per CCTrCH.
<i>MaxnoofCCTrCHs</i>	Maximum number of CCTrCHs that can be defined in a cell.
<i>MaxnoofFACHs</i>	Maximum number of FACHs that can be defined on a Secondary CCPCH.

9.1.3 COMMON TRANSPORT CHANNEL SETUP RESPONSE

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				–	
CHOICE <i>common transport channel configured</i>					YES	ignore
>FACH					YES	ignore
>FACH Parameters	C-choiceCh	0..<maxnoofFACHs>			–	
>>Common Transport Channel ID	M				–	
>>Binding ID	M				–	
>>Transport layer address	M				–	
>PCH					YES	ignore
>PCH Parameters	C-choiceCh	0..1			–	
>>Common transport channel ID	M				–	
>>Binding ID	M				–	
>>Transport layer address	M				–	
>RACH					YES	ignore
>RACH parameters		1				
>>Common transport channel ID	M				–	
>>Binding ID	M				–	
>>Transport layer address	M				–	
Criticality Diagnostics	O				YES	ignore

Condition	Explanation
<i>ChoiceCh</i>	One of the channels FACH or PCH or both must be present.

Range bound	Explanation
<i>MaxnoofFACHs</i>	Maximum number of FACHs that can be defined on a Secondary CCPCH[FDD] / a group of Secondary CCPCHs [TDD].

9.1.4 COMMON TRANSPORT CHANNEL SETUP FAILURE

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				–	–
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

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
FACH parameters		<i>0..<maxFACHCell></i>			GLOBAL	reject
>Common Transport Channel ID	M				–	
>Max FACH Power	O		DL Power	Maximum allowed power on the FACH.	–	
>ToAWS	O				–	
>ToAWE	O				–	
PCH Parameters		<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				–	
PICH Parameters		<i>0..1</i>			YES	reject
>Common Physical Channel ID	M				–	
>PICH Power	M		DL Power	Power to be used on the PICH.	–	
PRACH Parameters		<i>0..<maxno ofPRACHs></i>			GLOBAL	reject
>Common Physical Channel ID	M				–	
>Preamble Signatures	M				–	
>Allowed Slot Format Information		<i>0..<maxSF></i>			–	
>>RACH Slot Format	M				–	
>RACH Sub Channel Numbers	O				–	
AICH Parameters		<i>0..<maxno ofPRACHs></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
maxnoofPRACHs	Maximum number of PRACHs and AICHs that can be defined in a Cell
<i>maxSF</i>	Maximum number of SF for a PRACH

9.1.5.2 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
Secondary CCPCH parameters		0 .. 1			YES	reject
>CCTrCH ID	M			For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>Secondary CCPCHs to be configured		0..<MaxnoofS CCPCHs>			GLOBAL	reject
>>Common physical channel ID	M				–	
>>S-CCPCH Power	M			DL power	–	
PICH Parameters		0 .. 1			YES	reject
>Common physical channel ID	M				–	
>PICH Power	M				–	
FACH parameters		0..<Maxno ofFACHs>			GLOBAL	reject
>Common Transport Channel ID	M				–	
>ToAWS	O				–	
>ToAWE	O				–	
PCH parameters		0 .. 1			GLOBAL	reject
>Common Transport Channel ID	M				–	
>ToAWS	O				–	
>ToAWE	O				–	

Range bound	Explanation
<i>MaxFACHCell</i>	Maximum number of FACHs that can be repeated in a Cell

9.1.6 COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.7 COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE

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				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.8 COMMON TRANSPORT CHANNEL DELETION 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
Common Physical Channel ID	M			Indicates the Common Physical Channel for which the Common Transport Channels (together with the Common Physical Channel) shall be deleted.	YES	reject
Configuration Generation ID	M				YES	reject

9.1.9 COMMON TRANSPORT CHANNEL DELETION RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.10 BLOCK RESOURCE 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
Blocking Priority Indicator	M				YES	reject
Shutdown Timer	C- <i>BlockNormal</i>				YES	reject

Condition	Explanation
BlockNormal	The information element is present when the Blocking Priority Indicator IE indicates 'Normal Priority'.

9.1.11 BLOCK RESOURCE RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.12 BLOCK RESOURCE FAILURE

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				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.13 UNBLOCK RESOURCE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction ID	M				–	
C-ID	M				YES	ignore

9.1.14 AUDIT REQUIRED INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction ID	M				–	

9.1.15 AUDIT 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				–	

9.1.16 AUDIT RESPONSE

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				–	
Node B Information		1				
>DL or Global Capacity Credit	M					
>UL Capacity Credit	O					
>Common Channels Capacity Consumption Law	M					
>Dedicated Channels Capacity Consumption Law	M					
Cell Information		0.. < maxCellin NodeB >			EACH	ignore
>C-ID	M				–	
>Configuration Generation ID	M					
>Resource Operational State	M				–	
>Availability Status	M				–	
>Local Cell ID	M			The local cell that the cell is configured on		
>Maximum DL Power Capability	FFS				–	
>Minimum Spreading Factor	FFS				–	
>Primary SCH Information		0..1			YES	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>Secondary SCH Information		0..1			YES	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>Primary CPICH Information		0..1			YES	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>Secondary CPICH Information		0..<maxSC PICHCell>			EACH	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	

>>Availability Status	M				–	
>Primary CCPCH Information		0..1			YES	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>BCH Information		0..1			YES	ignore
>>Common Transport Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>Secondary CCPCH Information		0..<maxSC CPCHCell >			EACH	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>PCH Information		0..1			EACH	ignore
>>Common Transport Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>PICH Information		0..1			YES	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>FACH Information		0..<maxFA CHCell>			EACH	ignore
>>Common Transport Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>PRACH Information		0..<maxPR ACHCell>			EACH	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>RACH Information		0..<maxRA CHCell>			EACH	ignore
>>Common Transport Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>AICH Information		0..<maxRA CHCell>			EACH	ignore
>>Common Physical Channel ID	M				–	

>>Resource Operational State	M				-	
>>Availability Status	M				-	
>SCH Information		0..1			YES	ignore
>>Common Transport Channel ID	M				-	
>>Resource Operational State	M				-	
>>Availability Status	M				-	
Communication Control Port Information		0.. <maxCCPi nNodeB>			EACH	ignore
>Communication Control Port ID	M				-	
>Resource Operational State	M				-	
>Availability Status	M				-	
Local Cell Information		0.. <maxLocal CellinNode B>			EACH	ignore
>Local Cell ID	M				-	
>DL or Global Capacity Credit	M					
>UL Capacity Credit	O					
>Common Channels Capacity Consumption Law	M					
>Dedicated Channels Capacity Consumption Law	M					
>Maximum DL Power Capability	O				-	
Criticality diagnostics	O				YES	ignore

Range bound	Explanation
maxCellinNodeB	Maximum number of Cell that can be configured in Node B
maxCCPinNodeB	Maximum number of communication control ports that can exist in the Node B
maxLocalCellinNodeB	Maximum number of Local Cells that can exist in the Node B
maxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.
maxSCCPCHCell	Maximum number of Secondary CCPCH that can be defined in a Cell.
maxFACHCell	Maximum number of FACHes that can be defined in a Cell

9.1.17 COMMON MEASUREMENT INITIATION 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				–	
Measurement Id	M				YES	reject
Common Measurement Object Type	M				YES	reject
CHOICE Common Measurement Object Type					YES	ignore
>"Cell"					YES	reject
>>C-ID	M				–	
>>Time Slot	O			TDD only	–	
>"RACH"					YES	reject
>>C-ID	M				–	
>>Common transport channel ID	M				–	
Common Measurement Type	M				YES	reject
Measurement Filter Coefficient	O				YES	reject
Report Characteristics	M				YES	reject

9.1.18 COMMON MEASUREMENT INITIATION RESPONSE

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				–	
Measurement Id	M				YES	ignore
CHOICE Common Measurement Object Type					YES	ignore
>"Cell"					YES	ignore
>>Common Measurement value	M				–	
>"RACH"					YES	ignore
>>Common Measurement Value	M				–	
SFN	O			Common Measurement Time Reference	YES	ignore
Criticality Diagnostics	O				YES	ignore

9.1.19 COMMON MEASUREMENT INITIATION FAILURE

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				–	
Measurement Id	M				YES	ignore
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.20 COMMON MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
CHOICE Common <i>Measurement Object Type</i>					YES	ignore
>"Cell"					YES	ignore
>>Common Measurement value	M				–	
>"RACH"					YES	ignore
>>Common Measurement Value	M				–	
SFN	O			Common Measuremen t Time Reference	YES	ignore

9.1.21 COMMON MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore

9.1.22 COMMON MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
Cause	M				YES	ignore

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 [14][TS25.104]	YES	reject
UARFCN	M			Corresponds to Nd [14][TS25.104]		
Maximum transmission power	M				YES	reject
Primary scrambling code	M				YES	reject
Primary SCH Information		1			YES	reject
>Common Physical Channel ID	M				–	
>Primary SCH Power	M		DL Power		–	
>TSTD Indicator	M				–	
Secondary SCH Information		1			YES	reject
>Common Physical Channel ID	M				–	
>Secondary SCH power	M		DL Power		–	
>TSTD Indicator	M				–	
Primary CPICH Information		1			YES	reject
>Common Physical Channel ID	M				–	
>Primary CPICH power	M				–	
>Transmit Diversity Indicator	M				–	
Secondary CPICH Information		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				–	
Primary CCPCH Information		1			YES	reject
>Common Physical Channel ID	M				–	
>BCH Information		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 [15][TS25.405]	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
SCH Information		1			YES	reject
>Common physical channel ID	M				–	
>CHOICE <i>Sync Case</i>						
>>Case 1					YES	reject
>>>Time Slot	M				–	
>>Case 2					YES	reject
>>>SCH Time Slot	M				–	
>SCH Power	M		DL Power		–	
>TSTD Indicator	M				–	
PCCPCH Information		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				–	
Time Slot Configuration		1 .. 15			GLOBAL	reject
>Time Slot	M				–	
>Time Slot Status	M				–	
>Time Slot Direction	M				–	

9.1.24 CELL SETUP RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.25 CELL SETUP FAILURE

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				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

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
Primary SCH Information		0,1			YES	reject
>Common Physical Channel ID	M				–	
>Primary SCH power	M		DL Power		–	
Secondary SCH Information		0,1			YES	reject
>Common Physical Channel ID	M				–	
>Secondary SCH power	M		DL Power		–	
Primary CPICH Information		0,1			YES	reject
>Common Physical Channel ID	M				–	
>Primary CPICH power	M				–	
Secondary CPICH Information		0..<maxSCPICHCell>			YES	reject
>Common Physical Channel ID	M				–	
>Secondary CPICH Power	M		DL Power		–	
Primary CCPCH Information		0,1			YES	reject
> BCH Information		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
SCH Information		0,1			YES	reject
>Common Physical Channel ID	M				–	
>SCH Power	M		DL Power		–	
PCCPCH Information		0,1			YES	reject
>Common Physical Channel ID	M				–	
>PCCPCH Power	M				–	
Maximum Transmission Power	O				YES	reject
Time Slot Configuration		1..15			GLOBAL	reject
>Time Slot	M				–	
>Time Slot Status	M				–	
>Time Slot Direction	M				–	

9.1.27 CELL RECONFIGURATION RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.28 CELL RECONFIGURATION FAILURE

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				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.29 CELL DELETION 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

9.1.30 CELL DELETION RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.31 RESOURCE STATUS INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction ID	M				–	
Indication Type	M				YES	ignore
CHOICE Indication Type					YES	ignore
>"No Failure"					YES	ignore
>>Node B Information		1				
>>>DL or Global Capacity Credit	M					
>>>UL Capacity Credit	O					
>>>Common Channels Capacity Consumption Law	M					
>>>Dedicated Channels Capacity Consumption Law	M					
>>Local Cell Information		1.. <max LocalCellin NodeB >			EACH	ignore
>>>Local Cell ID	M				–	
>>>Add/Delete Indicator	M				–	
>>>DL or Global Capacity Credit	C-add					
>>>UL Capacity Credit	O					
>>>Common Channels Capacity Consumption Law	C-add					
>>>Dedicated Channels Capacity Consumption Law	C-add					
>>>Maximum DL Power Capability	M				–	
>"Service Impacting"					YES	ignore
>>Node B Information		0..1				
>>>DL or Global Capacity Credit	O					
>>>UL Capacity Credit	O					
>>Local Cell Information		0.. <maxLocal CellinNode B>			EACH	ignore
>>>Local Cell ID	M				–	
DL or Global Capacity Credit	O					
UL Capacity Credit	O					
>>>Maximum DL Power Capability	O				–	
>>Communication Control Port Information		0.. <maxCCPi nNodeB>			EACH	ignore

>>>Communication Control Port ID	M				–	
>>>Resource Operational State	M				–	
>>>Availability Status	M				–	
>>Cell Information		0.. <maxCellin NodeB>			EACH	ignore
>>>C-ID	M				–	
>>>Resource Operational State	M				–	
>>>Availability Status	M				–	
>>>Maximum DL Power Capability	FFS				–	
>>>Minimum Spreading Factor	FFS				–	
>>Primary SCH Information		0..1			YES	ignore
>>>Common Physical Channel ID	M				–	
>>>Resource Operational State	M				–	
>>>Availability Status	M				–	
>>Secondary SCH Information		0..1			YES	ignore
>>>Common Physical Channel ID	M				–	
>>>Resource Operational State	M				–	
>>>Availability Status	M				–	
>>Primary CPICH Information		0..1			YES	ignore
>>>Common Physical Channel ID	M				–	
>>>Resource Operational State	M				–	
>>>Availability Status	M				–	
>>Secondary CPICH Information		0..<maxSC PICHCell>			EACH	ignore
>>>Common Physical Channel ID	M				–	
>>>Resource Operational State	M				–	
>>>Availability Status	M				–	
>>Primary CCPCH Information		0..1			YES	ignore
>>>Common Physical Channel ID	M				–	
>>>Resource Operational State	M				–	
>>>Availability Status	M				–	

>>BCH Information		0.. 1			YES	ignore
>>>Common Transport Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>Secondary CCPCH Information		0..<maxSC CPCHCell >			EACH	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>PCH Information		0..1			EACH	ignore
>>>Common Transport Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>PICH Information		0..1			YES	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>FACH Information		0.. <maxFACHCell>			EACH	ignore
>>>Common Transport Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>PRACH Information		0..<maxPRACHCell>			EACH	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>RACH Information		0.. <maxPRACHCell>			EACH	ignore
>>>Common Transport Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability	M				-	

Status						
>>AICH Information		0.. <maxPRA CHCell>			EACH	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>SCH Information		0..1			YES	ignore
>>>Common Transport Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
Cause	O				YES	ignore

Condition	Explanation
C-add	This IE is present only if "Add/Delete Indicator" equals to add

Range bound	Explanation
<i>maxLocalCellinNodeB</i>	Maximum number of Local Cells that can exist in the Node B
<i>maxCellinNodeB</i>	Maximum number of C ID that can be configured in Node B
<i>maxSCPICHCell</i>	Maximum number of Secondary CPICH that can be defined in a Cell.
<i>maxSCCPCHCell</i>	Maximum number of Secondary CCPCH that can be defined in a Cell.
<i>maxFACHCell</i>	Maximum number of FACHes that can be defined in a Cell
<i>maxPRACHCell</i>	Maximum number of PRACHes and AICHes that can be defined in a Cell
<i>maxCCPinNodeB</i>	Maximum number of communication control ports that can exist in the Node B
<i>maxConsumptionLaws</i>	Maximum number of credit consumption laws.

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
MIB/SIBInformation		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				–	
>>Segment Information		1.. <i>maxIBSEGE</i>			GLOBAL	reject
>>>IB SG POS	M				–	
>>>IB SG DATA	C – CRNCOri nation				–	

Range bound	Explanation
1.. <i>maxIB</i>	Maximum number of information Blocks supported in a physical channel scheduling cycle
1.. <i>maxIBSEGE</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"

9.1.33 SYSTEM INFORMATION UPDATE RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.34 SYSTEM INFORMATION UPDATE FAILURE

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				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

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				–	
UL DPCH Information		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				–	
DL DPCH Information					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				–	
>Power Offset Information		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				–	
DCH Information		1 to <maxnoof DCHs>			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	M				–	
>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				-	
DSCH Information		0 to <maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M				-	
>Transport Format Set	M			For DSCH	-	
>Frame handling Priority	M				-	
>ToAWS	M				-	
>ToAWE	M				-	
RL Information		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				-	
>DL Code Information		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				–	
UL CCTrCH Information		0 to <maxno CCTrCH>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	M				–	
>TFCI Coding	M				–	
>Puncture Limit	M				–	
UL DPCH Information		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				–	
DL CCTrCH Information		0 to <maxno CCTrCH>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	M				–	
>TFCI Coding	M				–	
>Puncture Limit	M				–	
>TDD TPC DL Step Size	M				–	
DL DPCH information		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				–	
DCH Information		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				–	
DSCH Information		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				–	
USCH Information		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	–	
RL Information		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

9.1.36 RADIO LINK SETUP RESPONSE

9.1.36.1 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	ignore
Transaction ID	M				–	
Node B Communication Context ID	M				YES	ignore
Communication Control Port ID	M				YES	ignore
RL Information Response		1 to <maxnoofRLs>			EACH	ignore
>RL ID	M				–	
>RL Set ID	M					
>UL interference level	M				–	
>Diversity Indication	C- NotFirstRL				–	
>CHOICE <i>diversity Indication</i>						
>>Combining					YES	ignore
>>>RL ID	M			Reference RL ID for the combining	–	
>>Non Combining or IE not present					YES	ignore
>>>DCH Information Response		0 to <maxnoofDCHs>		Only one DCH per set of coordinated DCH shall be included	–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>DSCH Information Response		0 to <Numof DSCH>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>SSDT Support Indicator	M				–	
Criticality diagnostics	O				YES	ignore

Condition	Explanation
NotFirstRL	This IE is present only if the RL is not the first one in the RL Information.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of DCH per UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.

9.1.36.2 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	ignore
Transaction ID	M				–	
Node B Communication Context ID	M				YES	ignore
Communication Control Port ID	M				YES	ignore
RL Information Response		1			YES	ignore
>RL ID	M				–	
>UL Interference per Time Slot		1 .. <maxnoofULts>		Interference Level for each UL time slot within the Radio Link		
>Time Slot	M					
>UL interference level	M					
>DCH Information Response		1 to <maxnoofDCH>		Only one DCH per set of coordinated DCH shall be included.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DSCH Information Response		0 .. <MaxnoofDSCHs>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH Information Response		0 .. <MaxnoofUSCHs>			GLOBAL	ignore
>>USCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
Criticality diagnostics	O				YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCH per UE
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUSCHs	Maximum number of USCHs for one UE
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.1.37 RADIO LINK SETUP FAILURE

9.1.37.1 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	ignore
Transaction ID	M				–	
Node B Communication Context ID	M				YES	ignore
Communication Control Port ID	O				YES	ignore
Unsuccessful RL Information Response		1 to <maxnoo fRLs>			EACH	ignore
>RL ID	M				–	
>Cause	M				–	
Successful RL Information Response		0 to <maxnoo fRLs-1>			EACH	ignore
>RL ID	M				–	
>RL Set ID	M				–	
>UL interference level	M				–	
>Diversity Indication	C-NotFirstRL				–	
>CHOICE <i>diversity Indication</i>					–	
>>Combining					YES	ignore
>>>RL ID	M			Reference RL ID for the combining	–	
>>Non Combining or IE not present					YES	ignore
>>>DCH Information Response		0 to <maxnoo fDCHs>		Only one DCH per set of coordinated DCH shall be included	–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>DSCH Information Response		0 to <Numof DSCH>			GLOBAL	Ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>SSDT Support Indicator	M				–	
Criticality diagnostics	O				YES	ignore

Condition	Explanation
Success	This IE is present if at least one of the radio links has been successfully set up.
NotFirstRL	This IE is present only if the RL is not the first one in the RL Information.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of set DCH per UE.
MaxnoofDSCHs	Maximum number of DSCH for one UE

9.1.37.2 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	ignore
Transaction ID	M				–	
Unsuccessful RL Information Response		1			YES	ignore
>RL ID	M				–	
>Cause	M				–	
Criticality diagnostics	O				YES	ignore

9.1.38 RADIO LINK ADDITION REQUEST

9.1.38.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context ID	M				YES	reject
Transaction ID	M				–	
RL Information		1..<maxnoofRL-1>			EACH	notify
>RL ID	M				–	
>C-Id	M				–	
>Frame Offset	M				–	
>Chip Offset	M				–	
>Diversity Control Field	M				–	
>DL Code Information		1..maxnoofDL Codes			–	
>>DL Scrambling code	M				–	
>>FDD DL channelisation code number	M				–	
>Initial DL transmission power	O		DL Power		–	
>Maximum DL power	O		DL Power		–	
>Minimum DL power	O		DL Power		–	
>SSDT Cell Identity	O				–	
>Transmit Diversity Indicator	C – Diversity mode					

Condition	Explanation
Diversity mode	This IE is present unless <i>Diversity Mode</i> IE in <i>UL DPCCH Information</i> group is “none”

Range bound	Explanation
<i>MaxnoofRL</i>	Maximum number of RLs for one UE
<i>MaxnoofDL Codes</i>	Maximum number of DL code information

9.1.38.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context ID	M				YES	reject
Transaction ID	M				–	
UL CCTrCH Information		0 to <maxn o CCTrC H>			GLOBAL	reject
>CCTrCH ID	M				–	
UL DPCH Information		0 to <maxn oOfDP CH>			EACH	notify
>DPCH ID	M				–	
>TDD Channelisation Code	M				–	
>Burst Type	M				–	
>Midamble Shift	M				–	
>Time Slot	M				–	
>TDD Physilca Channel Offset	M				–	
>Repetition Period	M				–	
>Repetition Length	M				–	
>TFCI Presence	M				–	
DL CCTrCH Information		0 to <maxn o CCTrC H>			GLOBAL	reject
>CCTrCH ID	M				–	
DL DPCH information		0 to <maxn oOfDP CH>			EACH	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				–	
RL Information		1			YES	reject
>RL ID	M				–	
>C-Id	M				–	
>Frame Offset	M				–	
>Diversity Control Field	M				–	
>Initial DL Power	O		DL Power		–	
>Maximum DL power	O		DL Power		–	
>Minimum DL power	O		DL Power		–	

Range bound	Explanation
MaxnoOfDPCH	Maximum number of DPCH in one CCTrCH
MaxnoCCTrCH	number of CCTrCH for one UE.

9.1.39 RADIO LINK ADDITION RESPONSE

9.1.39.1 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	ignore
Transaction ID	M				–	
RL Information Response		1..<maxno ofRL-1>			EACH	ignore
>RL ID	M				–	
>RL Set ID	M					
>UL interference level	M				–	
>Diversity Indication	M				–	
>CHOICE <i>diversity indication</i>					–	
>>Combining					YES	ignore
>>>RL ID	M			Reference RL	–	
>>Non combining					YES	ignore
>>>DCH Information Response		1..<maxno ofDCHs>			–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>SSDT support indicator	M				–	
Criticality diagnostics	O				YES	ignore

Range bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs per UE
<i>MaxnoofRL</i>	Maximum number of RLs for one UE

9.1.39.2 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	ignore
Transaction ID	M				–	
RL Information response		1			YES	ignore
>RL ID	M				–	
>UL Interference per Time Slot	M	1 .. <maxn oofULts >		Interference Level for each UL time slot within the Radio Link		
>>Time Slot	M					
>>UL interference level	M				–	
>Diversity Indication	M				–	
>CHOICE <i>diversity indication</i>						
>Combining				In TDD it indicates whether the old Transport Bearer shall be reused or not	YES	ignore
>>RL ID	M			Reference RL	–	
>Non combining					YES	ignore
>>>DCH Information Response		0..<maxn oofDCHs>			–	
>>>DCH ID	M				–	
>>>Binding ID	M				–	
>>>Transport Layer Address	M				–	
>DSCH Information Response		0 .. <Maxn oofDSC Hs			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH Information Response		0 .. <Maxn oofUSC Hs			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 per UE
<i>MaxnoofDSCHs</i>	Maximum number of DSCHs for one UE
<i>MaxnoofUDCHs</i>	Maximum number of USCHs for one UE
<i>MaxnoofULts</i>	Maximum number of Uplink time slots per Radio Link

9.1.40 RADIO LINK ADDITION FAILURE

9.1.40.1 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	ignore
Transaction ID	M				–	
Unsuccessful RL Information Response		1..<maxnoofRL-1>			EACH	ignore
>RL ID	M				–	
>Cause	M				–	
Successful RL Information Response		1..<maxnoofRL-2>			EACH	ignore
>RL ID	M				–	
>RL Set ID	M				–	
>UL interference level	M				–	
>Diversity Indication	M				–	
>CHOICE <i>diversity indication</i>						
>>Combining					YES	ignore
>>>RL ID	M			Reference RL	–	
>>Non combining					YES	ignore
>>>DCH Information Response		1..<maxnoofDCHs>			–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>SSDT support indicator	M				–	
Criticality diagnostics	O				YES	ignore

Range bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs per UE
<i>MaxnoofRL</i>	Maximum number of RLs for one UE

9.1.40.2 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	ignore
Transaction ID	M				–	
Unsuccessful RL Information Response		1			YES	ignore
>RL ID	M				–	
>Cause	M				–	
Criticality diagnostics	O				YES	ignore

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				–	
UL DPCH Information		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				–	
DL DPCH Information		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			
DCHs to Modify		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				–	
DCHs to Add		0..<max noofDC Hs>			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	M				–	
>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				–	

DCHs to Delete		<i>0..<max noofDC Hs></i>			GLOBAL	reject
>DCH ID	M				–	
DSCH to modify		<i>0..<max noofDS CHs></i>			YES	reject
>DSCH ID	M				–	
>Transport Format Set	O			For the DL.	–	
>Frame Handling Priority	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
DSCH to add		<i>0..<max noofDS CHs></i>			YES	reject
>DSCH ID	M				–	
>Transport Format Set	M			For the DL.	–	
>Frame Handling Priority	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
DSCH to Delete		<i>0..<max noofDS CHs></i>			YES	reject
>DSCH ID	M				–	
RL Information		<i>0..<max noofRLs ></i>			EACH	reject
>RL ID	M				–	
>DL Code Information		<i>0..<max noofDL Codes<</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>MaxnoofDLCodes</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				–	
UL CCTrCH Information		0..<maxno of CCTrCHs>			GLOBAL	reject
>CCTrCH ID	M				–	
>TFCS	O				–	
>TFCI Coding	O				–	
>Puncture Limit	O				–	
>UL DPCH Information		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				–	
DL CCTrCH Information		0..<maxno of CCTrCHs>			GLOBAL	reject
>CCTrCH ID	M				–	
>TFCS	O				–	
>TFCI Coding	O				–	
>PunctureLimit					–	
>DL DPCH Information		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				–	
DCHs to Modify		0..<max			GLOBAL	reject

		<i>noofDC Hs></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				–	
DCHs to Add		<i>0..<max noofDC Hs></i>			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 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				–	
DCHs to Delete		<i>0..<max noofDC Hs></i>			GLOBAL	reject
>DCH ID	M				–	
DSCH Information to modify		<i>0 .. <Maxno of DSCHs ></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				–	
DSCH Information to add		<i>0 .. <Maxno of DSCHs ></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				–	
DSCH Information to delete		0 .. <Maxno of DSCHs >			GLOBAL	reject
>DSCH ID	M				–	
USCH Information to modify		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				–	
>Transport Format Set	O				–	
>CCTrCH ID	O			UL CCTrCH in which the USCH is mapped	–	
USCH Information to add		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M				–	
USCH Information to delete		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				–	
RL Information		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

9.1.42 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				–	
RL Information Response		<i>0..<max noofRLs ></i>		Only one RL information response group for one group of combined RLs shall be present	EACH	ignore
>RL ID	M				–	
>DCH to be Added		<i>0..<max noofDC Hs></i>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DCH to be Modified		<i>0..<max noofDC Hs></i>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DSCH to be Setup		<i>0..<Max noofDS CHs></i>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DSCH to be Modified		<i>0..<Max noofDS CHs></i>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH to be setup		<i>0 .. <Maxno of USCHs ></i>			GLOBAL	ignore
>>USCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH to be modified		<i>0 .. <Maxno of</i>			GLOBAL	ignore

		USCHs >				
>>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

9.1.43 RADIO LINK RECONFIGURATION FAILURE

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				–	
Cause	M				YES	ignore
RLs Causing Reconfiguration Failure		<i>0..<max noofRLs ></i>			EACH	ignore
>RL ID	M				–	
>Cause	M				–	
Criticality diagnostics	O				YES	ignore

Range Bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of RLs for a UE.

9.1.44 RADIO LINK RECONFIGURATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message type	M				YES	ignore
Node B Communication Context ID	M				YES	ignore
Transaction ID	M				–	
CFN	M				YES	ignore

9.1.45 RADIO LINK RECONFIGURATION CANCEL

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message type	M				YES	ignore
Node B Communication Context ID	M				YES	ignore
Transaction ID	M				–	

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				–	
UL DPCH Information		0..1			YES	reject
>TFCS	O			For the UL.	–	
DL DPCH Information		0..1			YES	reject
>TFCS	O			For the DL.	–	
>TFCI Signalling Mode	O				–	
>PDSCH code mapping	O					
>PDSCH RL ID	O		RL ID			
DCHs to Modify		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				–	
DCHs to Add		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	M				–	
>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				–	
DCHs to Delete		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M				–	
DSCH to Modify		0..<maxn oofDSCHs >			YES	reject
>DSCH ID	M				–	
>Transport Format Set	O			For the DL.	–	
>Frame Handling Priority	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
DSCH to Add		0..<maxn oofDSCHs >			YES	reject

>DSCH ID	M				–	
>Transport Format Set	M			For the DL.	–	
>Frame Handling Priority	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
DSCH to Delete		0..1			YES	reject
>DSCH ID	M				–	
Radio Link Information		0..<maxn oofRLs>			EACH	reject
>RL ID	M				–	
>Maximum DL Power	O		DL Power		–	
>Minimum DL Power	O		DL Power		–	

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.

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				–	
UL CCTrCH Information		<i>0..<maxn oofCCTrCHs></i>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	O				–	
>Puncture Limit	O				–	
DL CCTrCH Information		<i>0..<maxn oofCCTrCHs></i>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	O				–	
>Puncture Limit	O				–	
DCHs to Modify		<i>0..<maxn oofDCHs ></i>			GLOBAL	reject
>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				–	
DCHs to Add		<i>0..<maxn oofDCHs ></i>			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 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				–	

DCHs to Delete		0..<maximum number of DSCHs>			GLOBAL	reject
>DCH ID	M				–	
DSCH Information to modify		0 .. <Maximum number of 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				–	
DSCH Information to add		0 .. <Maximum number of 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				–	
DSCH Information to delete		0 .. <Maximum number of DSCHs>			GLOBAL	reject
>DSCH ID	M				–	
USCH Information to modify		0 .. <Maximum number of USCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	O			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	O				–	
USCH Information to add		0 .. <Maximum number of USCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M				–	
USCH Information to delete		0 .. <Maximum number of USCHs>			GLOBAL	reject
>USCH ID	M				–	
RL Information		0..1			YES	reject
>RL ID	M				–	
>Maximum Downlink Power	O		DL Power		–	

>Minimum Downlink Power	0		DL Power		-	
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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

9.1.47 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				–	
RL Information Response		0..<maxn oofRLs>		Only one RL information response group for one group of combined RLs shall be present	EACH	ignore
>RL ID	M				–	
>DCH to be Added		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				–	
>DCH to be Modified		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				–	
>DSCH to be Setup		0..<Maxn oofDSCH s>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DSCH to be Modified		0..<Maxn oofDSCH s>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH to be setup		0 .. <Maxnoo fUSCHs>			GLOBAL	ignore
>>USCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH to be modified		0 .. <Maxnoo 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

9.1.48 RADIO LINK DELETION REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context ID	M				YES	reject
Transaction ID	M				–	
RL Information		<i>1..<maxnoofRLs></i>			EACH	notify
RL ID	M				–	

Range bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of radio links for one UE

9.1.49 RADIO LINK DELETION RESPONSE

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	ignore
Transaction ID	M				–	
Criticality diagnostics	O				YES	ignore

9.1.50 DL POWER CONTROL REQUEST [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Node B Communication Context ID	M				YES	ignore
Transaction ID	M				–	
Power Adjustment Type	M				YES	ignore
DL Reference Power	C-Common		DL power		–	
DL Reference Power Information	C-Individual	1..<maxnoof RLS>			GLOBAL	ignore
>RL ID	M				–	
>DL Reference Power	M		DL power		–	
Max Adjustment Step	C-Common OrIndividual					
Max. Adjustment Period	C-Common OrIndividual					

Condition	Explanation
Common	This IE is present only "Adjustment Type " equals to 'Common'
Individual	This IE is present only "Adjustment Type " equals to 'Individual'
CommonOrIndividual	This IE is present only "Adjustment Type " equals to 'Common' or 'Individual'

Range Bound	Explanation
MaxnoofRLs	Maximum number of Radio Links for a UE

9.1.51 DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context Id	M				YES	reject
Transaction Id	M				–	
Measurement Id	M				YES	reject
Dedicated Measurement Object Type	M				YES	reject
CHOICE <i>Dedicated Measurement Object Type</i>					YES	ignore
>"RL"					YES	reject
>>RL Information		1..<maxnoofRLs>			EACH	reject
>>>RL-id	M				–	
>>>DPCH ID	O				–	
>"RLS"						
>>RL Set Information		1..<maxnoofRLSets>				
>>>RL Set ID	M					
Dedicated Measurement Type	M				YES	reject
Measurement Filter Coefficient	O				YES	reject
Report Characteristics	M				YES	reject

Range	Explanation
<i>MaxnoofRLs</i>	Maximum number of individual RL's a measurement can be started on.
<i>MaxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on.

9.1.52 DEDICATED MEASUREMENT INITIATION RESPONSE

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	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>				Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>"RL" or "ALL RL"					YES	ignore
>>RL Information		1..<maxnoofRLs>			EACH	ignore
>>>RL-id	M				–	
>>>DPCH ID	O				–	
>>>Dedicated Measurement Value	M					
>"RLS" or "ALL RLS"					YES	ignore
>>RL Set Information		1..<maxnoofRLSets>			–	
>>>RL Set ID	M					
>>>Dedicated Measurement Value	M					
CFN	O			Dedicated Measurement Time Reference	YES	ignore
Criticality diagnostics	O				YES	ignore

Range	Explanation
<i>MaxnoofRLs</i>	Maximum number of individual RL's the measurement can be started on.
<i>MaxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on.

9.1.53 DEDICATED MEASUREMENT INITIATION FAILURE

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	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.54 DEDICATED MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
CRNC Communication Context Id	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
<i>CHOICE Dedicated Measurement Object Type</i>				Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>"RL" or "ALL RL"					YES	ignore
>>RL Information		1..<maxnoofRLs>			EACH	ignore
>>>RL-id	M				–	
>>>DPCH ID	O				–	
>>>Dedicated Measurement Value	M				–	
>"RLS" or "ALL RLS"						
>>RL Set Information		1..<maxnoofRLSets>				
>>>RL Set id	M					
>>>Dedicated Measurement Value	M					
CFN	O			Dedicated Measurement Time Reference	YES	ignore

Range	Explanation
<i>MaxnoofRLs</i>	Maximum number of individual RL's the measurement can be started on.
<i>MaxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on.

9.1.55 DEDICATED MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Node B Communication Context Id	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore

9.1.56 DEDICATED MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
CRNC Communication Context Id	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
Cause	M				YES	ignore

9.1.57 RADIO LINK FAILURE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction ID	M				–	
CRNC Communication Context ID	M				YES	ignore
CHOICE <i>Reporting Object</i>	M			Object for which the Failure shall be reported.		
>"RL"						
>>RL Information		1 to <MaxnoofRLs>			EACH	ignore
>>>RL ID	M				–	
>>>Cause	M				–	
>"RL Set"						
>>RL Set Information		1 to <MaxnoofRL Sets>				
>>>RL Set ID	M					
>>>Cause	M					

Range bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of RLs for one UE.
<i>MaxnoofRL Sets</i>	Maximum number of RL Sets for one UE.

9.1.58 RADIO LINK RESTORE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction ID	M				–	
CRNC Communication Context ID	M				YES	ignore
CHOICE <i>Reporting Object</i>	M			Object for which the Restoration shall be reported.		
>"RL"						
>>Radio Link Information		1 to <MaxnoofRLs>			EACH	ignore
>>>RL ID	M				–	
>"RL Set"						
>>RL Set Information		1 to <MaxnoofRLSets>				
>>>RL Set ID	M					

Range bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of RLs for one UE.
<i>MaxnoofRLSets</i>	Maximum number of RL Sets for one UE.

9.1.59 COMPRESSED MODE PREPARE [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B communication context ID	M				YES	reject
Transaction ID	M				–	
CM Pattern Information		1 to 8		Range defined ref. [4]		
>CFN Offset	M					
>TGP1	M		Gap Period	Refer to [4]	YES	reject
>TGP2	O		Gap Period	Refer to [4]	YES	reject
>TGL	M				YES	reject
>TGD	M				YES	reject
>PD	M				YES	reject
>UL/DL compressed mode selection	M				YES	reject
>Compressed mode method	M				YES	reject
>Gap Position Mode	M				YES	reject
>SN	C-Flex		TimeSlot		YES	reject
>Downlink Frame Type	M				YES	reject
>Scrambling Code Change	C-SF/2				YES	reject
>Power Control Mode	M				YES	reject
>Power Resume Mode	M				YES	reject
>UL delta SIR	M				YES	reject
>UL delta SIR after	M				YES	reject

Condition	Explanation
Flex	This IE is present only if "Gap position Mode" equals to 'flexible'.
SF/2	This IE is present only if Compressed Mode Method equals to SF/2

9.1.60 COMPRESSED MODE READY [FDD]

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	ignore
Transaction ID	M				–	
Criticality diagnostics	O				YES	ignore

9.1.61 COMPRESSED MODE COMMIT [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Node B communication context ID	M				YES	ignore
Transaction ID	M				–	
CFN	M				YES	ignore

9.1.62 COMPRESSED MODE FAILURE [FDD]

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	ignore
Transaction ID	M				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.63 COMPRESSED MODE CANCEL [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				-	
Message Type	M				YES	reject
Node B communication context ID	M				YES	ignore
Transaction ID	M				-	

9.1.64 ERROR INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				-	
Message Discriminator	M				YES	ignore
CRNC Communication Context Id	C-ifUL				-	
Node B Communication Context Id	C-ifDL				YES	ignore
Transaction Id	M				YES	ignore
Cause	C-ifalone				YES	ignore
Criticality diagnostics	C-ifalone				YES	ignore

Condition	Explanation
IfDL	This IE is only present when message is transmitted by the CRNC on a signalling bearer corresponding to a communication control port.
IfUL	This IE is only present when message is transmitted by the Node B on a signalling bearer corresponding to a communication control port.
Ifalone	At least either of Cause IE or Criticality Diagnostics IE shall be present.

9.1.65 PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				-	
Message Type	M				YES	reject
Transaction ID	M				-	
C-ID	M				YES	reject
PDSCH Sets to add		<i>0..<maxnoof PDSCHSets ></i>			GLOBAL	reject
>PDSCH Set Id	M				-	
>PDSCH Information		<i>0..<maxnoof PDSCH></i>			GLOBAL	reject
>>PDSCH ID	M				-	

>>TDD Channelisation Code	M				-	
>>Burst Type	M				-	
>>Midamble Shift	M				-	
>>Time Slot	M				-	
>>Repetition Period	M				-	
>>TDD Physical Channel Offset	O				-	
>>Repetition Length	O				-	
>>TFCI Presence	M				-	
PDSCH Sets to Modify		<i>0..<maxnoof PDSCHSets ></i>			GLOBAL	reject
>PDSCH Set Id	M				-	
>PDSCH Information		<i>0..<maxnoof PDSCH></i>			GLOBAL	reject
>>PDSCH ID	M				-	
>>TDD Channelisation Code	M				-	
>>Burst Type	M				-	
>>Midamble Shift	M				-	
>>Time Slot	M				-	
>>Repetition Period	M				-	
>>TDD Physical Channel Offset	O				-	
>>Repetition Length	O				-	
>>TFCI Presence	M				-	
PDSCH Sets to Delete		<i>0..<maxnoof PDSCHSets ></i>			GLOBAL	reject
>PDSCH Set Id	M				-	
PUSCH Sets to add		<i>0..<maxnoof PUSCHSets ></i>			GLOBAL	reject
>PUSCH Set Id	M				-	
>PUSCH Information		<i>0..<maxnoof PUSCH></i>			GLOBAL	reject
>>PUSCH ID	M				-	
>>TDD Channelisation Code	M				-	
>>Burst Type	M				-	
>>Midamble Shift	M				-	
>>Time Slot	M				-	
>>Repetition Period	M				-	
>>TDD Physical Channel Offset	O				-	
>>Repetition Length	O				-	
>>TFCI Presence	M				-	
PUSCH Sets to Modify		<i>0..<maxnoof PUSCHSets ></i>			GLOBAL	reject
>PUSCH Set Id	M				-	
>PUSCH Information		<i>0..<maxnoof PUSCH></i>			GLOBAL	reject
>>PUSCH ID	M				-	
>>TDD Channelisation Code	M				-	
>>Burst Type	M				-	
>>Midamble Shift	M				-	
>>Time Slot	M				-	

>>Repetition Period	M				-	
>>TDD Physical Channel Offset	O				-	
>>Repetition Length	O				-	
>>TFCI Presence	M				-	
PUSCH Sets to Delete		0..<maxnoof PUSCHSets >			GLOBAL	reject
>PUSCH Set Id	M				-	

Range bound	Explanation
Maxnoof PDSCH Sets	Maximum number of PDSCH Sets in a cell.
Maxnoof PDSCH	Maximum number of PDSCH in a cell.
Maxnoof PUSCH Sets	Maximum number of PUSCH Sets in a cell.
Maxnoof PUSCH	Maximum number of PUSCH in a cell.

9.1.66 PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				-	
Message Type	M				YES	reject
Transaction ID	M				-	
Criticality diagnostics	O				YES	ignore

9.1.67 PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				-	
Message Type	M				YES	reject
Transaction ID	M				-	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.2 Information Element Functional Definition and Contents

9.2.1 Common parameters

9.2.1.1 Add/Delete Indicator

The add/delete indicator shall notify the RNC whether the associated resource has been added to or removed from the Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Add/Delete Indicator			ENUMERATED(Add, Delete)	

9.2.1.2 Availability Status

The availability status is used to indicate more detailed information of the availability of the resource. In accordance with [6], following values are defined. If the value of this attribute is an empty set, this implies that none of the status conditions described in [6] are present.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Availability Status			ENUMERATED (empty, in test, failed, power off, off line, off duty, dependency, degraded, not installed, log full, ...)	

9.2.1.3 BCCH Modification Time

Indicates the time after which the new system information shall be applied on BCCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
BCCH Modification Time			Integer (0, 2, 4, ...,4094)	All even SFN values are allowed The tabular description is a direct copy from [18]TS 25.334 CR 078

9.2.1.4 Binding ID

The Binding ID is the identifier of a user data stream. It is allocated at Node B and it is unique for each transport bearer under establishment to/from the Node B. The length of this parameter is variable.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Binding ID			Octetstring (1..4,...)	

9.2.1.5 Blocking Priority Indicator

The Blocking priority indicator shall indicate the immediacy with which a resource should be blocked from use. The following priority classes shall be supported in the Blocking priority indicator.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Blocking Priority Indicator			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.

9.2.1.6 Cause

IE/Group Name	Presence	Range	IE type and reference	Semantics description
<i>CHOICE 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, 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)	

9.2.1.7 CFN

Connection Frame Number for the radio connection, see ref. [\[17\]\[25.402\]](#).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CFN			Integer (0..255)	

9.2.1.8 C-ID

The C-ID (Cell identifier) is the identifier of a cell in one RNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
C-ID			INTEGER (0..65535)	

9.2.1.9 Common Measurement Object Type

The Common Measurement Object type indicates the type of object that the measurement is to be performed on.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Measurement Object Type			ENUMERATED (CELL, RACH,...)	

9.2.1.10 Common Measurement Type

The Common Measurement Type identifies which measurement that shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Measurement Type			ENUMERATED (RSSI, Transmitted Carrier Power, Acknowledged RA tries, Timeslot ISCP,...)	

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 [4] and [5]25.215/25.225
>RSSI Value	C <i>MeasValue</i>		INTEGER(0..63)	According to mapping in 25.215/25.225[4] and [5]
>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 [5]25.225

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

9.2.1.12 Common Physical Channel Id

Common Physical Channel Id is the unique identifier for one common physical channel within a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Common Physical Channel ID			Integer(0..255)	

9.2.1.13 Common Transport Channel Id

Common Transport Channel Id is the unique identifier for one common transport channel within a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Common Transport Channel ID			Integer(0..255)	

9.2.1.14 Communication Control Port ID

A Communication Control Port corresponds to one signalling bearer between the RNC and Node B for the control of Node B Communication Contexts. Node B may have multiple Communication Control Ports (one per Traffic Termination Point). The Communication Control Port is selected at creation of the Node B Communication Context. The Communication Control Port ID is the identifier of the Communication Control Port.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Communication Control Port ID			INTEGER (0..65535)	

9.2.1.15 Configuration Generation ID

The Configuration Generation ID describes the generation of the configuration of logical resources in a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Configuration Generation ID			Integer(0..255)	Value '0' means "No configuration". At possible wraparound of the ID counter in CRNC the value '0' shall not be used.

9.2.1.16 Criticality diagnostics

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Criticality Diagnostics				
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)	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	
Information Element Criticality Diagnostics		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. The value for maxnooferrors is 256.

9.2.1.17 CRNC Communication Context ID

The CRNC Communication Context ID is the identifier of the Communication Context in the CRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CRNC Communication Context ID			INTEGER (0..2 ²⁰ -1)	

9.2.1.18 DCH Combination Indicator

The DCH Combination Indicator is used to indicate the multiplexing of more than one DCH on transport bearer. The value should be unique for each group of coordinated DCH's per request message.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DCH Combination Ind			INTEGER (0..255)	

9.2.1.19 DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DCH ID			INTEGER (0..255)	

9.2.1.20 DL Power

The DL Power IE indicates a power level relative to the [FDD-primary CPICH power] [TDD-primary CCPCH power] configured in a cell [FDD-If referred to a DPCH, it indicates the power of the DPDCH symbols].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL Power			Enumerated(-35..+15dB)	Step 0.1dB

9.2.1.21 Dedicated Measurement Object Type

The Dedicated Measurement Object type indicates the type of object that the measurement is to be performed on.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dedicated Measurement Object Type			ENUMERATED (RL, RLS, ALL RL, ALL RLS,...)	

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,...)	RSCP is used by TDD only.

Note. For definitions of the measurement types refer to [4] and [5] 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
Dedicated measurement Value				
>SIR value	C <i>MeasValue</i>		INTEGER(0..63)	According to mapping in 25.215/25.225 [4] and [5]
>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 [4] and [5] 25.215/25.225
>RSCP	C <i>MeasValue</i>		INTEGER(0..81)	According to mapping in [5] 25.225

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

9.2.1.24 DSCH ID

The DSCH ID uniquely identifies a DSCH within a Node B Communication Context.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DSCH ID			INTEGER (0..255)	

9.2.1.25 DSCH Transport Format Set

This parameter defines the transport format set for DSCH.

Note: the parameter need to be defined. It may correspond to the DL TFS defined for DCH

9.2.1.26 DSCH Transport Format Combination Set

This parameter defines the transport format combination set for DSCH.

Note: to be defined. Each DSCH TFCI also indicates the code to be used

Note: the parameter need to be defined. It may correspond to the DL TFS defined for DCH

9.2.1.27 Frame Handling Priority

This parameter indicates the priority level to be used during the lifetime of the DCH/DSCH for temporary restriction of the allocated resources due overload reason.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Frame Handling Priority			INTEGER (0..15)	0=lower priority, 15=higher priority

9.2.1.28 Frame Offset

Frame Offset is the required offset between the dedicated channel downlink transmission frames (CFN, Connection Frame Number) and the broadcast channel frame offset (Cell Frame Number). The Frame_offset is used in the translation between Connection Frame Number (CFN) on Iub/Iur and least significant 8 bits of SFN (System Frame Number) on Uu. The Frame Offset is UE and cell specific.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Frame Offset			INTEGER (0..255)	Frames

9.2.1.29 IB_SG_DATA

Segment which is part of an Information Block.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IB SG DATA			Bit String	"SIB data" in segment as defined in ref: [18]TS-25.334 .

9.2.1.30 IB_SG_POS

First position of an Information Block segment in the SFN cycle ($IB_SG_POS < IB_SG_REP$).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IB SG POS			INTEGER (0.. 2046)	Only even positions allowed. Reference [18]TS-25.334

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			INTEGER (4, 8, 16, 32, 64, 128, 256, 512, 1024,2048)	Repetition period for the IB segment in frames

9.2.1.32 IB Type

The IB type identifies a specific system information block.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IB Type			Enumerated (MIB, SIB1, SIB2, SIB3, SIB4, SIB5, SIB6, SIB7, SIB8, SIB9, SIB10, SIB11, SIB12, SIB13, SIB13.1, SIB13.2, SIB13.3, SIB13.4, SIB14, ...)	

9.2.1.33 Indication Type

The indication type shall indicate the category of a failure with respect to its impact on the logical resources supported at Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Indication Type			ENUMERATED (No Failure, Service Impacting, ...)	Service Impacting – The failure has impacted on the logical resources supported at Node B.

9.2.1.34 Local Cell ID

The local cell ID represents resources in Node B that can be used for the configuration of a cell.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Local Cell ID			INTEGER(0 ...26843545 5)	

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 1 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, 1,2 ..50)	Unit dBm Granularity 1 dB

9.2.1.37 Measurement ID

The Measurement Id uniquely identifies any measurement per (Node B- or communication) control port.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Measurement ID			Integer(0 .. 2 ²⁰ -1)	

9.2.1.39 Report Characteristics

The report characteristics, defines how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Report characteristics				
>Report characteristics type			ENUMERATED(On Demand, Periodic, Event A, Event B, Event C, Event D, Event E, Event F,...)	
>Periodic Report Information	C – Periodic			
>>Report Periodicity	M		ENUMERATED (10ms...1min) step 10ms, (1min...1hr) step 1min	The frequency with which the Node B shall send measurement reports. First working assumption!
>Event A	C – Event A			
>>Measurement Threshold	M		Measurement Threshold	The threshold for which the Node B shall trigger a measurement report.
>>Measurement Hysteresis Time	O		ENUMERATED (10ms...1min) step 10ms,...	
>Event B	C – Event B			
>>Measurement Threshold	M		Measurement Threshold	The threshold for which the Node B shall trigger a measurement report.
>>Measurement Hysteresis Time	O		ENUMERATED (10ms...1min) step 10ms,...	
>Event C	C – Event C			
>>Measurement Increase/Decrease Threshold	M		Measurement Increase/Decrease Threshold	
>>Measurement Change Time	M		ENUMERATED (10ms...1min) step 10ms,...	The time the measurement entity shall rise on (in ms), in order to trigger a measurement report.
>Event D	C – Event D			
>>Measurement Increase/Decrease Threshold	M		Measurement Increase/Decrease Threshold	
>>Measurement Change Time	M		ENUMERATED (10ms...1min) step 10ms,...	The time the measurement entity shall fall (in ms), in order to trigger a measurement report.
>Event E	C – Event			

	E			
>>Measurement Threshold 1	M		Measurement Threshold	
>>Measurement Threshold 2	O		Measurement Threshold	
>>Measurement Hysteresis Time	O		ENUMERATED (10ms...1min) step 10ms,...	The hysteresis time in ms
>>Report Periodicity	O		ENUMERATED (10ms...1min) step 10ms, (1min...1hr) step 1min	The frequency with which the Node B shall send measurement reports.
>Event F	C – Event F			
>>Measurement Threshold 1	M		Measurement Threshold	
>>Measurement Threshold 2	O		Measurement Threshold	
>>Measurement Hysteresis Time	O		ENUMERATED (10ms...1min) step 10ms,...	The hysteresis time in ms
>>Report Periodicity	O		ENUMERATED (10ms...1min) step 10ms, (1min...1hr) step 1min	The frequency with which the Node B shall send measurement reports.

Condition	Explanation
C-Periodic	Valid if <i>Report Characteristics Type</i> IE indicates "periodic"
C-Event A	Valid if <i>Report Characteristics Type</i> IE indicates "Event A"
C-Event B	Valid if <i>Report Characteristics Type</i> IE indicates "Event B"
C-Event C	Valid if <i>Report Characteristics Type</i> IE indicates "Event C"
C-Event D	Valid if <i>Report Characteristics Type</i> IE indicates "Event D"
C-Event E	Valid if <i>Report Characteristics Type</i> IE indicates "Event E"
C-Event F	Valid if <i>Report Characteristics Type</i> IE indicates "Event F"

9.2.1.40 Message discriminator

This field is used to discriminate between Dedicated NBAP and Common NBAP messages.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Message Discriminator			ENUMERATED(Common, Dedicated)	

9.2.1.41 Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Message Type				
>Procedure ID		1		
>>Procedure Code			ENUMERATED (COMMON TRANSPORT CHANNEL SETUP, COMMON TRANSPORT CHANNEL RECONFIGURATION, COMMON TRANSPORT CHANNEL DELETION, BLOCK RESOURCE, UNBLOCK RESOURCE, AUDIT REQUIRED, AUDIT, COMMON MEASUREMENT INITIATION, COMMON MEASUREMENT REPORTING, COMMON MEASUREMENT TERMINATION, COMMON MEASUREMENT TERMINATION FAILURE, CELL SETUP, CELL RECONFIGURATION, CELL DELETION, RESOURCE STATUS INDICATION, SYSTEM INFORMATION UPDATE, RL SETUP, RL ADDITION, SYNCHRONISED RL RECONFIGURATION PREPARATION, SYNCHRONISED RL RECONFIGURATION COMMIT, SYNCHRONISED RL RECONFIGURATION CANCELLATION, UNSYNCHRONISED RL RECONFIGURATION, RL DELETION, DL POWER CONTROL, DEDICATED MEASUREMENT INITIATION, DEDICATED MEASUREMENT REPORTING, DEDICATED MEASUREMENT TERMINATION, DEDICATED MEASUREMENT TERMINATION FAILURE, RL FAILURE, RL RESTORATION, COMPRESSED MODE PREPARATION, COMPRESSED MODE COMMIT, COMPRESSED MODE CANCELLATION ERROR INDICATION, ...)	
>>Dmode	M		ENUMERATED (FDD, TDD, Common)	Common = common to FDD and TDD.
>Type of Message	M		ENUMERATED (Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.1.42 Minimum Spreading Factor

This parameter indicates the minimum spreading factor supported at a cell within the Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Minimum Spreading Factor			Enumerated(4, 16, 32, 64, 128, 256, 512)	

9.2.1.43 Node B Communication Context ID

The Node B Communication Context ID is the identifier of the Communication Context in the Node B, it corresponds to the dedicated resources which are necessary for an UE using one or more dedicated channels in a given Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Node B Communication Context ID			INTEGER (0..2 ²⁰ -1)	2 ²⁰ -1 is reserved value to indicate all the existing and future Node B communication contexts that can be reached by the communication control port (All NBCC).

9.2.1.44 Payload CRC presence Indicator

This parameter indicates whether FP payload 16 bit CRC is used or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Payload CRC Presence Indicator			ENUMERATED (CRC Included, CRC not included)	

9.2.1.45 Puncture limit

The Puncture limit limits the amount of puncturing that can be applied in order to minimise the number of dedicated physical channels.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Puncture limit			INTEGER (0..15)	0: 40% 1: 44 % ... 14: 96% 15: 100%

9.2.1.46 Resource Operational State

The resource operational state is used to indicate the current operational state of the associated resource following a Node B failure.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Resource Operational State			ENUMERATED (Enabled, Disabled)	When a resource is marked as disabled, then its child resources are implicitly disabled. Cell Resource hierarchy can be referred to [6].

9.2.1.47 Limited Power Increase

The parameter is used for a more efficient use of the inner loop DL power control for non real time data.

If the limited power increase is used, Node B shall not increase the DL power of the RL if it exceeds by more than *Power_Raise_Limit* dB the averaged DL power used in the last *DL_power_averaging_window_size* timeslots of the same RL.

Power_Raise_Limit and *DL_power_averaging_window_size* are parameters configured in the Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Limited Power Increase			ENUMERATED(Used, Not used)	

9.2.1.48 RL ID

The RL ID is the unique identifier for one RL associated with a UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RL ID			INTEGER (0..31)	

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)	

9.2.1.50 SIB Originator

Indicates if the Node B shall fill in the SIB information or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SIB Originator			Enumerated(Node B, CRNC)	

9.2.1.51 Shutdown Timer

The shutdown timer shall indicate the length of time available to the CRNC to perform the block of a resource when a Normal priority block is requested.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Shutdown Timer			INTEGER(1..3600)	Value in seconds

9.2.1.52 TFCI Presence

The TFCI Presence parameter indicates whether the TFCI shall be included.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TFCI presence			ENUMERATED (Present, not present)	

9.2.1.53 TFCS (Transport Format Combination Set)

The Transport Format Combination Set is defined as a set of Transport Format Combinations on a Coded Composite Transport Channel. It is the allowed Transport Format Combinations of the corresponding Transport Channels. The DL Transport Format Combination Set is applicable for DL Transport Channels.

[FDD - Where the UE is assigned access to one or more DSCH transport channels then the UTRAN has the choice of two methods for signalling the mapping between TFCI(field 2) values and the corresponding TFC:

Method #1 - TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given transport format combination (value of CTFC_DSCH). The CTFC_DSCH value specified in the first group applies for all values of TFCI(field 2) between 0 and the specified 'Max TFCI(field2) value'. The CTFC_DSCH value specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field2) value' specified in the last group plus one and the specified 'Max TFCI(field2) value' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value used by the UE in constructing its mapping table starting at the largest value reached in the previous group plus one.

Method #2 - Explicit

The mapping between TFCI(field 2) value and CTFC_DSCH is spelt out explicitly for each value of TFCI (field2)

]

[FDD - Where the UE is assigned access to one or more DSCH transport channels then the UTRAN has the choice of two methods for signalling the mapping between TFCI(field 2) values and the corresponding TFC:

Method #1 - TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given transport format combination (value of CTFC_DSCH). The CTFC_DSCH value specified in the first group applies for all values of TFCI(field 2) between 0 and the specified 'Max TFCI(field2) value'. The CTFC_DSCH value specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field2) value' specified in the last group plus one and the specified 'Max TFCI(field2) value' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value used by the UE in constructing its mapping table starting at the largest value reached in the previous group plus one.

Method #2 - Explicit

The mapping between TFCI(field 2) value and CTFC_DSCH is spelt out explicitly for each value of TFCI (field2)

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE <i>DSCH</i>				
> <i>No split in TFCI</i>				This choice is made if : a) The TFCs refers to the uplink OR b) The mode is FDD and none of the Node B communication contexts are assigned any DSCH transport channels OR c) The mode is TDD
>>TFCS		1 to <maxnoofTFCs>		The first instance of the parameter corresponds to TFC zero, the second to 1 and so on.
>>>CTFC	M		INTEGER(0..MaxCTFC-1)	Integer number calculated according to [18]TS-25.334
>>>CHOICE Gain Factors	C-PhysChan			
>>>>Signalled Gain Factors				
>>>>>Gain Factor β_c	M		Integer (0..15)	For UL DPCCCH or control part of PRACH in FDD; mapping in accordance to [9]TS-25.213
>>>>>Gain Factor β_D	M		Integer (0..15)	For UL DPDCH or data part of PRACH in FDD; mapping in accordance to [9]TS-25.213
>>>>>Reference TFC nr	O		Integer (0..15)	If this TFC is a reference TFC, this IE indicates the reference number
>>>>>Computed Gain Factors				
>>>>>Reference TFC nr	M		Integer (0..15)	Indicates the reference TFC to be used to calculate the gain factors for this TFC
> <i>There is a split in the TFCI</i>				This choice is made if : a) The TFCs refers to the downlink AND b) The mode is FDD and one of the Node B communication contexts is assigned one or more DSCH transport channels
>>Transport format combination_DCH		1 to <MaxTFCI_1_Comb>		The first instance of the parameter <i>Transport format combination_DCH</i> corresponds to TFCI (field 1) = 0, the second to TFCI (field 1) = 1 and so on.
>>>CTFC_DCH	M		Integer(0..MaxCTFC_DCH-1)	Integer number calculated according to [18]TS-25.334. The calculation of CTFC ignores any DSCH transport channels which may be assigned
>>Choice Signalling method				
>>>TFCI range				
>>>>TFC mapping on DSCH		1 to <MaxNoTFCIGroups>		
>>>>>Max TFCI(field2) value	M		Integer(1..1023)	This is the Maximum value in the range of TFCI(field2) values for which the specified CTFC_DSCH applies
>>>>>>CTFC_DSCH	M		Integer(0..MaxCTFC_DSCH-1)	Integer number calculated according to [18]TS-25.334. The calculation of CTFC ignores any DCH transport channels which may be assigned

>>>Explicit				
>>>>Transport format combination_DSCH		1 to <MaxTFCI_2_Combs>		The first instance of the parameter <i>Transport format combination_DSCH</i> corresponds to TFCI (field2) = 0, the second to TFCI (field 2) = 1 and so on.
>>>>>CTFC_DSCH	M		Integer(0..MaxCTFC_DSCH-1)	Integer number calculated according to [18]TS-25.334. The calculation of CTFC ignores any DCH transport channels which may be assigned

Condition	Explanation
PhysChan	The choice shall be present if the TFCS concerns a UL DPCH or PRACH channel in FDD, not when the TFCS is used for other physical channels.

Range bound	Explanation
MaxnoofTFCs	The maximum number of Transport Format Combinations (1024).
MaxTFCI_1_Combs	Maximum number of TFCI (field 1) combinations (given by 2 raised to the power of the length of the TFCI (field 1))
MaxTFCI_2_Combs	Maximum number of TFCI (field 2) combinations (given by 2 raised to the power of the length of the TFCI (field 2))
MaxNoTFCIGroups	Maximum number of groups, each group described in terms of a range of TFCI(field 2) values for which a single value of CTFC_DSCH applies
MaxCTFC	Maximum number of the CTFC value is calculated according to the following: $\sum_{i=1}^I (L_i - 1)P_i$ with the notation according to [18]TS-25.334
MaxCTFC_DCH	Maximum value of CTFC_DCH is calculated according to the following: $\sum_{i=1}^I (L_i - 1)P_i$ with the notation according to [18]TS-25.334 where only the DCH transport channels are taken into account in the calculation.
MaxCTFC_DSCH	Maximum value of CTFC_DSCH is calculated according to the following: $\sum_{i=1}^I (L_i - 1)P_i$ with the notation according to [18]TS-25.334 where only the DSCH transport channels are taken into account in the calculation..

9.2.1.54 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				
Dynamic Transport Format Information		1 to <maxTFcount>		
>Number of Transport blocks	M		INTEGER (0..4095)	
>Transport Block Size	C – Blocks		INTEGER (1..5000)	Bits
>CHOICE mode				
>>TDD				
>>>Transmission time interval	C-TTIdynamic	1 to <maxTTIcount>	Enumerated(10, 20, 40, 80)	
Semi-static Transport Format Information				
>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 nd 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.

9.2.1.55 ToAWE

TOAWE is the window endpoint. DL data frames are expected to be received before this window endpoint. TOAWE is defined with a positive value relative Latest Time of Arrival (LTOA). A data frame arriving after TOAWS gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
ToAWE			INTEGER (0..2559)	msec.

9.2.1.56 ToAWS

TOAWS is the window startpoint. DL data frames are expected to be received after this window startpoint. TOAWS is defined with a positive value relative Time of Arrival Window Endpoint (TOAWE). A data frame arriving before TOAWS gives a Timing Adjustment Control frame response.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
ToAWS			INTEGER (0..1279)	msec.

9.2.1.57 Transaction ID

The transaction ID is used to associate all the messages belonging to the same procedure. Messages belonging to the same procedure shall use the same transaction ID.

The transaction ID is determined by the initiating peer of a procedure. For common procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and signalled over the same Node B control port. For dedicated procedures the transaction ID shall uniquely identify a procedure within all ongoing parallel procedures initiated by one protocol peer, using the same procedure code and initiated towards the same Node B/CRNC context.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transaction ID			CHOICE INTEGER (0..127) or INTEGER (0..32767)	

9.2.1.58 Transport Layer Address

Transport Layer Address defines the transport address of the NodeB. For details on the Transport Address used see [2].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transport Layer Address			Bit string(1... 160, ...)	

9.2.1.59 UARFCN

Designate the central frequency of the channel number.

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
UARFCN			INTEGER (0..16383, ...)	corresponds to 0.0Hz.. 3276.6MHz ([15]25.404, section 5.4 and [15]25.405)

[Editor's Note: in RRC they have additional attributes such as the "raster" included in the IE]

9.2.1.60 UL FP mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL FP mode			ENUMERATED(Normal, Silent)	

9.2.1.61 UL interference level

The UL interference level indicates the UL interference at a certain cell[FDD]/time slot[TDD] under CRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL interference level			ENUMERATED(-128.0dBm..-60.0dBm)	Resolution is 0.1 dBm.

9.2.1.62 CFN Offset <new section>

Activation time for the compressed mode pattern.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CFN Offset			Integer (0..255)	Number of frames between CFN and the CM pattern activation.

9.2.1.63 TSTD Indicator

Indicates if TSTD shall be active or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TSTD Indicator			ENUMERATED(active, inactive)	

9.2.1.64 Diversity Control Field

The Diversity Control Field indicates if the current RL may, must or must not be combined with the already existing RLs.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Diversity Control Field			ENUMERATED(May, Must, Must not)	

9.2.1.65 Diversity Indication

The Diversity Indication indicates if the RL has been or has not been combined with another RL.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Diversity Indication			ENUMERATED (Combined, not combined)	

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			INTEGER (1..256)	

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[4] and [5]
Transmitted Carrier Power	<i>C – Threshold</i>		INTEGER(0..100)	According to mapping in 25.215/25.225[4] and [5]
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[5] (TDD only)
SIR	<i>C – Threshold</i>		INTEGER(0..63)	According to mapping in 25.215/25.225[4] and [5]
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 [4] and [5]
RSCP	<i>C – Threshold</i>		INTEGER(0..81)	According to mapping in 25.225[5] (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..62)	0: 0 dB 1: 0.5 dB 2: 1 dB ... 62: 31dB
Transmitted Carrier Power	<i>C – Threshold</i>		INTEGER(0..100)	According to mapping in [4] and [5]25.245/25.225
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.

9.2.2 FDD specific parameters

9.2.2.1 AICH Transmission Timing

IE/Group Name	Presence	Range	IE type and reference	Semantics description
AICH Transmission Timing			ENUMERATED (0, 1)	According to [18]25.334 chapter 10.2.6.17.

9.2.2.2 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip offset is used as offset for the DL DPCH relative to the Primary CPICH timing.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Chip Offset			INTEGER (0..38399)	Chips

9.2.2.3 Compressed mode method

Defines the method for generating the downlink compressed mode gap, as described in [\[8\]25.212](#).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Compressed Mode Method			ENUMERATED (None, Puncturing, SF/2, Higher Layer Scheduling)	None = restore the normal mode

9.2.2.4 D-Field Length

Defines the D Field size of the UL DPCH slot.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
D Field Length			ENUMERATED (1, 2)	

9.2.2.5 Diversity mode

Define the diversity mode to be applied.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Diversity Mode			ENUMERATED (None, STTD, Closed loop mode 1, Closed loop mode2)	

9.2.2.6 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, accordingly to [25.211\[7\]](#).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL DPCH slot format			INTEGER (0..16)	

9.2.2.7 DL frame type

This parameter defines if frame structure type 'A' or 'B' shall be used in downlink compressed mode. This is defined in TS [\[8\]25.212](#)

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Downlink Frame Type			ENUMERATED (TypeA, TypeB)	

9.2.2.8 DL Scrambling Code

DL scrambling code to be used by the RL. One cell may have multiple DL scrambling codes available.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL Scrambling Code			INTEGER (0..15)	0= Primary scrambling code of the cell 1...15= Secondary scrambling code

9.2.2.9 Multiplexing Position

Multiplexing Position specifies whether fixed or flexible positions of transport channels shall be used in the physical channel.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Multiplexing Position			ENUMERATED (Fixed, Flexible)	

9.2.2.10 FDD DL Channelisation Code Number

The DL Channelisation Code Number indicates the DL Channelisation Code number for a specific DL physical channel.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
FDD DL ChannalisationCode Number			INTEGER(0.. 255)	The maximum value is equal to the DL spreading factor –1

9.2.2.11 FDD TPC DL step size

This parameter indicates step size for the DL power adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
FDD TPC Downlink step size			ENUMERATED (0.5, 1)	

9.2.2.12 FDD S-CCPCH Offset

The Secondary CCPCH offset is defined as the time offset towards the Primary CCPCH in the cell. The offset is a multiple of 256 chips.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
FDD S-CCPCH Offset			INTEGER(0.. 149)	0: 0 chip 1: 256 chip 2: 512 chip .. 149: 38144 chip [TS-25.214]7

9.2.2.13

-deleted.

9.2.2.14 Gap Period

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Gap Period			INTEGER(0..255)	Frames

9.2.2.15 Gap Position Mode

The gap position can be fixed or adjustable, as defined in [\[8\]TS-25.212](#).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Gap Position Mode			ENUMERATED (Fixed, Flexible)	

9.2.2.16 Maximum Number of UL DPDCHs

This parameter is an UE Radio Access Capability parameter which is needed in rate matching algorithm.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Max Number of UL DPDCHs			INTEGER (1..6)	

9.2.2.17 Minimum UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH which is supported by UE. Needed by rate matching algorithm.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Min UL Channelisation Code length			ENUMERATED(4,8,16,32,64,128,256)	

9.2.2.18 Pattern Duration (PD)

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PD			INTEGER(0..2047, ...)	Frames If the value is set to '0', the Pattern Duration shall be interpreted as 'infinite'

9.2.2.19 PICH Mode

The number of paging indicators (PIs) in a PICH frame.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PICH Mode			Enumerated(18, 36, 72, 144)	Number of PI per frame

9.2.2.20 Power Control Mode

Power Control Mode specifies the uplink power mode applied during recovery period after each transmission gap in compressed mode. PCM can take 2 values (0 or 1). The different power control modes are described in [\[10\]TS-25.214](#).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Control Mode			ENUMERATED (0, 1,..)	

9.2.2.21 Power Offset

This IE defines a power offset respect the Downlink transmission power of a DPCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Offset			INTEGER (0...24)	Step 0.25 dB, range 0-6 dB

9.2.2.22 Power Resume Mode

Power Resume Mode selects the uplink power control method to calculate the initial transmit power after the gap. PRM can take two values (0 or 1) and is described in [\[10\]TS-25.214](#).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Resume Mode			ENUMERATED (0, 1,..)	Described in [10]TS-25.214

9.2.2.23 Preamble Signature

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Preamble Signatures			BIT STRING (16)	Bit 0=P0 Bit 1=P1 .. Bit 15=P15 [9][25.213]

9.2.2.24 Primary Scrambling code

The Primary scrambling code to be used in the cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Primary Scrambling Code			Integer (0 .. 511)	

9.2.2.25 Primary CPICH Power

Primary CPICH power is the power that shall be used for transmitting the P-CPICH in a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Primary CPICH power			Enumerated (-10, ..., 50)	Unit dBm Granularity 0.1 dB

9.2.2.26 Propagation Delay

Propagation delay is the one-way propagation delay of the radio signal from the MS to the Node B.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Propagation Delay			INTEGER (0..255)	Chips. Step size is 3 chips. 0=0 chips, 1=3 chips, ...

9.2.2.27 RACH Slot Format

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RACH Slot Format			ENUMERATED(0..3)	See [7]25.214 .

9.2.2.28 RACH sub Channel numbers

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RACH Sub Channel Numbers			BIT STRING (12)	Bit 0=Sub Channel Number 0 Bit 1=Sub Channel Number 1 ... Bit 11=Sub Channel Number 11

9.2.2.29 Scrambling code change

This parameter indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Scrambling Code Change			ENUMERATED (Change, No change)	

9.2.2.30 Scrambling Code Word Number

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Scrambling Code Word Number			INTEGER (0..255)	

9.2.2.31 Secondary CCPCH Slot Format

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Secondary CCPCH Slot Format			INTEGER(0..17)	

9.2.2.32 S-Field Length

The UE uses the S Field of the UL DPCCH slot to send the SSDT Cell ID to the network.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
S Field Length			ENUMERATED (1, 2)	

9.2.2.33 SSDT Cell Identity

The SSDT Cell ID is a temporary ID for SSDT assigned to a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SSDT Cell Identity			ENUMERATED (a, b.., h)	

9.2.2.34 SSDT Cell ID Length

The SSDT Cell ID Length parameter shows the length of the SSDT Cell ID.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell ID Length			ENUMERATED (Short, Medium, Long)	

9.2.2.35 SSDT Support Indicator

The SSDT Support Indicator indicates whether a RL supports SSDT or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SSDT Support Indicator			ENUMERATED (SSDT Supported, SSDT not supported).	

9.2.2.36 SSDT Indication

The SSDT Indication indicates whether SSDT is in use by the UE or not.

IE/Group name	Presence	Range	IE type and reference	Semantics description
SSDT Indication			ENUMERATED(SSDT Active in the UE, SSDT not Active in the UE)	

9.2.2.37 STTD Indicator

Indicates if STTD shall be active or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
STTD Indicator			ENUMERATED(active, inactive)	

9.2.2.38 T_Cell

Timing delay used for defining start of SCH, CPICH and the DL scrambling code(s) in a cell relative BFN. Resolution 256 chips.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
T Cell			Enumerated (0 , 1, ...,9)	0: 0 chip 1: 256 chip .. 9: 2304 chip [17][TS-25.402]

9.2.2.39 TFCI signalling mode

This parameter indicates if the normal or split mode is used for the TFCI. In the event that the split mode is to be used then the IE indicates whether the split is 'Hard' or 'Logical', and in the event that the split is 'Logical' the IE indicates the number of bits in TFCI (field 2).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TFCI signalling option	M		ENUMERATED (Normal, Split)	'Normal' : meaning no split in the TFCI field (either 'Logical' or 'Hard') 'Split' : meaning there is a split in the TFCI field (either 'Logical' or 'Hard')
Split type	C-IfSplit		Enumerated (Hard, Logical)	'Hard' : meaning that TFCI (field 1) and TFCI (field 2) are each 5 bits long and each field is block coded separately. 'Logical' : meaning that on the physical layer TFCI (field 1) and TFCI (field 2) are concatenated, field 1 taking the most significant bits and field 2 taking the least significant bits). The whole is then encoded with a single block code.
Length of TFCI2	C-SplitType		Integer (1..10)	This IE indicates the length measured in number of bits of TFCI (field2).

Condition	Explanation
IfSplit	This IE is only present if 'TFCI signalling option' = 'split'
SplitType	This IE is only present if 'Split type' = 'Logical'

9.2.2.40 TGD

Transmission Gap Distance is the duration of transmission between two consecutive transmission gaps within a transmission gap period, expressed in number of frames. In case there is only one transmission gap in the transmission gap period, this parameter shall be set to zero.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TGD			INTEGER(0..3839)	Slots

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			INTEGER (3,4,7,10,14)	Slot

9.2.2.42 Transmit Diversity Indicator

The Transmit Diversity Indicator indicates whether transmit diversity shall be active or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transmit Diversity Indicator			ENUMERATED(active, inactive)	

9.2.2.43 UL/DL compressed mode selection:

This parameter specifies whether compressed mode is used in UL only, DL only or both UL and DL

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL/DL compressed mode selection			ENUMERATED (UL only, DL only, both UL and DL)	

9.2.2.44 UL delta SIR

The delta in uplink Eb/No that shall be added to the SIR target used during compressed mode frames.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Uplink Delta SIR			Enumerated (-6..+10dB)	Step 0.1 dB.

9.2.2.45 UL delta SIR after

The delta in uplink SIR target that shall be added to the SIR target used one frame after the compressed mode frames.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Uplink Delta SIR after			Enumerated (-6..+10dB)	Step 0.1 dB.

9.2.2.46 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, accordingly to [\[7\]25.211](#)

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL DPCCH slot format			INTEGER (0..5)	

9.2.2.47 UL SIR

The UL SIR indicates a received UL SIR.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL SIR			ENUMERATED (-8.2 .. 17.3)	Step 0.1 dB

9.2.2.48 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL scrambling code				
>UL scrambling code number	M		INTEGER (0.. $2^{24}-1$)	
>UL scrambling code length	M		ENUMERATED(Short, Long)	

9.2.2.49 Preamble threshold

The IE sets the threshold for preamble detection. The threshold is set in dB over the interference level. A Preamble threshold equal to n dB means that the preamble power must be received n dB over the interference in order to be acknowledged.

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
Preamble threshold			INTEGER (0, 1, ..., 72)	0: 0 dB 1: 0.5 dB 2: 1 dB .. 72: 36.0 dB

9.2.2.50 PDSCH code mapping

This IE indicates the association between each possible value of TFCI(field 2) and the corresponding PDSCH channelisation code. There are three ways which the UTRAN must choose between in order to signal the mapping information, these are described below. The signalling capacity consumed by the different methods will typically vary depending on the way in which the UTRAN configures usage of the DSCH.

Method #1 - Using code range

The mapping is described in terms of a number of groups, each group associated with a given spreading factor. The UE maps TFCI(field 2) to 'start' of Group = 1. The PDSCH code used for TFCI(field 2) = 1, is given by the SF and code number = 'PDSCH code start' + 1. This continues, with unit increments in the value of TFC mapping to unit increments in code number up until the point that code number = 'PDSCH code stop'. The process continues in the same way for the next group with the TFCI(field 2) value used by the UE when constructing its mapping table starting at the largest value reached in the previous group plus one. In the event that 'PDSCH code start' = 'PDSCH code stop' then this is to be interpreted as defining the mapping between the channelisation code and a single TFCI (ie. TFCI(field 2) should not be incremented twice).

Note that each value of TFCI (field 2) maps to a given code number and when the 'multi-code info' parameter is greater than 1, then each value of TFCI (field 2) actually maps to a set of PDSCH codes. In this case contiguous codes are assigned, starting at the channelisation code denoted by the 'code number' parameter and including all codes with code numbers up to and including 'code number' - 1 + the value given in the parameter 'multi-code info'.

Method #2 - Using TFCI range

The mapping is described in terms of a number of groups, each group corresponding to a given PDSCH channelisation code. The PDSCH code specified in the first group applies for all values of TFCI(field 2) between 0 and the specified

'Max TFCI(field2)'. The PDSCH code specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field2) value' specified in the last group plus one and the specified 'Max TFCI(field2)' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value starting at the largest value reached in the previous group plus one.

Method #3 - Explicit

The mapping between TFCI(field 2) value and PDSCH channelisation code is spelt out explicitly for each value of TFCI (field2)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
DL Scrambling Code	M		INTEGER (0..15)	Scrambling code on which PDSCH is transmitted. 0= Primary scrambling code of the cell 1...15 = Secondary scrambling code

<i>Choice signalling method</i>				
<i>>code range</i>				
>>PDSCH code mapping		1 to <MaxNoCodeGroups>		
>>Spreading factor	M		Enumerated(4, 8, 16, 32, 64, 128, 256)	
>>multi-code info	M		Integer(1..16)	This parameter indicates the number of PDSCH transmitted to the UE. The PDSCH codes all have the same SF as denoted by the Spreading factor parameter. Contiguous codes are assigned, starting at the channelisation code denoted by the spreading factor and code number parameter and including all codes, with code numbers up to and including 'code number' - 1 + 'multi-code info'. Note that 'code number'-1+'multi-code info' will not be allowed to exceed 'maxCodeNumComp'-1
>>Code number	M		Integer(0..maxCodeNumComp-1)	PDSCH code start, Numbering as described in [18]TS-25.334
>>Code number	M		Integer(0..maxCodeNumComp-1)	PDSCH code stop, Numbering as described in [18]TS-25.334
<i>>TFCI range</i>				
>>DSCH mapping		1 to <MaxNoTFCIGroups>		
>>>Max TFCI(field2) value	M		Integer(1..1023)	This is the maximum value in the range of TFCI(field 2) values for which the specified PDSCH code applies
>>>Spreading factor	M		Enumerated(4, 8, 16, 32, 64, 128, 256)	SF of PDSCH code
>>>multi-code info	M		Integer(1..16)	Semantics as described for this parameter above
>>>Code number	M		Integer(0..maxCodeNumComp-1)	Code number of PDSCH code. Numbering as described in [18]TS-25.334
<i>>Explicit</i>				
>>PDSCH code		1 to MaxTFCI_2_Combs		The first instance of the parameter PDSCH code corresponds to TFCI (field2) = 0, the second to TFCI(field 2) = 1 and so on.
>>>Spreading factor	M		Enumerated(4, 8, 16, 32, 64, 128, 256)	SF of PDSCH code
>>>multi-code info	M		Integer(1..16)	Semantics as described for this parameter above
>>>Code number	M		Integer(0..maxCodeNumComp-1)	Code number of PDSCH code. Numbering as described in [18]TS-25.334

Range Bound	Explanation
MaxCodeNumComp	Maximum number of codes at the defined spreading factor, within the complete code tree.
MaxTFCI_2_Combs	Maximum number of TFCI (field 2) combinations (given by 2 raised to the power of the length of the TFCI field 2)
MaxNoTFCIGroups	Maximum number of groups, each group described in terms of a range of TFCI(field 2) values for which a single PDSCH code applies.
MaxNoCodeGroups	Maximum number of groups, each group described in terms of a range of PDSCH channelisation code values for which a single spreading factor applies.

9.2.2.51 Power Adjustment Type

Defines the characteristic of the power adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Adjustment Type			ENUMERATED (None, Common, Individual)	

9.2.2.52 Max Adjustment Step

Defines the maximum allowed value for the change of DL power level in one slot period that can be utilised by the Power drifting prevention algorithm. This value does not include the DL inner loop PC adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Maximum Adjustment Step			INTEGER (0.1, 0.2, 0.3, 0.4, 0.5, 0.6, 0.7, 0.8, 0.9, 1)	dB

9.2.2.53 Max Adjustment Period

Adjustment Period IE defines the period at the end of which the DL transmitted power shall converge, [with an accuracy of ± 0.25 dB] to the reference power value assuming zero-sum alternating stream of DL PC commands received in that period of time.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Max Adjustment Period			INTEGER (10, 20, 30, 40, ..., 500)	Slots

9.2.2.54 DL or Global Capacity Credit

The capacity credit indicates to the CRNC the Downlink or global capacity of a node B or of a local cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL or Global Capacity Credit			INTEGER (0..65535)	

9.2.2.55 UL Capacity Credit

The capacity credit indicates to the CRNC the Uplink capacity of a node B or of a local cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL Capacity Credit			INTEGER (0..65535)	

9.2.2.56 Common Channels Capacity Consumption Law

The capacity consumption law indicates the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor.

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Common Transport Channel Setup

In case of usage of the Common Transport Channel Deletion, the consumption cost given in the consumption law must be credited to the Capacity Credit.

If the modelling of the internal resource capability of the B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Common Channels Capacity Consumption Law				
SF allocation law		<maxNumberOfSF>		For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.
DL cost	M		INTEGER (0..65535)	
UL cost	M		INTEGER (0..65535)	

9.2.2.57 Dedicated Channels Capacity Consumption Law

The capacity consumption law indicates the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor.

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Radio Link Setup
- Radio Link Addition
- Radio Link Reconfiguration (case of increase of the SF)

In case of usage of the Radio Link Deletion or of the Radio Link Reconfiguration (case of decrease of the SF) procedure, the consumption cost given in the consumption law shall be credited to the Capacity Credit.

If the modelling of the internal resource capability of the B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Dedicated Channels Capacity Consumption Law				
>SF allocation law		<maxNumberOfSF>		For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.
>>DL cost	M		INTEGER (0..65535)	
>>UL cost	M		INTEGER (0..65535)	

9.2.2.58 QE-Selector

The QE-Selector indicates from which source the value for the quality estimate (QE) shall be taken.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
QE-Selector			ENUMERATED(selected DCH, non-selected DCH)	

9.2.2.59 RL Set ID

The RL Set ID uniquely identifies one RL Set within a Node B Communication Context.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RL Set ID			INTEGER (0..31)	

9.2.3 TDD specific Parameters

9.2.3.1 Burst Type

The Burst Type as described in [\[19\], TS25.221](#).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Burst Type			ENUMERATED (Type1, Type2)	

9.2.3.2 CCTrCH ID

The CCTrCH ID identifies unambiguously a CCTrCH inside a Radio Link.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CCTrCH ID			INTEGER (0..15)	

9.2.3.3 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the Code Groups, Scrambling Codes, Midambles and Toffset (see table 9 of [20]TS25.223)

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell Parameter ID			INTEGER (0..127)	

9.2.3.4 DPCH ID

The DPCH ID identifies unambiguously a DPCH inside a Radio Link.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DPCH ID	M		INTEGER (0..239)	

9.2.3.5 Max PRACH Midamble shift

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Max PRACH Midamble Shifts			ENUMERATED (4, 8)	

9.2.3.6 Midamble shift

Different bursts transmitted simultaneously, using the same midamble code shall use different Midamble Shifts.

The 256 chip midamble supports 3 different time shifts, the 512 chips midamble may support 8 or even 16 time shifts.

The range of this parameter is 0 .. 15 for long midamble and 0 .. 2 for short midamble.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Midamble Shift			INTEGER (0..15)	

9.2.3.7 Paging Indicator Length

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Paging Indicator Length			INTEGER (2 4 8)	number of symbols in the page indicator / see [19]TS25.224

9.2.3.8 PCCPCH Power

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PCCPCH Power			INTEGER(-15..+40)	Unit dBm Granularity 0.1 dB

9.2.3.9 PRACH Midamble

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PRACH Midamble			ENUMERATED (Inverted, Direct)	

9.2.3.10 SCH Time Slot

The SCH Time Slot is only applicable if the value of Sync Case IE is Case 2.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SCH Time Slot			INTEGER(0..6)	

9.2.3.11 Repetition Length

The Repetition Length represents the number of consecutive Radio Frames inside a Repetition Period in which the same Time Slot is assigned to the same Physical Channel.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Repetition Length			INTEGER(1..63)	

9.2.3.12 Repetition Period

The Repetition Period represents the number of consecutive Radio Frames after which the same assignment scheme of Time Slots to a Physical Channel is repeated. This means that if the Time Slot K is assigned to a physical channel in the Radio Frame J , it is assigned to the same physical channel also in all the Radio Frames $J+n*Repetition\ Period$ (where n is an integer).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Repetition Period			ENUMERATED(1,2,4,8,16,32,64)	

9.2.3.13 Sync case

The SCH and PCCPCH are mapped on one or two downlink slots per frame. There are two cases of SCH and PCCPCH allocation as follows:

- Case 1) SCH and PCCPCH allocated in a single TS#k
- Case 2) SCH allocated in two TS: TS#k and TS#k+8
PCCPCH allocated in TS#k

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Sync Case			Integer (1..2)	

9.2.3.14 TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD Channelisation Code			ENUMERATED ((1/1), (2/1), (2/2), (4/1),...(4/4), (8/1), (8/8), (16/1)... (16/16))	

9.2.3.15 TDD Physical Channel Offset

The Offset represents the phase information for the allocation of a physical channel. (SFN mod Repetition Period = Offset).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD Physical Channel Offset			INTEGER (0..63)	

9.2.3.16 TDD TPC DL step size

This parameter indicates step size for the DL power adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD TPC Downlink step size			ENUMERATED (1, 2, 3)	

9.2.3.17 TFCI Coding

The TFCI Coding describes the way how the TFCI bits are coded. By default 1 TFCI bit is coded with 4 bits, 2 TFCI bits are coded with 8 bits, 3-5 TFCI bits are coded with 16 bits and 6-10 TFCI bits are coded with 32 bits.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TFCI Coding			Enumerated (4, 8, 16, 32)	

9.2.3.18 Time Slot

The Time Slot represents the minimum time interval inside a Radio Frame that can be assigned to a Physical Channel.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Time Slot			INTEGER (0..14)	

9.2.3.19 Time Slot Direction

This parameter indicates whether the TS in the cell is used in Uplink or Downlink direction.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Time Slot Direction			Enumerated (UL, DL)	

9.2.3.20 Time Slot Status

This parameter indicates whether the TS in the cell is active or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Time Slot Status			Enumerated (active, notActive)	

9.2.3.21 Transmission Diversity Applied

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transmission Diversity Applied			Boolean	

9.2.3.22 USCH ID

The USCH ID uniquely identifies a USCH within a Node B Communication Context.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
USCH ID			INTEGER (0..255)	

9.2.3.23 Block STTD Indicator

Indicates if Block STTD antenna diversity is applied or not to the PCCPCH.

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
Block STTD Indicator			ENUMERATED(active, inactive)	

9.2.3.24 PDSCH Set Id

The PDSCH Set Id identifies unambiguously a PDSCH Set inside a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PDSCH Set Id			INTEGER (0..255)	See [6]25.430

9.2.3.25 PUSCH Set Id

The PUSCH Set Id identifies unambiguously a PUSCH Set inside a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PUSCH Set Id			INTEGER (0..255)	See [6]25.430

9.2.3.26 PDSCH ID

The PDSCH ID identifies unambiguously a PDSCH inside a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PDSCH ID			INTEGER (0..255)	

9.2.3.27 PUSCH ID

The PUSCH ID identifies unambiguously a PUSCH inside a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PUSCH ID			INTEGER (0..255)	

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

This chapter is for the time being only **INFORMATIVE**.

In case of misalignment with the tabular format of the messages in chapter 9.1 the ASN.1 needs to be aligned with the tabular format.

The setting of the criticality field and the level on which criticality is set for the IEs and sequences of IEs is still to be decided upon.

9.3.1 Usage of Private Message mechanism for non-standard use

The private message mechanism for non-standard use may be used

- For special operator- (and/or vendor) specific features considered not to be part of the basic functionality, i.e. the functionality required for a complete and high-quality specification in order to guarantee multi-vendor inter-operability.
- By vendors for research purposes, e.g. to implement and evaluate new algorithms/features before such features are proposed for standardisation

The private message mechanism shall not be used for basic functionality. Such functionality shall be standardised.

9.3.2 PDU Description for NBAP

```
-- *****
--
-- Elementary Procedure definitions
--
-- *****

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

BEGIN

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

IMPORTS
    Criticality,
    ProcedureID,
    MessageDiscriminator,
    TransactionID
FROM NBAP-CommonDataTypes
```

CommonTransportChannelSetupRequestFDD,
CommonTransportChannelSetupRequestTDD,
CommonTransportChannelSetupResponse,
CommonTransportChannelSetupFailure,
CommonTransportChannelReconfigurationRequestFDD,
CommonTransportChannelReconfigurationRequestTDD,
CommonTransportChannelReconfigurationResponse,
CommonTransportChannelReconfigurationFailure,
CommonTransportChannelDeletionRequest,
CommonTransportChannelDeletionResponse,
BlockResourceRequest,
BlockResourceResponse,
BlockResourceFailure,
UnblockResourceIndication,
AuditRequiredIndication,
AuditRequest,
AuditResponse,
CommonMeasurementInitiationRequest,
CommonMeasurementInitiationResponse,
CommonMeasurementInitiationFailure,
CommonMeasurementReport,
CommonMeasurementTerminationRequest,
CommonMeasurementFailureIndication,
CellSetupRequestFDD,
CellSetupRequestTDD,
CellSetupResponse,
CellSetupFailure,
CellReconfigurationRequestFDD,
CellReconfigurationRequestTDD,
CellReconfigurationResponse,
CellReconfigurationFailure,
CellDeletionRequest,
CellDeletionResponse,
ResourceStatusIndication,
SystemInformationUpdateRequest,
SystemInformationUpdateResponse,
SystemInformationUpdateFailure,
RadioLinkSetupRequestFDD,
RadioLinkSetupRequestTDD,
RadioLinkSetupResponseFDD,
RadioLinkSetupResponseTDD,
RadioLinkSetupFailureFDD,
RadioLinkSetupFailureTDD,
RadioLinkAdditionRequestFDD,
RadioLinkAdditionRequestTDD,
RadioLinkAdditionResponseFDD,
RadioLinkAdditionResponseTDD,
RadioLinkAdditionFailureFDD,
RadioLinkAdditionFailureTDD,
RadioLinkReconfigurationPrepareFDD,
RadioLinkReconfigurationPrepareTDD,
RadioLinkReconfigurationReady,
RadioLinkReconfigurationFailure,
RadioLinkReconfigurationCommit,

RadioLinkReconfigurationCancel,
RadioLinkReconfigurationRequestFDD,
RadioLinkReconfigurationRequestTDD,
RadioLinkReconfigurationResponse,
RadioLinkDeletionRequest,
RadioLinkDeletionResponse,
DL-PowerControlRequest,
DedicatedMeasurementInitiationRequest,
DedicatedMeasurementInitiationResponse,
DedicatedMeasurementInitiationFailure,
DedicatedMeasurementReport,
DedicatedMeasurementTerminationRequest,
DedicatedMeasurementFailureIndication,
RadioLinkFailureIndication,
RadioLinkRestoreIndication,
CompressedModePrepare,
CompressedModeReady,
CompressedModeCommit,
CompressedModeFailure,
CompressedModeCancel,
ErrorIndication,
PrivateMessage,
PhysicalSharedChannelReconfigurationRequestTDD,
PhysicalSharedChannelReconfigurationResponseTDD,
PhysicalSharedChannelReconfigurationFailureTDD

FROM NBAP-PDU-Contents

id-audit,
id-auditRequired,
id-blockResource,
id-cellDeletion,
id-cellReconfiguration,
id-cellSetup,
id-commonMeasurementFailure,
id-commonMeasurementInitiation,
id-commonMeasurementReport,
id-commonMeasurementTermination,
id-commonTransportChannelDelete,
id-commonTransportChannelReconfigure,
id-commonTransportChannelSetup,
id-compressedModeCancellation,
id-compressedModeCommit,
id-compressedModePreparation,
id-dedicatedMeasurementFailure,
id-dedicatedMeasurementInitiation,
id-dedicatedMeasurementReport,
id-dedicatedMeasurementTermination,
id-downlinkPowerControl,
id-errorIndication,
id-physicalSharedChannelReconfiguration,
id-privateMessage,
id-radioLinkAddition,
id-radioLinkDeletion,
id-radioLinkFailure,

```

id-radioLinkRestoration,
id-radioLinkSetup,
id-resourceStatusIndication,
id-synchronisedRadioLinkReconfigurationCancellation,
id-synchronisedRadioLinkReconfigurationCommit,
id-synchronisedRadioLinkReconfigurationPreparation,
id-systemInformationUpdate,
id-unblockResource,
id-unSynchronisedRadioLinkReconfiguration
FROM NBAP-Constants;

-- *****
--
-- Interface Elementary Procedure Class
--
-- *****

NBAP-ELEMENTARY-PROCEDURE ::= CLASS {
    &InitiatingMessage           ,
    &SuccessfulOutcome           OPTIONAL,
    &UnsuccessfulOutcome        OPTIONAL,
    &Outcome                     OPTIONAL,
    &messageDiscriminator        MessageDiscriminator,
    &procedureID                 ProcedureID    UNIQUE,
    &criticality                 Criticality     DEFAULT ignore
}

WITH SYNTAX {
    INITIATING MESSAGE           &InitiatingMessage
    [SUCCESSFUL OUTCOME          &SuccessfulOutcome]
    [UNSUCCESSFUL OUTCOME       &UnsuccessfulOutcome]
    [OUTCOME                     &Outcome]
    MESSAGE DISCRIMINATOR        &messageDiscriminator
    PROCEDURE ID                 &procedureID
    [CRITICALITY                 &criticality]
}

-- *****
--
-- Interface PDU Definition
--
-- *****

NBAP-PDU ::= CHOICE {
    initiatingMessage           InitiatingMessage,
    succesfulOutcome            SuccessfulOutcome,
    unsuccessfullOutcome        UnsuccessfulOutcome,
    outcome                     Outcome,
    ...
}

InitiatingMessage ::= SEQUENCE {
    procedureID                 NBAP-ELEMENTARY-PROCEDURE.&procedureID  ( {NBAP-ELEMENTARY-PROCEDURES} ),
    criticality                 NBAP-ELEMENTARY-PROCEDURE.&criticality  ( {NBAP-ELEMENTARY-PROCEDURES} { @procedureID } ),

```

```

messageDiscriminator NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
transactionID TransactionID,
value NBAP-ELEMENTARY-PROCEDURE.&InitiatingMessage({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

SuccessfulOutcome ::= SEQUENCE {
  procedureID NBAP-ELEMENTARY-PROCEDURE.&procedureID ({NBAP-ELEMENTARY-PROCEDURES}),
  criticality NBAP-ELEMENTARY-PROCEDURE.&criticality ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
  messageDiscriminator NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
  transactionID TransactionID,
  value NBAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

UnsuccessfulOutcome ::= SEQUENCE {
  procedureID NBAP-ELEMENTARY-PROCEDURE.&procedureID ({NBAP-ELEMENTARY-PROCEDURES}),
  criticality NBAP-ELEMENTARY-PROCEDURE.&criticality ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
  messageDiscriminator NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
  transactionID TransactionID,
  value NBAP-ELEMENTARY-PROCEDURE.&UnsuccessfulOutcome({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

Outcome ::= SEQUENCE {
  procedureID NBAP-ELEMENTARY-PROCEDURE.&procedureID ({NBAP-ELEMENTARY-PROCEDURES}),
  criticality NBAP-ELEMENTARY-PROCEDURE.&criticality ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
  messageDiscriminator NBAP-ELEMENTARY-PROCEDURE.&messageDiscriminator({NBAP-ELEMENTARY-PROCEDURES}{@procedureID}),
  transactionID TransactionID,
  value NBAP-ELEMENTARY-PROCEDURE.&Outcome ({NBAP-ELEMENTARY-PROCEDURES}{@procedureID})
}

-- *****
--
-- Interface Elementary Procedure List
--
-- *****

NBAP-ELEMENTARY-PROCEDURES NBAP-ELEMENTARY-PROCEDURE ::= {
  NBAP-ELEMENTARY-PROCEDURES-CLASS-1 |
  NBAP-ELEMENTARY-PROCEDURES-CLASS-2 ,
  ...
}

NBAP-ELEMENTARY-PROCEDURES-CLASS-1 NBAP-ELEMENTARY-PROCEDURE ::= {
  cellSetupFDD |
  cellSetupTDD |
  cellReconfigurationFDD |
  cellReconfigurationTDD |
  cellDeletion |
  commonTransportChannelSetupFDD |
  commonTransportChannelSetupTDD |
  commonTransportChannelReconfigureFDD |
  commonTransportChannelReconfigureTDD |
  commonTransportChannelDelete |
  audit |
  blockResource |
}

```

```

radioLinkSetupFDD
radioLinkSetupTDD
systemInformationUpdate
commonMeasurementInitiation
radioLinkAdditionFDD
radioLinkAdditionTDD
radioLinkDeletion
synchronisedRadioLinkReconfigurationPreparationFDD
synchronisedRadioLinkReconfigurationPreparationTDD
unSynchronisedRadioLinkReconfigurationFDD
unSynchronisedRadioLinkReconfigurationTDD
dedicatedMeasurementInitiation
physicalSharedChannelReconfiguration
compressedModePreparation
...
}

NBAP-ELEMENTARY-PROCEDURES-CLASS-2 NBAP-ELEMENTARY-PROCEDURE ::= {
  resourceStatusIndication
  auditRequired
  commonMeasurementReport
  commonMeasurementTermination
  commonMeasurementFailure
  synchronisedRadioLinkReconfigurationCommit
  synchronisedRadioLinkReconfigurationCancellation
  radioLinkFailure
  radioLinkRestoration
  dedicatedMeasurementReport
  dedicatedMeasurementTermination
  dedicatedMeasurementFailure
  downlinkPowerControlFDD
  compressedModeCommit
  compressedModeCancellation
  unblockResource
  errorIndication
  privateMessage
  ...
}

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

-- Class 1

-- *** CellSetup (FDD) ***
cellSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CellSetupRequestFDD
  SUCCESSFUL OUTCOME      CellSetupResponse
  UNSUCCESSFUL OUTCOME    CellSetupFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID             { procedureCode id-cellSetup, ddMode fdd }
}

```



```

}
CRITICALITY reject
}

-- *** CellSetup (TDD) ***
cellSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE CellSetupRequestTDD
  SUCCESSFUL OUTCOME CellSetupResponse
  UNSUCCESSFUL OUTCOME CellSetupFailure
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID { procedureCode id-cellSetup, ddMode tdd }
  CRITICALITY reject
}

-- *** CellReconfiguration(FDD) ***
cellReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE CellReconfigurationRequestFDD
  SUCCESSFUL OUTCOME CellReconfigurationResponse
  UNSUCCESSFUL OUTCOME CellReconfigurationFailure
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID { procedureCode id-cellReconfiguration, ddMode fdd }
  CRITICALITY reject
}

-- *** CellReconfiguration(TDD) ***
cellReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE CellReconfigurationRequestTDD
  SUCCESSFUL OUTCOME CellReconfigurationResponse
  UNSUCCESSFUL OUTCOME CellReconfigurationFailure
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID { procedureCode id-cellReconfiguration, ddMode tdd }
  CRITICALITY reject
}

-- *** CellDeletion ***
cellDeletion NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE CellDeletionRequest
  SUCCESSFUL OUTCOME CellDeletionResponse
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID { procedureCode id-cellDeletion, ddMode common }
  CRITICALITY reject
}

-- *** CommonTransportChannelSetup (FDD) ***
commonTransportChannelSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE CommonTransportChannelSetupRequestFDD
  SUCCESSFUL OUTCOME CommonTransportChannelSetupResponse
  UNSUCCESSFUL OUTCOME CommonTransportChannelSetupFailure
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID { procedureCode id-commonTransportChannelSetup, ddMode fdd }
  CRITICALITY reject
}

-- *** CommonTransportChannelSetup (TDD) ***
commonTransportChannelSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {

```

```

INITIATING MESSAGE      CommonTransportChannelSetupRequestTDD
SUCCESSFUL OUTCOME      CommonTransportChannelSetupResponse
UNSUCCESSFUL OUTCOME    CommonTransportChannelSetupFailure
MESSAGE DISCRIMINATOR   common
PROCEDURE ID            { procedureCode id-commonTransportChannelSetup, ddMode tdd }
CRITICALITY             reject
}

-- *** CommonTransportChannelReconfigure (FDD) ***
commonTransportChannelReconfigureFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CommonTransportChannelReconfigurationRequestFDD
  SUCCESSFUL OUTCOME      CommonTransportChannelReconfigurationResponse
  UNSUCCESSFUL OUTCOME    CommonTransportChannelReconfigurationFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-commonTransportChannelReconfigure, ddMode fdd }
  CRITICALITY             reject
}

-- *** CommonTransportChannelReconfigure (TDD) ***
commonTransportChannelReconfigureTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CommonTransportChannelReconfigurationRequestTDD
  SUCCESSFUL OUTCOME      CommonTransportChannelReconfigurationResponse
  UNSUCCESSFUL OUTCOME    CommonTransportChannelReconfigurationFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-commonTransportChannelReconfigure, ddMode tdd }
  CRITICALITY             reject
}

-- *** CommonTransportChannelDelete ***
commonTransportChannelDelete NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CommonTransportChannelDeletionRequest
  SUCCESSFUL OUTCOME      CommonTransportChannelDeletionResponse
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-commonTransportChannelDelete, ddMode common }
  CRITICALITY             reject
}

-- *** Audit ***
audit NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      AuditRequest
  SUCCESSFUL OUTCOME      AuditResponse
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-audit, ddMode common }
  CRITICALITY             reject
}

-- *** BlockResourceRequest ***
blockResource NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      BlockResourceRequest
  SUCCESSFUL OUTCOME      BlockResourceResponse
  UNSUCCESSFUL OUTCOME    BlockResourceFailure
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-blockResource, ddMode common }
  CRITICALITY             reject
}

```

```
}

-- *** RadioLinkSetup (FDD) ***
radioLinkSetupFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkSetupRequestFDD
    SUCCESSFUL OUTCOME      RadioLinkSetupResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureFDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-radioLinkSetup, ddMode fdd }
    CRITICALITY             reject
}

-- *** RadioLinkSetup (TDD) ***
radioLinkSetupTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkSetupRequestTDD
    SUCCESSFUL OUTCOME      RadioLinkSetupResponseTDD
    UNSUCCESSFUL OUTCOME    RadioLinkSetupFailureTDD
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-radioLinkSetup, ddMode tdd }
    CRITICALITY             reject
}

-- *** SystemInformationUpdate ***
systemInformationUpdate NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      SystemInformationUpdateRequest
    SUCCESSFUL OUTCOME      SystemInformationUpdateResponse
    UNSUCCESSFUL OUTCOME    SystemInformationUpdateFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-systemInformationUpdate, ddMode common }
    CRITICALITY             reject
}

-- *** CommonMeasurementInitiation ***
commonMeasurementInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonMeasurementInitiationRequest
    SUCCESSFUL OUTCOME      CommonMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME    CommonMeasurementInitiationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonMeasurementInitiation, ddMode common }
    CRITICALITY             reject
}

-- *** RadioLinkAddition (FDD) ***
radioLinkAdditionFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      RadioLinkAdditionRequestFDD
    SUCCESSFUL OUTCOME      RadioLinkAdditionResponseFDD
    UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureFDD
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-radioLinkAddition, ddMode fdd }
    CRITICALITY             reject
}

-- *** RadioLinkAddition (TDD) ***
radioLinkAdditionTDD NBAP-ELEMENTARY-PROCEDURE ::= {
```

```

INITIATING MESSAGE      RadioLinkAdditionRequestTDD
SUCCESSFUL OUTCOME      RadioLinkAdditionResponseTDD
UNSUCCESSFUL OUTCOME    RadioLinkAdditionFailureTDD
MESSAGE DISCRIMINATOR   dedicated
PROCEDURE ID            { procedureCode id-radioLinkAddition, ddMode tdd }
CRITICALITY             reject
}

-- *** RadioLinkDeletion ***
radioLinkDeletion NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkDeletionRequest
  SUCCESSFUL OUTCOME      RadioLinkDeletionResponse
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-radioLinkDeletion, ddMode common }
  CRITICALITY             reject
}

-- *** SynchronisedRadioLinkReconfigurationPreparation (FDD) ***
synchronisedRadioLinkReconfigurationPreparationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkReconfigurationPrepareFDD
  SUCCESSFUL OUTCOME      RadioLinkReconfigurationReady
  UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
  CRITICALITY             reject
}

-- *** SynchronisedRadioLinkReconfigurationPreparation (TDD) ***
synchronisedRadioLinkReconfigurationPreparationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkReconfigurationPrepareTDD
  SUCCESSFUL OUTCOME      RadioLinkReconfigurationReady
  UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
  CRITICALITY             reject
}

-- *** UnSynchronisedRadioLinkReconfiguration (FDD) ***
unSynchronisedRadioLinkReconfigurationFDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkReconfigurationRequestFDD
  SUCCESSFUL OUTCOME      RadioLinkReconfigurationResponse
  UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
  CRITICALITY             reject
}

-- *** UnSynchronisedRadioLinkReconfiguration (TDD) ***
unSynchronisedRadioLinkReconfigurationTDD NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      RadioLinkReconfigurationRequestTDD
  SUCCESSFUL OUTCOME      RadioLinkReconfigurationResponse
  UNSUCCESSFUL OUTCOME    RadioLinkReconfigurationFailure
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
}

```

```

    CRITICALITY          reject
  }

-- *** DedicatedMeasurementInitiation ***
dedicatedMeasurementInitiation NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE    DedicatedMeasurementInitiationRequest
  SUCCESSFUL OUTCOME    DedicatedMeasurementInitiationResponse
  UNSUCCESSFUL OUTCOME  DedicatedMeasurementInitiationFailure
  MESSAGE DISCRIMINATOR dedicated
  PROCEDURE ID          { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
  CRITICALITY          reject
}

-- *** PhysicalSharedChannelReconfiguration (TDD only) ***
physicalSharedChannelReconfiguration NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE    PhysicalSharedChannelReconfigurationRequestTDD
  SUCCESSFUL OUTCOME    PhysicalSharedChannelReconfigurationResponseTDD
  UNSUCCESSFUL OUTCOME  PhysicalSharedChannelReconfigurationFailureTDD
  MESSAGE DISCRIMINATOR dedicated
  PROCEDURE ID          { procedureCode id-physicalSharedChannelReconfiguration, ddMode tdd }
  CRITICALITY          reject
}

-- *** CompressedModePreparation (FDD only) ***
compressedModePreparation NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE    CompressedModePrepare
  SUCCESSFUL OUTCOME    CompressedModeReady
  UNSUCCESSFUL OUTCOME  CompressedModeFailure
  MESSAGE DISCRIMINATOR dedicated
  PROCEDURE ID          { procedureCode id-compressedModePreparation, ddMode fdd }
  CRITICALITY          reject
}

-- Class 2

-- *** ResourceStatusIndication ***
resourceStatusIndication NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE    ResourceStatusIndication
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID          { procedureCode id-resourceStatusIndication, ddMode common }
  CRITICALITY          ignore
}

-- *** AuditRequired ***
auditRequired NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE    AuditRequiredIndication
  MESSAGE DISCRIMINATOR common
  PROCEDURE ID          { procedureCode id-auditRequired, ddMode common }
  CRITICALITY          ignore
}

-- *** CommonMeasurementReport ***
commonMeasurementReport NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE    CommonMeasurementReport

```

```
MESSAGE DISCRIMINATOR    common
PROCEDURE ID             { procedureCode id-commonMeasurementReport, ddMode common }
CRITICALITY              ignore
}

-- *** CommonMeasurementTermination ***
commonMeasurementTermination NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE     CommonMeasurementTerminationRequest
  MESSAGE DISCRIMINATOR  common
  PROCEDURE ID           { procedureCode id-commonMeasurementTermination, ddMode common }
  CRITICALITY            ignore
}

-- *** CommonMeasurementFailure ***
commonMeasurementFailure NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE     CommonMeasurementFailureIndication
  MESSAGE DISCRIMINATOR  common
  PROCEDURE ID           { procedureCode id-commonMeasurementFailure, ddMode common }
  CRITICALITY            ignore
}

-- *** SynchronisedRadioLinkReconfirurationCommit ***
synchronisedRadioLinkReconfigurationCommit NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE     RadioLinkReconfigurationCommit
  MESSAGE DISCRIMINATOR  dedicated
  PROCEDURE ID           { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
  CRITICALITY            ignore
}

-- *** SynchronisedRadioReconfigurationCancellation ***
synchronisedRadioLinkReconfigurationCancellation NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE     RadioLinkReconfigurationCancel
  MESSAGE DISCRIMINATOR  dedicated
  PROCEDURE ID           { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
  CRITICALITY            ignore
}

-- *** RadioLinkFailure ***
radioLinkFailure NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE     RadioLinkFailureIndication
  MESSAGE DISCRIMINATOR  dedicated
  PROCEDURE ID           { procedureCode id-radioLinkFailure, ddMode common }
  CRITICALITY            ignore
}

-- *** RadioLinkRestoration ***
radioLinkRestoration NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE     RadioLinkRestoreIndication
  MESSAGE DISCRIMINATOR  dedicated
  PROCEDURE ID           { procedureCode id-radioLinkRestoration, ddMode common }
  CRITICALITY            ignore
}

-- *** DedicatedMeasurementReport ***
```

```

dedicatedMeasurementReport NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      DedicatedMeasurementReport
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-dedicatedMeasurementReport, ddMode common }
  CRITICALITY             ignore
}

-- *** DedicatedMeasurementTermination ***
dedicatedMeasurementTermination NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      DedicatedMeasurementTerminationRequest
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-dedicatedMeasurementTermination, ddMode common }
  CRITICALITY             ignore
}

-- *** DedicatedMeasurementFailure ***
dedicatedMeasurementFailure NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      DedicatedMeasurementFailureIndication
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-dedicatedMeasurementFailure, ddMode common }
  CRITICALITY             ignore
}

-- *** DLPowerControl (FDD only) ***
downlinkPowerControlFDD NBAP-ELEMENTARY-PROCEDURE ::= {
--itaba
  INITIATING MESSAGE      DL-PowerControlRequest
  MESSAGE DISCRIMINATOR   dedicated
--itaba
  PROCEDURE ID            { procedureCode id-downlinkPowerControl, ddMode fdd }
  CRITICALITY             ignore
}

-- *** CompressedModeCommit (FDD only) ***
compressedModeCommit NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CompressedModeCommit
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-compressedModeCommit, ddMode fdd }
  CRITICALITY             ignore
}

-- *** CompressedModeCancellation (FDD only) ***
compressedModeCancellation NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      CompressedModeCancel
  MESSAGE DISCRIMINATOR   dedicated
  PROCEDURE ID            { procedureCode id-compressedModeCancellation, ddMode fdd }
  CRITICALITY             ignore
}

-- *** UnblockResourceIndication ***
unblockResource NBAP-ELEMENTARY-PROCEDURE ::= {
  INITIATING MESSAGE      UnblockResourceIndication
  MESSAGE DISCRIMINATOR   common
  PROCEDURE ID            { procedureCode id-unblockResource, ddMode common }
}

```

```

    CRITICALITY          ignore
}

-- *** ErrorIndication ***
errorIndication NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      ErrorIndication
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-errorIndication, ddMode common }
    CRITICALITY             ignore
}

-- *** PrivateMessage ***
privateMessage NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      PrivateMessage
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-privateMessage, ddMode common }
    CRITICALITY             ignore
}

END

```

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-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,
 maxNrOfULTSs,
 maxNrOfUSCHs,
 maxFACHCell,
 maxRACHCell,
 maxPRACHCell,
 maxSCCPCHCell,
 maxSCPICHCell,
 maxCellinNodeB,

```

maxCCPinNodeB,
maxLocalCellInNodeB,
maxSF,
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,
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..maxSF)) 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 {
cCTrCH-ID CCTrCH-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,
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
    pCH          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..maxNrOfPRACHs)) 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..maxSF)) 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..maxNrOfPRACHs)) 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 ::= {
    ...
}

-- *****
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST TDD
--
-- *****

```

```

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

CommonTransportChannelReconfigurationRequestTDD-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-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD    CRITICALITY reject    TYPE    Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD
    PRESENCE optional    }|
    { ID id-PICH-Parameters-CTCH-ReconfRqstTDD    CRITICALITY reject    TYPE    PICH-Parameters-CTCH-ReconfRqstTDD    PRESENCE optional }|
    { ID id-FACH-ParametersList-CTCH-ReconfRqstTDD    CRITICALITY reject    TYPE    FACH-ParametersList-CTCH-ReconfRqstTDD    PRESENCE optional }|
    { ID id-PCH-Parameters-CTCH-ReconfRqstTDD    CRITICALITY reject    TYPE    PCH-Parameters-CTCH-ReconfRqstTDD    PRESENCE optional },
    ...
}

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

Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID          CCTrCH-ID,
    secondaryCCPCHList    Secondary-CCPCHList-CTCH-ReconfRqstTDD    OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer  { { Secondary-CCPCH-CTCH-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

Secondary-CCPCH-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCHList-CTCH-ReconfRqstTDD ::= ProtocolIE-Container { { Secondary-CCPCHListIEs-CTCH-ReconfRqstTDD } }

Secondary-CCPCHListIEs-CTCH-ReconfRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD    CRITICALITY reject    TYPE    Secondary-CCPCHListIE-CTCH-ReconfRqstTDD    PRESENCE mandatory },
    ...
}

Secondary-CCPCHListIE-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCHItem-CTCH-ReconfRqstTDD

Secondary-CCPCHItem-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID    CommonPhysicalChannelID,
    sCCPCH-Power              DL-Power,
    iE-Extensions            ProtocolExtensionContainer  { { Secondary-CCPCHItem-CTCH-ReconfRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

PICH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    pICH-Power                   DL-Power,
    iE-Extensions                ProtocolExtensionContainer { { PICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

PICH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-ParametersList-CTCH-ReconfRqstTDD ::= SEQUENCE (SIZE (0..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-ReconfRqstTDD

FACH-ParametersItem-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    toAWS                         ToAWS                OPTIONAL,
    toAWE                         ToAWE                OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { FACH-ParametersItem-CTCH-ReconfRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

FACH-ParametersItem-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCH-Parameters-CTCH-ReconfRqstTDD ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    toAWS                         ToAWS                OPTIONAL,
    toAWE                         ToAWE                OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { PCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs } }    OPTIONAL,
    ...
}

PCH-Parameters-CTCH-ReconfRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE
--
-- *****

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

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

```

```

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

-- *****
--
-- COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE
--
-- *****

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

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

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

-- *****
--
-- COMMON TRANSPORT CHANNEL DELETION REQUEST
--
-- *****

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

CommonTransportChannelDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID          CRITICALITY reject      TYPE    C-ID          PRESENCE mandatory } |
    { ID    id-CommonPhysicalChannelID CRITICALITY reject      TYPE    CommonPhysicalChannelID PRESENCE mandatory } |
    { ID    id-ConfigurationGenerationID CRITICALITY reject      TYPE    ConfigurationGenerationID PRESENCE mandatory },
    ...
}

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

-- *****
--
-- COMMON TRANSPORT CHANNEL DELETION RESPONSE
--
-- *****

```



```

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

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

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

-- *****
--
-- BLOCK RESOURCE REQUEST
--
-- *****

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

BlockResourceRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                CRITICALITY reject          TYPE    C-ID                                PRESENCE mandatory }|
    { ID    id-BlockingPriorityIndicator          CRITICALITY reject          TYPE    BlockingPriorityIndicator          PRESENCE mandatory }|
    { ID    id-ShutdownTimer                    CRITICALITY reject          TYPE    ShutdownTimer                    PRESENCE conditional },
    -- The IE is present when the Blocking Priority IndicatorIE indicates 'Normal Priority'--
    ...
}

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

-- *****
--
-- BLOCK RESOURCE RESPONSE
--
-- *****

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

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

```

```

}
...
BlockResourceResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
}
...
-- *****
--
-- BLOCK RESOURCE FAILURE
--
-- *****

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

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

BlockResourceFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
}
...
-- *****
--
-- UNBLOCK RESOURCE INDICATION
--
-- *****

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

UnblockResourceIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-C-ID          CRITICALITY   ignore    TYPE    C-ID          PRESENCE    mandatory},
    ...
}

UnblockResourceIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
}
...
-- *****
--
-- AUDIT REQUIRED INDICATION
--

```

```

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

AuditRequiredIndication-IEs NBAP-PROTOCOL-IES ::= {
    ...
}

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

-- *****
--
-- AUDIT REQUEST
--
-- *****

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

AuditRequest-IEs NBAP-PROTOCOL-IES ::= {
    ...
}

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

-- *****
--
-- AUDIT RESPONSE
--
-- *****

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

AuditResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-NodeBInformation-AuditRep CRITICALITY ignore TYPE NodeBInformation-AuditRsp PRESENCE mandatory}|
    { ID      id-Cell-InformationList-AuditRsp          CRITICALITY ignore          TYPE      Cell-InformationList-AuditRsp          PRESENCE optional
    }|
    { ID      id-CCP-InformationList-AuditRsp          CRITICALITY ignore          TYPE      CCP-InformationList-AuditRsp          PRESENCE optional
    }|
}

```

```

-- CCP (Communication Control Port) --
{ ID id-Local-Cell-InformationList-AuditRsp CRITICALITY ignore TYPE Local-Cell-InformationList-AuditRsp PRESENCE
optional }}
{ ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional
},
...
}

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

NodeBInformation-AuditRsp ::= SEQUENCE {
dl-or-global-capacityCredit DL-or-Global-CapacityCredit,
ul-capacityCredit UL-CapacityCredit OPTIONAL,
commonChannelsCapacityConsumptionLaw CommonChannelsCapacityConsumptionLaw,
dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw,
iE-Extensions ProtocolExtensionContainer { { NodeBInformation-AuditRep-ExtIEs} } OPTIONAL,
...
}

NodeBInformation-AuditRep-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

Cell-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Container {{ Cell-InformationItemIE-AuditRsp}}

Cell-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
{ ID id-Cell-InformationItem-AuditRsp CRITICALITY ignore TYPE Cell-InformationItem-AuditRsp PRESENCE optional },
...
}

Cell-InformationItem-AuditRsp ::= SEQUENCE {
c-ID C-ID,
configurationGenerationID ConfigurationGenerationID,
resourceOperationalState ResourceOperationalState,
availabilityStatus AvailabilityStatus,
local-Cell-ID Local-Cell-ID,
maximumDL-PowerCapability MaximumDL-PowerCapability, -- to do: FFS
minSpreadingFactor MinSpreadingFactor, -- to do: FFS
primary-SCH-Information P-SCH-Information-AuditRsp OPTIONAL,
secondary-SCH-Information S-SCH-Information-AuditRsp OPTIONAL,
primary-CPICH-Information P-CPICH-Information-AuditRsp OPTIONAL,
secondary-CPICH-InformationList S-CPICH-InformationList-AuditRsp OPTIONAL,
primary-CCPCH-Information P-CCPCH-Information-AuditRsp OPTIONAL,
bCH-Information BCH-Information-AuditRsp OPTIONAL,
secondary-CCPCH-InformationList S-CCPCH-InformationList-AuditRsp OPTIONAL,
pCH-Information PCH-Information-AuditRsp OPTIONAL,
pICH-Information PICH-Information-AuditRsp OPTIONAL,
fACH-InformationList FACH-InformationList-AuditRsp OPTIONAL,
pRACH-InformationList PRACH-InformationList-AuditRsp OPTIONAL,
rACH-InformationList RACH-InformationList-AuditRsp OPTIONAL,
aICH-InformationList AICH-InformationList-AuditRsp OPTIONAL,
sCH-Information SCH-Information-AuditRsp OPTIONAL,
}

```

```

    iE-Extensions          ProtocolExtensionContainer { { Cell-InformationItem-AuditRsp-ExtIEs } } OPTIONAL,
    ...
}

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

P-SCH-Information-AuditRsp ::= ProtocolIE-Container {{ P-SCH-InformationIE-AuditRsp }}

P-SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-P-SCH-InformationItem-AuditRsp CRITICALITY ignore TYPE P-SCH-InformationItem-AuditRsp PRESENCE mandatory },
    ...
}

P-SCH-InformationItem-AuditRsp ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    resourceOperationalState     ResourceOperationalState,
    availabilityStatus           AvailabilityStatus,
    iE-Extensions                ProtocolExtensionContainer { { P-SCH-InformationItem-AuditRsp-ExtIEs } } OPTIONAL,
    ...
}

P-SCH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

S-SCH-Information-AuditRsp ::= ProtocolIE-Container {{ S-SCH-InformationIE-AuditRsp }}

S-SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-SCH-InformationItem-AuditRsp CRITICALITY ignore TYPE S-SCH-InformationItem-AuditRsp PRESENCE mandatory },
    ...
}

S-SCH-InformationItem-AuditRsp ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    resourceOperationalState     ResourceOperationalState,
    availabilityStatus           AvailabilityStatus,
    iE-Extensions                ProtocolExtensionContainer { { S-SCH-InformationItem-AuditRsp-ExtIEs } } OPTIONAL,
    ...
}

S-SCH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

P-CPICH-Information-AuditRsp ::= ProtocolIE-Container {{ P-CPICH-InformationIE-AuditRsp }}

P-CPICH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-P-CPICH-InformationItem-AuditRsp CRITICALITY ignore TYPE P-CPICH-InformationItem-AuditRsp PRESENCE mandatory },
    ...
}

P-CPICH-InformationItem-AuditRsp ::= SEQUENCE {

```

```

    commonPhysicalChannelID      CommonPhysicalChannelID,
    resourceOperationalState     ResourceOperationalState,
    availabilityStatus           AvailabilityStatus,
    iE-Extensions                ProtocolExtensionContainer { { P-CPICH-InformationItem-AuditRsp-ExtIEs } }    OPTIONAL,
    ...
}

P-CPICH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

S-CPICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Container {{ S-CPICH-InformationItemIE-AuditRsp }}

S-CPICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-CPICH-InformationItem-AuditRsp    CRITICALITY ignore    TYPE S-CPICH-InformationItem-AuditRsp    PRESENCE mandatory },
    ...
}

S-CPICH-InformationItem-AuditRsp ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    resourceOperationalState     ResourceOperationalState,
    availabilityStatus           AvailabilityStatus,
    iE-Extensions                ProtocolExtensionContainer { { S-CPICH-InformationItem-AuditRsp-ExtIEs } }    OPTIONAL,
    ...
}

S-CPICH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

P-CCPCH-Information-AuditRsp ::= ProtocolIE-Container {{ P-CCPCH-InformationIE-AuditRsp }}

P-CCPCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-P-CCPCH-InformationItem-AuditRsp    CRITICALITY ignore    TYPE P-CCPCH-InformationItem-AuditRsp    PRESENCE mandatory },
    ...
}

P-CCPCH-InformationItem-AuditRsp ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    resourceOperationalState     ResourceOperationalState,
    availabilityStatus           AvailabilityStatus,
    iE-Extensions                ProtocolExtensionContainer { { P-CCPCH-InformationItem-AuditRsp-ExtIEs } }    OPTIONAL,
    ...
}

P-CCPCH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

BCH-Information-AuditRsp ::= ProtocolIE-Container {{ BCH-InformationIE-AuditRsp }}

BCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-BCH-InformationItem-AuditRsp    CRITICALITY ignore    TYPE BCH-InformationItem-AuditRsp    PRESENCE mandatory },
    ...
}

```

```

}

BCH-InformationItem-AuditRsp ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    resourceOperationalState      ResourceOperationalState,
    availabilityStatus            AvailabilityStatus,
    iE-Extensions                 ProtocolExtensionContainer  { { BCH-InformationItem-AuditRsp-ExtIEs } }    OPTIONAL,
    ...
}

BCH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

S-CCPCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxSCCPCHCell)) OF ProtocolIE-Container {{ S-CCPCH-InformationItemIE-AuditRsp }}

S-CCPCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-CCPCH-InformationItem-AuditRsp    CRITICALITY ignore    TYPE S-CCPCH-InformationItem-AuditRsp    PRESENCE mandatory },
    ...
}

S-CCPCH-InformationItem-AuditRsp ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    resourceOperationalState      ResourceOperationalState,
    availabilityStatus            AvailabilityStatus,
    iE-Extensions                 ProtocolExtensionContainer  { { S-CCPCH-InformationItem-AuditRsp-ExtIEs } }    OPTIONAL,
    ...
}

S-CCPCH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCH-Information-AuditRsp ::= ProtocolIE-Container {{ PCH-InformationIE-AuditRsp }}

PCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-InformationItem-AuditRsp    CRITICALITY ignore    TYPE PCH-InformationItem-AuditRsp    PRESENCE mandatory },
    ...
}

PCH-InformationItem-AuditRsp ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    resourceOperationalState      ResourceOperationalState,
    availabilityStatus            AvailabilityStatus,
    iE-Extensions                 ProtocolExtensionContainer  { { PCH-InformationItem-AuditRsp-ExtIEs } }    OPTIONAL,
    ...
}

PCH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PICH-Information-AuditRsp ::= ProtocolIE-Container {{ PICH-InformationIE-AuditRsp }}

PICH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-PICH-InformationItem-AuditRsp  CRITICALITY ignore  TYPE PICH-InformationItem-AuditRsp  PRESENCE mandatory },
    ...
}

PICH-InformationItem-AuditRsp ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    resourceOperationalState     ResourceOperationalState,
    availabilityStatus           AvailabilityStatus,
    iE-Extensions                ProtocolExtensionContainer  { { PICH-InformationItem-AuditRsp-ExtIEs } }  OPTIONAL,
    ...
}

PICH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxFACHCell)) OF ProtocolIE-Container {{ FACH-InformationItemIE-AuditRsp }}

FACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-InformationItem-AuditRsp  CRITICALITY ignore  TYPE FACH-InformationItem-AuditRsp  PRESENCE mandatory },
    ...
}

FACH-InformationItem-AuditRsp ::= SEQUENCE {
    commonTransportChannelID     CommonTransportChannelID,
    resourceOperationalState     ResourceOperationalState,
    availabilityStatus           AvailabilityStatus,
    iE-Extensions                ProtocolExtensionContainer  { { FACH-InformationItem-AuditRsp-ExtIEs } }  OPTIONAL,
    ...
}

FACH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Container {{ PRACH-InformationItemIE-AuditRsp }}

PRACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-InformationItem-AuditRsp  CRITICALITY ignore  TYPE PRACH-InformationItem-AuditRsp  PRESENCE mandatory },
    ...
}

PRACH-InformationItem-AuditRsp ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    resourceOperationalState     ResourceOperationalState,
    availabilityStatus           AvailabilityStatus,
    iE-Extensions                ProtocolExtensionContainer  { { PRACH-InformationItem-AuditRsp-ExtIEs } }  OPTIONAL,
    ...
}

PRACH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```



```

RACH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxRACHCell)) OF ProtocolIE-Container {{ RACH-InformationItemIE-AuditRsp }}

RACH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-RACH-InformationItem-AuditRsp  CRITICALITY ignore  TYPE RACH-InformationItem-AuditRsp  PRESENCE mandatory },
  ...
}

RACH-InformationItem-AuditRsp ::= SEQUENCE {
  commonTransportChannelID      CommonTransportChannelID,
  resourceOperationalState      ResourceOperationalState,
  availabilityStatus            AvailabilityStatus,
  iE-Extensions                 ProtocolExtensionContainer  { { RACH-InformationItem-AuditRsp-ExtIEs } }  OPTIONAL,
  ...
}

RACH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

AICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxRACHCell)) OF ProtocolIE-Container {{ AICH-InformationItemIE-AuditRsp }}

AICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-AICH-InformationItem-AuditRsp  CRITICALITY ignore  TYPE AICH-InformationItem-AuditRsp  PRESENCE mandatory },
  ...
}

AICH-InformationItem-AuditRsp ::= SEQUENCE {
  commonPhysicalChannelID      CommonPhysicalChannelID,
  resourceOperationalState      ResourceOperationalState,
  availabilityStatus            AvailabilityStatus,
  iE-Extensions                 ProtocolExtensionContainer  { { AICH-InformationItem-AuditRsp-ExtIEs } }  OPTIONAL,
  ...
}

AICH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

SCH-Information-AuditRsp ::= ProtocolIE-Container {{ SCH-InformationIE-AuditRsp }}

SCH-InformationIE-AuditRsp NBAP-PROTOCOL-IES ::= {
  { ID id-SCH-InformationItem-AuditRsp  CRITICALITY ignore  TYPE SCH-InformationItem-AuditRsp  PRESENCE mandatory },
  ...
}

SCH-InformationItem-AuditRsp ::= SEQUENCE {
  commonTransportChannelID      CommonTransportChannelID,
  resourceOperationalState      ResourceOperationalState,
  availabilityStatus            AvailabilityStatus,
  iE-Extensions                 ProtocolExtensionContainer  { { SCH-InformationItem-AuditRsp-ExtIEs } }  OPTIONAL,
  ...
}

```

```

SCH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CCP-InformationList-AuditRsp ::=SEQUENCE (SIZE (1..maxCCPinNodeB)) OF ProtocolIE-Container {{ CCP-InformationItemIE-AuditRsp }}

CCP-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    {ID id-CCP-InformationItem-AuditRsp          CRITICALITY    ignore          TYPE    CCP-InformationItem-AuditRsp          PRESENCE mandatory},
    ...
}

CCP-InformationItem-AuditRsp ::= SEQUENCE {
    communicationControlPortID      CommunicationControlPortID,
    resourceOperationalState        ResourceOperationalState,
    availabilityStatus              AvailabilityStatus,
    iE-Extensions                   ProtocolExtensionContainer  {{ CCP-InformationItem-AuditRsp-ExtIEs }}    OPTIONAL,
    ...
}

CCP-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Local-Cell-InformationList-AuditRsp ::=SEQUENCE (SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Container {{ Local-Cell-InformationItemIE-AuditRsp }}

Local-Cell-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID      id-Local-Cell-InformationItem-AuditRsp          CRITICALITY    ignore          TYPE    Local-Cell-InformationItem-AuditRsp          PRESENCE
    mandatory},
    ...
}

Local-Cell-InformationItem-AuditRsp ::= SEQUENCE {
    local-Cell-ID                  Local-Cell-ID,
    dl-or-global-capacityCredit    DL-or-Global-CapacityCredit,
    ul-capacityCredit              UL-CapacityCredit    OPTIONAL,
    commonChannelsCapacityConsumptionLaw    CommonChannelsCapacityConsumptionLaw,
    dedicatedChannelsCapacityConsumptionLaw    DedicatedChannelsCapacityConsumptionLaw,
    maximumDL-PowerCapability      MaximumDL-PowerCapability    OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer  {{ Local-Cell-InformationItem-AuditRsp-ExtIEs}}    OPTIONAL,
    ...
}

Local-Cell-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

CommonMeasurementInitiationRequest ::= SEQUENCE {
    protocolIEs                    ProtocolIE-Container    {{CommonMeasurementInitiationRequest-IEs}},

```

```

    protocolExtensions      ProtocolExtensionContainer  {{CommonMeasurementInitiationRequest-Extensions}}  OPTIONAL,
    ...
}

CommonMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
  { ID      id-MeasurementID          CRITICALITY reject          TYPE      MeasurementID          PRESENCE mandatory }|
  { ID      id-CommonMeasurementObjectType-CM-Rqst  CRITICALITY ignore          TYPE      CommonMeasurementObjectType-CM-Rqst  PRESENCE mandatory }|
  { ID      id-CommonMeasurementType          CRITICALITY reject          TYPE      CommonMeasurementType          PRESENCE mandatory }|
  { ID      id-MeasurementFilterCoefficient  CRITICALITY reject          TYPE      MeasurementFilterCoefficient          PRESENCE optional }|
  { ID      id-ReportCharacteristics          CRITICALITY reject          TYPE      ReportCharacteristics          PRESENCE mandatory }
  },
  ...
}

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

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

Cell-CM-Rqst ::= ProtocolIE-Container {{ CellIE-CM-Rqst }}

CellIE-CM-Rqst NBAP-PROTOCOL-IES ::= {
  { ID id-CellItem-CM-Rqst  CRITICALITY reject  TYPE CellItem-CM-Rqst  PRESENCE mandatory },
  ...
}

CellItem-CM-Rqst ::= SEQUENCE {
  c-ID,
  timeSlot          OPTIONAL,
  iE-Extensions    ProtocolExtensionContainer  { { CellItem-CM-Rqst-ExtIEs } }  OPTIONAL,
  ...
}

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

RACH-CM-Rqst ::= ProtocolIE-Container {{ RACHIE-CM-Rqst }}

RACHIE-CM-Rqst NBAP-PROTOCOL-IES ::= {
  { ID id-RACHItem-CM-Rqst  CRITICALITY reject  TYPE RACHItem-CM-Rqst  PRESENCE mandatory },
  ...
}

RACHItem-CM-Rqst ::= SEQUENCE {
  c-ID,

```

```

commonTransportChannelID      CommonTransportChannelID,
iE-Extensions                  ProtocolExtensionContainer  { { RACHItem-CM-Rqst-ExtIEs} }  OPTIONAL,
...
}

RACHItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

-- *****
--
-- COMMON MEASUREMENT INITIATION RESPONSE
--
-- *****

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

CommonMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-MeasurementID          CRITICALITY ignore          TYPE MeasurementID          PRESENCE mandatory }|
  { ID id-CommonMeasurementObjectType-CM-Rsp  CRITICALITY ignore          TYPE CommonMeasurementObjectType-CM-Rsp  PRESENCE mandatory }|
  }|
  { ID id-SFN                      CRITICALITY ignore          TYPE SFN                      PRESENCE optional }|
  { ID id-CriticalityDiagnostics  CRITICALITY ignore          TYPE CriticalityDiagnostics  PRESENCE optional },
  ...
}

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

CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
  cell          Cell-CM-Rsp,
  rACH          RACH-CM-Rsp,
  ...
}

Cell-CM-Rsp ::= ProtocolIE-Container {{ CellIE-CM-Rsp }}

CellIE-CM-Rsp NBAP-PROTOCOL-IES ::= {
  { ID id-CellItem-CM-Rsp  CRITICALITY ignore          TYPE CellItem-CM-Rsp          PRESENCE mandatory },
  ...
}

CellItem-CM-Rsp ::= SEQUENCE {
  commonMeasurementValue      CommonMeasurementValue,
  iE-Extensions                ProtocolExtensionContainer  { { CellItem-CM-Rsp-ExtIEs} }  OPTIONAL,
  ...
}

CellItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
RACH-CM-Rsp ::= ProtocolIE-Container {{ RACHIE-CM-Rsp }}

RACHIE-CM-Rsp NBAP-PROTOCOL-IES ::= {
  { ID id-RACHItem-CM-Rsp  CRITICALITY ignore    TYPE RACHItem-CM-Rsp      PRESENCE mandatory },
  ...
}

RACHItem-CM-Rsp ::= SEQUENCE {
  commonMeasurementValue      CommonMeasurementValue,
  iE-Extensions                ProtocolExtensionContainer { { RACHItem-CM-Rsp-ExtIEs } } OPTIONAL,
  ...
}

RACHItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- COMMON MEASUREMENT INITIATION FAILURE
--
-- *****

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

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

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

-- *****
--
-- COMMON MEASUREMENT REPORT
--
-- *****

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

```

```

CommonMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-MeasurementID          CRITICALITY ignore      TYPE MeasurementID          PRESENCE mandatory } |
  { ID id-CommonMeasurementObjectType-CM-Rprt  CRITICALITY ignore      TYPE CommonMeasurementObjectType-CM-Rprt  PRESENCE mandatory } |
  { ID id-SFN                        CRITICALITY ignore      TYPE SFN                        PRESENCE optional },
  ...
}

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

CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
  cell          Cell-CM-Rprt,
  rACH          RACH-CM-Rprt,
  ...
}

Cell-CM-Rprt ::= ProtocolIE-Container {{ CellIE-CM-Rprt }}

CellIE-CM-Rprt NBAP-PROTOCOL-IES ::= {
  { ID id-CellItem-CM-Rprt  CRITICALITY ignore  TYPE CellItem-CM-Rprt  PRESENCE mandatory },
  ...
}

CellItem-CM-Rprt ::= SEQUENCE {
  commonMeasurementValue      CommonMeasurementValue,
  iE-Extensions               ProtocolExtensionContainer {{ CellItem-CM-Rprt-ExtIEs }}  OPTIONAL,
  ...
}

CellItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RACH-CM-Rprt ::= ProtocolIE-Container {{ RACHIE-CM-Rprt }}

RACHIE-CM-Rprt NBAP-PROTOCOL-IES ::= {
  { ID id-RACHItem-CM-Rprt  CRITICALITY ignore  TYPE RACHItem-CM-Rprt  PRESENCE mandatory },
  ...
}

RACHItem-CM-Rprt ::= SEQUENCE {
  commonMeasurementValue      CommonMeasurementValue,
  iE-Extensions               ProtocolExtensionContainer {{ RACHItem-CM-Rprt-ExtIEs }}  OPTIONAL,
  ...
}

RACHItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

-- *****
--
-- COMMON MEASUREMENT TERMINATION REQUEST
--
-- *****

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

CommonMeasurementTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-MeasurementID          CRITICALITY ignore          TYPE      MeasurementID          PRESENCE mandatory},
    ...
}

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

-- *****
--
-- COMMON MEASUREMENT FAILURE INDICATION
--
-- *****

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

CommonMeasurementFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-MeasurementID          CRITICALITY ignore          TYPE      MeasurementID          PRESENCE mandatory }|
    { ID      id-Cause                  CRITICALITY ignore          TYPE      Cause                PRESENCE mandatory }|
    ...
}

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

-- *****
--
-- 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 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-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 ::= {
...
}

-- *****
--
-- 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-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-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 ::= {
}
...
}
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-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 ::= {
    ...
}

-- *****
--
-- CELL RECONFIGURATION RESPONSE
--
-- *****

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

CellReconfigurationResponse-IEs NBAP-PROTOCOL-IES ::= {

```



```

    { ID      id-CriticalityDiagnostics      CRITICALITY      ignore      TYPE      CriticalityDiagnostics      PRESENCE optional},
    ...
}

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

-- *****
--
-- CELL RECONFIGURATION FAILURE
--
-- *****

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

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

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

-- *****
--
-- CELL DELETION REQUEST
--
-- *****

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

CellDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-C-ID          CRITICALITY      reject      TYPE      C-ID          PRESENCE      mandatory},
    ...
}

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

-- *****
--
-- CELL DELETION RESPONSE

```

```

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

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

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

-- *****
--
-- RESOURCE STATUS INDICATION
--
-- *****

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

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

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

IndicationType-ResourceStatusInd ::= CHOICE {
    no-Failure          No-Failure-ResourceStatusInd,
    serviceImpacting    ServiceImpacting-ResourceStatusInd,
    cellControl         NULL,
    ...
}

No-Failure-ResourceStatusInd ::= ProtocolIE-Container {{ No-FailureIE-ResourceStatusInd }}

No-FailureIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-No-FailureItem-ResourceStatusInd    CRITICALITY ignore    TYPE No-FailureItem-ResourceStatusInd    PRESENCE mandatory },
    ...
}

```

```

No-FailureItem-ResourceStatusInd ::= SEQUENCE {
    nodeB-Information-ResourceStatusInd    NodeB-Information-ResourceStatusInd,
    local-Cell-InformationList             Local-Cell-InformationList-ResourceStatusInd,
    iE-Extensions                          ProtocolExtensionContainer { { No-FailureItem-ResourceStatusInd-ExtIEs } } OPTIONAL,
    ...
}

No-FailureItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NodeB-Information-ResourceStatusInd ::= SEQUENCE {
    dl-or-global-capacityCredit           DL-or-Global-CapacityCredit,
    ul-capacityCredit                     UL-CapacityCredit OPTIONAL,
    commonChannelsCapacityConsumptionLaw  CommonChannelsCapacityConsumptionLaw,
    dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw,
    iE-Extensions                          ProtocolExtensionContainer { { NodeB-Information-ResourceStatusInd-ExtIEs } } OPTIONAL,
    ...
}

NodeB-Information-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Local-Cell-InformationList-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellinNodeB)) OF ProtocolIE-Container {{ Local-Cell-InformationItemIE-ResourceStatusInd }}

Local-Cell-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-InformationItem-ResourceStatusInd    CRITICALITY ignore    TYPE Local-Cell-InformationItem-ResourceStatusInd    PRESENCE mandatory
    },
    ...
}

Local-Cell-InformationItem-ResourceStatusInd ::= SEQUENCE {
    local-CellID                            Local-Cell-ID,
    addorDeleteIndicator                    AddorDeleteIndicator,
    dl-or-global-capacityCredit             DL-or-Global-CapacityCredit    OPTIONAL,
    -- This IE is present only if "AddorDeleteIndicator" equals add
    ul-capacityCredit                       UL-CapacityCredit    OPTIONAL,
    commonChannelsCapacityConsumptionLaw    CommonChannelsCapacityConsumptionLaw    OPTIONAL,
    -- This IE is present only if "AddorDeleteIndicator" equals add
    dedicatedChannelsCapacityConsumptionLaw DedicatedChannelsCapacityConsumptionLaw    OPTIONAL,
    -- This IE is present only if "AddorDeleteIndicator" equals add
    maximumDL-PowerCapability              MaximumDL-PowerCapability,
    iE-Extensions                          ProtocolExtensionContainer { { Local-Cell-InformationItem-ResourceStatusInd-ExtIEs } } OPTIONAL,
    ...
}

Local-Cell-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ServiceImpacting-ResourceStatusInd ::= ProtocolIE-Container {{ ServiceImpactingIE-ResourceStatusInd }}

```

```

ServiceImpactingIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-ServiceImpactingItem-ResourceStatusInd  CRITICALITY ignore TYPE ServiceImpactingItem-ResourceStatusInd  PRESENCE mandatory },
  ...
}

ServiceImpactingItem-ResourceStatusInd ::= SEQUENCE {
  nodeB-Information-Service          NodeB-Information-Service-ResourceStatusInd  OPTIONAL,
  local-Cell-InformationList         Local-Cell-InformationList2-ResourceStatusInd  OPTIONAL,
  cCP-InformationList                CCP-InformationList-ResourceStatusInd  OPTIONAL,
  cell-InformationList               Cell-InformationList-ResourceStatusInd  OPTIONAL,
  primary-SCH-Information             P-SCH-Information-ResourceStatusInd  OPTIONAL,
  secondary-SCH-Information           S-SCH-Information-ResourceStatusInd  OPTIONAL,
  primary-CPICH-Information           P-CPICH-Information-ResourceStatusInd  OPTIONAL,
  secondary-CPICH-Information         S-CPICH-InformationList-ResourceStatusInd  OPTIONAL,
  primary-CCPCH-Information           P-CCPCH-Information-ResourceStatusInd  OPTIONAL,
  bCH-Information                    BCH-Information-ResourceStatusInd  OPTIONAL,
  secondary-CCPCH-InformationList     S-CCPCH-InformationList-ResourceStatusInd  OPTIONAL,
  pCH-Information                    PCH-Information-ResourceStatusInd  OPTIONAL,
  pICH-Information                    PICH-Information-ResourceStatusInd  OPTIONAL,
  fACH-InformationList                FACH-InformationList-ResourceStatusInd  OPTIONAL,
  pRACH-InformationList               PRACH-InformationList-ResourceStatusInd  OPTIONAL,
  rACH-InformationList                RACH-InformationList-ResourceStatusInd  OPTIONAL,
  aICH-InformationList                AICH-InformationList-ResourceStatusInd  OPTIONAL,
  sCH-Information                     SCH-Information-ResourceStatusInd  OPTIONAL,
  iE-Extensions                       ProtocolExtensionContainer { { ServiceImpactingItem-ResourceStatusInd-ExtIEs} }  OPTIONAL,
  ...
}

ServiceImpactingItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

NodeB-Information-Service-ResourceStatusInd ::= SEQUENCE {
  dl-or-global-capacityCredit        DL-or-Global-CapacityCredit  OPTIONAL,
  ul-capacityCredit                   UL-CapacityCredit  OPTIONAL,
  iE-Extensions                       ProtocolExtensionContainer { { NodeB-Information-Service-ResourceStatusInd-ExtIEs} }  OPTIONAL,
  ...
}

NodeB-Information-Service-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Local-Cell-InformationList2-ResourceStatusInd ::= SEQUENCE(SIZE (1..maxLocalCellInNodeB)) OF ProtocolIE-Container {{ Local-Cell-InformationItemIE2-ResourceStatusInd }}

Local-Cell-InformationItemIE2-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-Local-Cell-InformationItem2-ResourceStatusInd  CRITICALITY ignore TYPE Local-Cell-InformationItem2-ResourceStatusInd  PRESENCE mandatory },
  ...
}

Local-Cell-InformationItem2-ResourceStatusInd ::= SEQUENCE {

```

```

local-Cell-ID                Local-Cell-ID,
dl-or-global-capacityCredit  DL-or-Global-CapacityCredit    OPTIONAL,
ul-capacityCredit            UL-CapacityCredit              OPTIONAL,
maximum-DL-PowerCapability   MaximumDL-PowerCapability       OPTIONAL,
iE-Extensions                ProtocolExtensionContainer { { Local-Cell-InformationItem2-ResourceStatusInd-ExtIEs } }    OPTIONAL,
...
}

Local-Cell-InformationItem2-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

CCP-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCCPinNodeB)) OF ProtocolIE-Container {{ CCP-InformationItemIE-ResourceStatusInd }}

CCP-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
{ ID id-CCP-InformationItem-ResourceStatusInd    CRITICALITY ignore    TYPE CCP-InformationItem-ResourceStatusInd    PRESENCE mandatory },
...
}

CCP-InformationItem-ResourceStatusInd ::= SEQUENCE {
communicationControlPortID      CommunicationControlPortID,
resourceOperationalState        ResourceOperationalState,
availabilityStatus               AvailabilityStatus,
iE-Extensions                   ProtocolExtensionContainer { { CCP-InformationItem-ResourceStatusInd-ExtIEs } }    OPTIONAL,
...
}

CCP-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

Cell-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCellinNodeB)) OF ProtocolIE-Container {{ Cell-InformationItemIE-ResourceStatusInd }}

Cell-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
{ ID id-Cell-InformationItem-ResourceStatusInd    CRITICALITY ignore    TYPE Cell-InformationItem-ResourceStatusInd    PRESENCE mandatory },
...
}

Cell-InformationItem-ResourceStatusInd ::= SEQUENCE {
c-ID                             C-ID,
resourceOperationalState         ResourceOperationalState,
availabilityStatus               AvailabilityStatus,           --to do: FFS
maximumDL-PowerCapability        MaximumDL-PowerCapability,  --to do: FFS
minSpreadingFactor              MinSpreadingFactor,
iE-Extensions                   ProtocolExtensionContainer { { Cell-InformationItem-ResourceStatusInd-ExtIEs } }    OPTIONAL,
...
}

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

P-SCH-Information-ResourceStatusInd ::= ProtocolIE-Container {{ P-SCH-InformationIE-ResourceStatusInd }}

```

```

P-SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-P-SCH-InformationItem-ResourceStatusInd  CRITICALITY ignore    TYPE P-SCH-InformationItem-ResourceStatusInd    PRESENCE mandatory },
  ...
}

P-SCH-InformationItem-ResourceStatusInd ::= SEQUENCE {
  commonPhysicalChannelID          CommonPhysicalChannelID,
  resourceOperationalState         ResourceOperationalState,
  availabilityStatus               AvailabilityStatus,
  iE-Extensions                    ProtocolExtensionContainer { { P-SCH-InformationItem-ResourceStatusInd-ExtIEs } }  OPTIONAL,
  ...
}

P-SCH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

S-SCH-Information-ResourceStatusInd ::= ProtocolIE-Container {{ S-SCH-InformationIE-ResourceStatusInd }}

S-SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-S-SCH-InformationItem-ResourceStatusInd  CRITICALITY ignore    TYPE S-SCH-InformationItem-ResourceStatusInd    PRESENCE mandatory },
  ...
}

S-SCH-InformationItem-ResourceStatusInd ::= SEQUENCE {
  commonPhysicalChannelID          CommonPhysicalChannelID,
  resourceOperationalState         ResourceOperationalState,
  availabilityStatus               AvailabilityStatus,
  iE-Extensions                    ProtocolExtensionContainer { { S-SCH-InformationItem-ResourceStatusInd-ExtIEs } }  OPTIONAL,
  ...
}

S-SCH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

P-CPICH-Information-ResourceStatusInd ::= ProtocolIE-Container {{ P-CPICH-InformationIE-ResourceStatusInd }}

P-CPICH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-P-CPICH-InformationItem-ResourceStatusInd  CRITICALITY ignore    TYPE P-CPICH-InformationItem-ResourceStatusInd    PRESENCE mandatory },
  ...
}

P-CPICH-InformationItem-ResourceStatusInd ::= SEQUENCE {
  commonPhysicalChannelID          CommonPhysicalChannelID,
  resourceOperationalState         ResourceOperationalState,
  availabilityStatus               AvailabilityStatus,
  iE-Extensions                    ProtocolExtensionContainer { { P-CPICH-InformationItem-ResourceStatInd-ExtIEs } }  OPTIONAL,
  ...
}

P-CPICH-InformationItem-ResourceStatInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

S-CPICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCPICHCell)) OF ProtocolIE-Container {{ S-CPICH-InformationItemIE-ResourceStatusInd
}}

S-CPICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-S-CPICH-InformationItem-ResourceStatusInd  CRITICALITY ignore  TYPE S-CPICH-InformationItem-ResourceStatusInd  PRESENCE mandatory },
  ...
}

S-CPICH-InformationItem-ResourceStatusInd ::= SEQUENCE {
  commonPhysicalChannelID          CommonPhysicalChannelID,
  resourceOperationalState         ResourceOperationalState,
  availabilityStatus               AvailabilityStatus,
  iE-Extensions                    ProtocolExtensionContainer { { S-CPICH-InformationItem-ResourceStatusInd-ExtIEs} }  OPTIONAL,
  ...
}

S-CPICH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

P-CCPCH-Information-ResourceStatusInd ::= ProtocolIE-Container {{ P-CCPCH-InformationIE-ResourceStatusInd }}

P-CCPCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-P-CCPCH-InformationItem-ResourceStatusInd  CRITICALITY ignore  TYPE P-CCPCH-InformationItem-ResourceStatusInd  PRESENCE mandatory },
  ...
}

P-CCPCH-InformationItem-ResourceStatusInd ::= SEQUENCE {
  commonPhysicalChannelID          CommonPhysicalChannelID,
  resourceOperationalState         ResourceOperationalState,
  availabilityStatus               AvailabilityStatus,
  iE-Extensions                    ProtocolExtensionContainer { { P-CCPCH-InformationItem-ResourceStatusInd-ExtIEs} }  OPTIONAL,
  ...
}

P-CCPCH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

BCH-Information-ResourceStatusInd ::= ProtocolIE-Container {{ BCH-InformationIE-ResourceStatusInd }}

BCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
  { ID id-BCH-InformationItem-ResourceStatusInd  CRITICALITY ignore  TYPE BCH-InformationItem-ResourceStatusInd  PRESENCE mandatory },
  ...
}

BCH-InformationItem-ResourceStatusInd ::= SEQUENCE {
  commonTransportChannelID        CommonTransportChannelID,
  resourceOperationalState         ResourceOperationalState,
  availabilityStatus               AvailabilityStatus,
  iE-Extensions                    ProtocolExtensionContainer { { BCH-InformationItem-ResourceStatusInd-ExtIEs} }  OPTIONAL,
  ...
}

```

```

BCH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

S-CCPCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxSCCPCHCell)) OF ProtocolIE-Container {{ S-CCPCH-InformationItemIE-ResourceStatusInd }}

S-CCPCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-S-CCPCH-InformationItem-ResourceStatusInd    CRITICALITY ignore    TYPE S-CCPCH-InformationItem-ResourceStatusInd    PRESENCE mandatory },
    ...
}

S-CCPCH-InformationItem-ResourceStatusInd ::= SEQUENCE {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    resourceOperationalState         ResourceOperationalState,
    availabilityStatus               AvailabilityStatus,
    iE-Extensions                    ProtocolExtensionContainer { { S-CCPCH-InformationItem-ResourceStatusInd-ExtIEs} }    OPTIONAL,
    ...
}

S-CCPCH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PCH-Information-ResourceStatusInd ::= ProtocolIE-Container {{ PCH-InformationIE-ResourceStatusInd }}

PCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-InformationItem-ResourceStatusInd    CRITICALITY ignore    TYPE PCH-InformationItem-ResourceStatusInd    PRESENCE mandatory },
    ...
}

PCH-InformationItem-ResourceStatusInd ::= SEQUENCE {
    commonTransportChannelID         CommonTransportChannelID,
    resourceOperationalState         ResourceOperationalState,
    availabilityStatus               AvailabilityStatus,
    iE-Extensions                    ProtocolExtensionContainer { { PCH-InformationItem-ResourceStatusInd-ExtIEs} }    OPTIONAL,
    ...
}

PCH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PICH-Information-ResourceStatusInd ::= ProtocolIE-Container {{ PICH-InformationIE-ResourceStatusInd }}

PICH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PICH-InformationItem-ResourceStatusInd    CRITICALITY ignore    TYPE PICH-InformationItem-ResourceStatusInd    PRESENCE mandatory },
    ...
}

PICH-InformationItem-ResourceStatusInd ::= SEQUENCE {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    resourceOperationalState         ResourceOperationalState,

```



```

    availabilityStatus      AvailabilityStatus,
    iE-Extensions           ProtocolExtensionContainer { { PICH-InformationItem-ResourceStatusInd-ExtIEs} }      OPTIONAL,
    ...
}

PICH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxFACHCell)) OF ProtocolIE-Container {{ FACH-InformationItemIE-ResourceStatusInd }}

FACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-InformationItem-ResourceStatusInd    CRITICALITY ignore TYPE FACH-InformationItem-ResourceStatusInd    PRESENCE mandatory },
    ...
}

FACH-InformationItem-ResourceStatusInd ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    resourceOperationalState      ResourceOperationalState,
    availabilityStatus            AvailabilityStatus,
    iE-Extensions                 ProtocolExtensionContainer { { FACH-InformationItem-ResourceStatusInd-ExtIEs} }      OPTIONAL,
    ...
}

FACH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Container {{ PRACH-InformationItemIE-ResourceStatusInd }}

PRACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-InformationItem-ResourceStatusInd    CRITICALITY ignore    TYPE PRACH-InformationItem-ResourceStatusInd    PRESENCE mandatory },
    ...
}

PRACH-InformationItem-ResourceStatusInd ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    resourceOperationalState      ResourceOperationalState,
    availabilityStatus            AvailabilityStatus,
    iE-Extensions                 ProtocolExtensionContainer { { PRACH-InformationItem-ResourceStatusInd-ExtIEs} }      OPTIONAL,
    ...
}

PRACH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RACH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Container {{ RACH-InformationItemIE-ResourceStatusInd }}

RACH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-InformationItem-ResourceStatusInd    CRITICALITY ignore TYPE RACH-InformationItem-ResourceStatusInd    PRESENCE mandatory },
    ...
}

RACH-InformationItem-ResourceStatusInd ::= SEQUENCE {

```

```

    commonTransportChannelID      CommonTransportChannelID,
    resourceOperationalState      ResourceOperationalState,
    availabilityStatus            AvailabilityStatus,
    iE-Extensions                 ProtocolExtensionContainer { { RACH-InformationItem-ResourceStatusInd-ExtIEs } } OPTIONAL,
    ...
}

RACH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPRACHCell)) OF ProtocolIE-Container {{ AICH-InformationItemIE-ResourceStatusInd }}

AICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-AICH-InformationItem-ResourceStatusInd    CRITICALITY ignore TYPE AICH-InformationItem-ResourceStatusInd    PRESENCE mandatory },
    ...
}

AICH-InformationItem-ResourceStatusInd ::= SEQUENCE {
    commonPhysicalChannelID      CommonPhysicalChannelID,
    resourceOperationalState      ResourceOperationalState,
    availabilityStatus            AvailabilityStatus,
    iE-Extensions                 ProtocolExtensionContainer { { AICH-InformationItem-ResourceStatusInd-ExtIEs } } OPTIONAL,
    ...
}

AICH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SCH-Information-ResourceStatusInd ::= ProtocolIE-Container {{ SCH-InformationIE-ResourceStatusInd }}

SCH-InformationIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-SCH-InformationItem-ResourceStatusInd    CRITICALITY ignore TYPE SCH-InformationItem-ResourceStatusInd    PRESENCE mandatory },
    ...
}

SCH-InformationItem-ResourceStatusInd ::= SEQUENCE {
    commonTransportChannelID      CommonTransportChannelID,
    resourceOperationalState      ResourceOperationalState,
    availabilityStatus            AvailabilityStatus,
    iE-Extensions                 ProtocolExtensionContainer { { SCH-InformationItem-ResourceStatusInd-ExtIEs } } OPTIONAL,
    ...
}

SCH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- 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                CRITICALITY reject      TYPE      C-ID                PRESENCE mandatory
    }|
    { ID      id-BCCH-ModificationTime CRITICALITY reject      TYPE      BCCH-ModificationTime PRESENCE optional }|
    { ID      id-MIB-SIB-InformationList-SystemInfoUpdateRqst CRITICALITY reject      TYPE      MIB-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,
    ...
}

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

No-DeletionIE-SystemInfoUpdate NBAP-PROTOCOL-IES ::= {
    { ID id-No-DeletionItem-SystemInfoUpdate CRITICALITY ignore TYPE No-DeletionItem-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,
    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    CRITICALITY ignore    TYPE SegmentInformationListIE-SystemInfoUpdate    PRESENCE mandatory },
    ...
}
SegmentInformationListIE-SystemInfoUpdate ::= SEQUENCE (SIZE (1..maxIBSEG)) OF SegmentInformationItem-SystemInfoUpdate
SegmentInformationItem-SystemInfoUpdate ::= SEQUENCE {
    iB-SG-POS                IB-SG-POS,
    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 ::= {
    ...
}
-- *****
--
-- SYSTEM INFORMATION UPDATE RESPONSE
--
-- *****

SystemInformationUpdateResponse ::= SEQUENCE {
    protocolIEs                ProtocolIE-Container    {{SystemInformationUpdateResponse-IEs}},
    protocolExtensions        ProtocolExtensionContainer {{SystemInformationUpdateResponse-Extensions}}    OPTIONAL,
    ...
}
SystemInformationUpdateResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CriticalityDiagnostics    CRITICALITY    ignore    TYPE    CriticalityDiagnostics    PRESENCE optional},
    ...
}
SystemInformationUpdateResponse-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
-- *****
--
-- SYSTEM INFORMATION UPDATE FAILURE
--
-- *****

```

```

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

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

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

-- *****
--
-- 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,
iE-Extensions        ProtocolExtensionContainer { { DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
...
}

DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

PowerOffsetInformation-RL-SetupRqstFDD ::= SEQUENCE {
pO1-ForTFCI-Bits    PowerOffset,
pO2-ForTPC-Bits     PowerOffset,
pO3-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-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-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
  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
    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
    iE-Extensions
    ...
}
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 ::= {
    ...
}

```

```

-- *****
--
-- RADIO LINK SETUP RESPONSE FDD
--
-- *****

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

RadioLinkSetupResponseFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-CRNC-CommunicationContextID          CRITICALITY ignore          TYPE CRNC-CommunicationContextID          PRESENCE
      mandatory }|
    { ID      id-NodeB-CommunicationContextID        CRITICALITY ignore          TYPE NodeB-CommunicationContextID        PRESENCE
      mandatory }|
    { ID      id-CommunicationControlPortID          CRITICALITY ignore          TYPE CommunicationControlPortID          PRESENCE
      mandatory }|
    { ID      id-RL-InformationResponseList-RL-SetupRspFDD CRITICALITY ignore          TYPE RL-InformationResponseList-RL-SetupRspFDD PRESENCE
      mandatory }|
    { ID      id-CriticalityDiagnostics              CRITICALITY ignore          TYPE CriticalityDiagnostics              PRESENCE
      optional },
    ...
}

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

RL-InformationResponseList-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container{{ RL-InformationResponseItemIE-RL-SetupRspFDD }}

RL-InformationResponseItemIE-RL-SetupRspFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-RL-InformationResponseItem-RL-SetupRspFDD          CRITICALITY ignore          TYPE RL-InformationResponseItem-RL-SetupRspFDD
      PRESENCE mandatory},
    ...
}

RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID          RL-ID,
    rL-Set-ID      RL-Set-ID,
    ul-InterferenceLevel          UL-InterferenceLevel,
    diversityIndication-RL-SetupRspFDD          DiversityIndication-RL-SetupRspFDD  OPTIONAL,
    -- This IE is present only if the RL is not the first one in the RL Information
    dSCH-InformationResponseList          DSCH-InformationResponseList-RL-SetupRspFDD  OPTIONAL,
    sSDT-SupportIndicator          SSDT-SupportIndicator,
    iE-Extensions          ProtocolExtensionContainer { { RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} }  OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

DiversityIndication-RL-SetupRspFDD ::= CHOICE {
    combining
    nonCombiningOrIENotPrsent
    ...
}

Combining-RL-SetupRspFDD ::= ProtocolIE-Container {{ CombiningIE-RL-SetupRspFDD }}

CombiningIE-RL-SetupRspFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-SetupRspFDD    CRITICALITY ignore    TYPE CombiningItem-RL-SetupRspFDD    PRESENCE mandatory },
    ...
}

CombiningItem-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID
    iE-Extensions
    ...
    RL-ID,
    ProtocolExtensionContainer { { Combining-RL-SetupRspFDD-ExtIEs } }    OPTIONAL,
}

Combining-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombiningOrIENotPrsent-RL-SetupRspFDD ::= ProtocolIE-Container {{ NonCombiningOrIENotPrsentIE-RL-SetupRspFDD }}

NonCombiningOrIENotPrsentIE-RL-SetupRspFDD NBAP-PROTOCOL-IES ::= {
    { ID id-NonCombiningOrIENotPrsentItem-RL-SetupRspFDD    CRITICALITY ignore    TYPE NonCombiningOrIENotPrsentItem-RL-SetupRspFDD    PRESENCE mandatory },
    ...
}

NonCombiningOrIENotPrsentItem-RL-SetupRspFDD ::= SEQUENCE {
    dCH-InformationResponseList
    iE-Extensions
    ...
    DCH-InformationResponseList-RL-SetupRspFDD    OPTIONAL ,
    ProtocolExtensionContainer { { NonCombiningOrIENotPrsentItem-RL-SetupRspFDD-ExtIEs } }    OPTIONAL,
}

NonCombiningOrIENotPrsentItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-SetupRspFDD

DCH-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
    dCH-ID
    bindingID
    transportLayerAddress
    iE-Extensions
    ...
    DCH-ID,
    BindingID,
    TransportLayerAddress,
    ProtocolExtensionContainer { { DCH-InformationResponseItem-RL-SetupRspFDD-ExtIEs } }    OPTIONAL,
}

DCH-InformationResponseItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

DSCH-InformationResponseList-RL-SetupRspFDD ::= ProtocolIE-Container {{ DSCH-InformationResponseListIEs-RL-SetupRspFDD }}

DSCH-InformationResponseListIEs-RL-SetupRspFDD NBAP-PROTOCOL-IES ::= {
  { ID id-DSCH-InformationResponseListIE-RL-SetupRspFDD   CRITICALITY ignore   TYPE DSCH-InformationResponseListIE-RL-SetupRspFDD   PRESENCE
  mandatory },
  ...
}

DSCH-InformationResponseListIE-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem-RL-SetupRspFDD

DSCH-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
  dSCH-ID                DSCH-ID,
  bindingID              BindingID,
  transportLayerAddress  TransportLayerAddress,
  iE-Extensions          ProtocolExtensionContainer { { DSCH-InformationResponseItem-RL-SetupRspFDD-ExtIEs } }   OPTIONAL,
  ...
}

DSCH-InformationResponseItem-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- RADIO LINK SETUP RESPONSE TDD
--
-- *****

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

RadioLinkSetupResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID          CRITICALITY ignore          TYPE CRNC-CommunicationContextID
  PRESENCE mandatory }|
  { ID id-NodeB-CommunicationContextID          CRITICALITY ignore          TYPE NodeB-CommunicationContextID          PRESENCE
  mandatory }|
  { ID id-CommunicationControlPortID          CRITICALITY ignore          TYPE CommunicationControlPortID
  PRESENCE mandatory }|
  { ID id-RL-InformationResponse-RL-SetupRspTDD CRITICALITY ignore          TYPE RL-InformationResponse-RL-SetupRspTDD
  PRESENCE mandatory }|
  { ID id-CriticalityDiagnostics              CRITICALITY ignore          TYPE CriticalityDiagnostics              PRESENCE
  optional },
  ...
}

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

```

```

RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    uL-InterferenceList-RL-SetupRspTDD UL-InterferenceList-RL-SetupRspTDD,
    dCH-InformationResponseList         DCH-InformationResponseList-RL-SetupRspTDD,
    dSCH-InformationResponseList        DSCH-InformationResponseList-RL-SetupRspTDD OPTIONAL,
    uSCH-InformationResponseList        USCH-InformationResponseList-RL-SetupRspTDD OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { RL-InformationResponseList-RL-SetupRspTDD-ExtIEs } } OPTIONAL,
    ...
}

RL-InformationResponseList-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-InterferenceList-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-InterferenceItem-RL-SetupRspTDD

UL-InterferenceItem-RL-SetupRspTDD ::= SEQUENCE {
    timeSlot                            TimeSlot,
    ul-InterferenceLevel                UL-InterferenceLevel,
    iE-Extensions                       ProtocolExtensionContainer { { UL-InterferenceItem-RL-SetupRspTDD-ExtIEs } } OPTIONAL,
    ...
}

UL-InterferenceItem-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Container{{ DCH-InformationResponseListIEs-RL-SetupRspTDD }}

DCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponseListIE-RL-SetupRspTDD CRITICALITY ignore TYPE DCH-InformationResponseListIE-RL-SetupRspTDD PRESENCE
    mandatory },
    ...
}

DCH-InformationResponseListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-SetupRspTDD

DCH-InformationResponseItem-RL-SetupRspTDD ::= SEQUENCE {
    dCH-ID                               DCH-ID,
    bindingID                            BindingID,
    transportLayerAddress                TransportLayerAddress,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-InformationResponseItem-RL-SetupRspTDD-ExtIEs } } OPTIONAL,
    ...
}

DCH-InformationResponseItem-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Container {{ DSCH-InformationResponseListIEs-RL-SetupRspTDD }}

DSCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationResponseListIE-RL-SetupRspTDD CRITICALITY ignore TYPE DSCH-InformationResponseListIE-RL-SetupRspTDD PRESENCE
    mandatory },

```

```

}
...
DSCH-InformationResponseListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem-RL-SetupRspTDD

DSCH-InformationResponseItem-RL-SetupRspTDD ::= SEQUENCE {
    dSCH-ID                DSCH-ID,
    bindingID              BindingID,
    transportLayerAddress  TransportLayerAddress,
    iE-Extensions         ProtocolExtensionContainer { { DSCH-InformationResponseItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-InformationResponseItem-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Container {{ USCH-InformationResponseListIEs-RL-SetupRspTDD }}

USCH-InformationResponseListIEs-RL-SetupRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponseListIE-RL-SetupRspTDD CRITICALITY ignore TYPE USCH-InformationResponseListIE-RL-SetupRspTDD PRESENCE
mandatory },
    ...
}

USCH-InformationResponseListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationResponseItem-RL-SetupRspTDD

USCH-InformationResponseItem-RL-SetupRspTDD ::= SEQUENCE {
    uSCH-ID                USCH-ID,
    bindingID              BindingID,
    transportLayerAddress  TransportLayerAddress,
    iE-Extensions         ProtocolExtensionContainer { { USCH-InformationResponseItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    ...
}

USCH-InformationResponseItem-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK SETUP FAILURE FDD
--
-- *****

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

RadioLinkSetupFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID CRITICALITY ignore TYPE CRNC-CommunicationContextID
PRESENCE mandatory }|

```


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{ ID      id-NodeB-CommunicationContextID
  PRESENCE optional }|
{ ID      id-CommunicationControlPortID
  PRESENCE mandatory }|
{ ID      id-Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD
SetupFailureFDD PRESENCE mandatory }|
{ ID      id-Successful-RL-InformationRespList-RL-SetupFailureFDD
SetupFailureFDD PRESENCE optional }|
{ ID      id-CriticalityDiagnostics
  PRESENCE optional },
...
}

```

```

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

```

```

Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}

```

```

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
{ ID      id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD      CRITICALITY      ignore      TYPE      Unsuccessful-RL-InformationRespItem-RL-
SetupFailureFDD      PRESENCE      mandatory},
...
}

```

```

Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
  rL-ID          RL-ID,
  cause          Cause,
  iE-Extensions ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs } }
  OPTIONAL,
  ...
}

```

```

Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

```

```

Successful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1.. maxNrOfRLs)) OF ProtocolIE-Container {{ Successful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}

```

```

Successful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
{ ID      id-Successful-RL-InformationRespItem-RL-SetupFailureFDD      CRITICALITY      ignore      TYPE      Successful-RL-InformationRespItem-RL-
SetupFailureFDD      PRESENCE      mandatory},
...
}

```

```

Successful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
  rL-ID          RL-ID,
  rL-Set-ID      RL-Set-ID,
  ul-InterferenceLevel UL-InterferenceLevel,
  diversityIndication DiversityIndication-RL-SetupFailureFDD      OPTIONAL,
  -- This IE is present if at least one of the RL is not the first one in the RL information
  dSCH-InformationResponseList DSCH-InformationRespList-RL-SetupFailureFDD      OPTIONAL,
}

```

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CRITICALITY	ignore	TYPE	NodeB-CommunicationContextID
CRITICALITY	ignore	TYPE	CommunicationControlPortID
CRITICALITY	ignore	TYPE	Unsuccessful-RL-InformationRespList-RL-
CRITICALITY	ignore	TYPE	Successful-RL-InformationRespList-RL-
CRITICALITY	ignore	TYPE	CriticalityDiagnostics

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```

sSDT-SupportIndicator          SSDT-SupportIndicator,
iE-Extensions                  ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs } }
OPTIONAL,
...
}

Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
    combining                    Combining-RL-SetupFailureFDD,
    nonCombiningOrIENotPrsent   NonCombiningOrIENotPrsent-RL-SetupFailureFDD,
    ...
}

Combining-RL-SetupFailureFDD ::= ProtocolIE-Container {{ CombiningIE-RL-SetupFailureFDD }}

CombiningIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-SetupFailureFDD   CRITICALITY ignore   TYPE CombiningItem-RL-SetupFailureFDD   PRESENCE mandatory },
    ...
}

CombiningItem-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                        RL-ID,
    iE-Extensions                ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs } }   OPTIONAL,
    ...
}

CombiningItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

NonCombiningOrIENotPrsent-RL-SetupFailureFDD ::= ProtocolIE-Container {{ NonCombiningOrIENotPrsentIE-RL-SetupFailureFDD }}

NonCombiningOrIENotPrsentIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD   CRITICALITY ignore   TYPE NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD   PRESENCE
mandatory },
    ...
}

NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-InformationResponseList   DCH-InformationRespList-RL-SetupFailureFDD   OPTIONAL,
    iE-Extensions                ProtocolExtensionContainer { { NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD-ExtIEs } }
OPTIONAL,
    ...
}

NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

DCH-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1.. maxNrOfDCHs)) OF DCH-InformationRespItem-RL-SetupFailureFDD

```

```

DCH-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-ID                DCH-ID,
    bindingID              BindingID,
    transportLayerAddress  TransportLayerAddress,
    iE-Extensions          ProtocolExtensionContainer { { DCH-InformationRespItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationRespList-RL-SetupFailureFDD ::= ProtocolIE-Container {{ DSCH-InformationRespListIEs-RL-SetupFailureFDD }}

DSCH-InformationRespListIEs-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationRespListIE-RL-SetupFailureFDD CRITICALITY ignore TYPE DSCH-InformationRespListIE-RL-SetupFailureFDD PRESENCE
    mandatory },
    ...
}

DSCH-InformationRespListIE-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationRespItem-RL-SetupFailureFDD

DSCH-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
    dSCH-ID                DSCH-ID,
    bindingID              BindingID,
    transportLayerAddress  TransportLayerAddress,
    iE-Extensions          ProtocolExtensionContainer { { DSCH-InformationRespItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK SETUP FAILURE TDD
--
-- *****

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

RadioLinkSetupFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID CRITICALITY ignore TYPE CRNC-CommunicationContextID
    PRESENCE mandatory }|
    { ID id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD CRITICALITY ignore TYPE Unsuccessful-RL-InformationResp-RL-
    SetupFailureTDD PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics
    PRESENCE optional },
    ...
}

```

```

}

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

Unsuccessful-RL-InformationResp-RL-SetupFailureTDD ::= SEQUENCE {
    rL-ID                RL-ID,
    cause                Cause,
    iE-Extensions        ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs } }
    OPTIONAL,
    ...
}

Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK ADDITION REQUEST FDD
--
-- *****

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

RadioLinkAdditionRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-NodeB-CommunicationContextID          CRITICALITY reject          TYPE      NodeB-CommunicationContextID          PRESENCE
      mandatory } |
    { ID      id-RL-InformationList-RL-AdditionRqstFDD  CRITICALITY notify          TYPE      RL-InformationList-RL-AdditionRqstFDD          PRESENCE
      mandatory },
    ...
}

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

RL-InformationList-RL-AdditionRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-InformationItemIE-RL-AdditionRqstFDD}}

RL-InformationItemIE-RL-AdditionRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID      id-RL-InformationItem-RL-AdditionRqstFDD  CRITICALITY notify          TYPE      RL-InformationItem-RL-AdditionRqstFDD
      PRESENCE mandatory },
    ...
}

RL-InformationItem-RL-AdditionRqstFDD ::= SEQUENCE {
    rL-ID                RL-ID,
    c-ID                 C-ID,
    frameOffset          FrameOffset,

```

```

chipOffset                ChipOffset,
diversityControlField     DiversityControlField,
dl-CodeInformationList    DL-CodeInformationList-RL-AdditionRqstFDD,
initialDL-TransmissionPower  DL-Power                OPTIONAL,
maximumDL-Power           DL-Power                OPTIONAL,
minimumDL-Power           DL-Power                OPTIONAL,
sSDT-CellIdentity         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-AdditionRqstFDD-ExtIEs } }  OPTIONAL,
...
}

RL-InformationItem-RL-AdditionRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

DL-CodeInformationList-RL-AdditionRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDLCodes)) OF DL-CodeInformationItem-RL-AdditionRqstFDD

DL-CodeInformationItem-RL-AdditionRqstFDD ::= SEQUENCE {
dl-scramblingCode         DL-ScramblingCode,
fdd-DL-ChannelisationCodeNumber  FDD-DL-ChannelisationCodeNumber,
iE-Extensions             ProtocolExtensionContainer { { DL-CodeInformationItem-RL-AdditionRqstFDD-ExtIEs } }  OPTIONAL,
...
}

DL-CodeInformationItem-RL-AdditionRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

-- *****
--
-- RADIO LINK ADDITION REQUEST TDD
--
-- *****

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

RadioLinkAdditionRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
{ ID    id-NodeB-CommunicationContextID          CRITICALITY    reject        TYPE    NodeB-CommunicationContextID
PRESENCE    mandatory    }|
{ ID    id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD  CRITICALITY    reject        TYPE    UL-CCTrCH-InformationList-RL-AdditionRqstTDD
PRESENCE    optional    }|
{ ID    id-UL-DPCH-InformationList-RL-AdditionRqstTDD    CRITICALITY    notify       TYPE    UL-DPCH-InformationList-RL-AdditionRqstTDD
PRESENCE    optional    }|
{ ID    id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD  CRITICALITY    reject        TYPE    DL-CCTrCH-InformationList-RL-AdditionRqstTDD
PRESENCE    optional    }|
{ ID    id-DL-DPCH-InformationList-RL-AdditionRqstTDD    CRITICALITY    notify       TYPE    DL-DPCH-InformationList-RL-AdditionRqstTDD
PRESENCE    optional    }|

```

```

{ ID id-RL-Information-RL-AdditionRqstTDD
  PRESENCE mandatory },
...
}

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

UL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-AdditionRqstTDD

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
  cCTrCH-ID          CCTrCH-ID,
  iE-Extensions     ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs } } OPTIONAL,
  ...
}

UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

UL-DPCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF ProtocolIE-Container {{ UL-DPCH-InformationItemIE-RL-AdditionRqstTDD }}

UL-DPCH-InformationItemIE-RL-AdditionRqstTDD NBAP-PROTOCOL-IES ::= {
  { ID id-UL-DPCH-InformationItem-RL-AdditionRqstTDD
    PRESENCE mandatory },
    CRITICALITY notify
    TYPE UL-DPCH-InformationItem-RL-AdditionRqstTDD
  ...
}

UL-DPCH-InformationItem-RL-AdditionRqstTDD ::= 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-AdditionRqstTDD-ExtIEs } } OPTIONAL,
  ...
}

UL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

DL-CCTrCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-AdditionRqstTDD

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
  cCTrCH-ID          CCTrCH-ID,
  iE-Extensions     ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs } } OPTIONAL,
  ...
}

```

```

}

DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF ProtocolIE-Container {{ DL-DPCH-InformationItemIE-RL-
AdditionRqstTDD }}

DL-DPCH-InformationItemIE-RL-AdditionRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID      id-DL-DPCH-InformationItem-RL-AdditionRqstTDD          CRITICALITY      notify          TYPE      DL-DPCH-InformationItem-RL-AdditionRqstTDD
      PRESENCE      mandatory},
    ...
}

DL-DPCH-InformationItem-RL-AdditionRqstTDD ::= 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-AdditionRqstTDD-ExtIEs } }      OPTIONAL,
    ...
}

DL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-Information-RL-AdditionRqstTDD ::= SEQUENCE {
    rL-ID                  RL-ID,
    c-ID                   C-ID,
    frameOffset            FrameOffset,
    diversityControlField  DiversityControlField,
    initial-DL-Transmission-Power DL-Power      OPTIONAL,
    maximumDL-Power        DL-Power      OPTIONAL,
    minimumDL-Power        DL-Power      OPTIONAL,
    iE-Extensions          ProtocolExtensionContainer { { RL-information-RL-AdditionRqstTDD-ExtIEs } }      OPTIONAL,
    ...
}

RL-information-RL-AdditionRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK ADDITION RESPONSE FDD
--
-- *****

```

```

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

RadioLinkAdditionResponseFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          CRITICALITY ignore          TYPE CRNC-CommunicationContextID
    PRESENCE mandatory } |
    { ID id-RL-InformationResponseList-RL-AdditionRspFDD          CRITICALITY ignore          TYPE RL-InformationResponseList-RL-AdditionRspFDD
    PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics          CRITICALITY ignore          TYPE CriticalityDiagnostics
    PRESENCE optional },
    ...
}

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

RL-InformationResponseList-RL-AdditionRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-InformationResponseItemIE-RL-AdditionRspFDD }}

RL-InformationResponseItemIE-RL-AdditionRspFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-AdditionRspFDD          CRITICALITY ignore          TYPE RL-InformationResponseItem-RL-AdditionRspFDD
    PRESENCE mandatory },
    ...
}

RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID          RL-ID,
    rL-Set-ID      RL-Set-ID,
    ul-InterferenceLevel          UL-InterferenceLevel,
    diversityIndication          DiversityIndication-RL-AdditionRspFDD,
    sSDT-SupportIndicator          SSDT-SupportIndicator,
    iE-Extensions          ProtocolExtensionContainer { { RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs } }    OPTIONAL,
    ...
}

RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
    combining          Combining-RL-AdditionRspFDD,
    non-combining          Non-Combining-RL-AdditionRspFDD,
    ...
}

Combining-RL-AdditionRspFDD ::= ProtocolIE-Container {{ CombiningIE-RL-AdditionRspFDD }}

CombiningIE-RL-AdditionRspFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-AdditionRspFDD          CRITICALITY ignore          TYPE CombiningItem-RL-AdditionRspFDD          PRESENCE mandatory },

```



```

}
...
}
CombiningItem-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                RL-ID,
    iE-Extensions        ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} }    OPTIONAL,
    ...
}
CombiningItem-RL-AdditionRspFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
Non-Combining-RL-AdditionRspFDD ::= ProtocolIE-Container {{ Non-CombiningIE-RL-AdditionRspFDD }}
Non-CombiningIE-RL-AdditionRspFDD NBAP-PROTOCOL-IES ::= {
    { ID id-Non-CombiningItem-RL-AdditionRspFDD  CRITICALITY ignore    TYPE Non-CombiningItem-RL-AdditionRspFDD  PRESENCE mandatory },
    ...
}
Non-CombiningItem-RL-AdditionRspFDD ::= SEQUENCE {
    dCH-InformationResponseList  DCH-InformationResponseList-RL-AdditionRspFDD,
    iE-Extensions                ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspFDD-ExtIEs} }    OPTIONAL,
    ...
}
Non-CombiningItem-RL-AdditionRspFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
DCH-InformationResponseList-RL-AdditionRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF DCH-InformationResponseItem-RL-AdditionRspFDD
DCH-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
    dCH-ID                DCH-ID,
    bindingID             BindingID,
    transportLayerAddress TransportLayerAddress,
    iE-Extensions        ProtocolExtensionContainer { { DCH-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} }    OPTIONAL,
    ...
}
DCH-InformationResponseItem-RL-AdditionRspFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
-- *****
--
-- RADIO LINK ADDITION RESPONSE TDD
--
-- *****

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

```

```

}

RadioLinkAdditionResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID          CRITICALITY ignore          TYPE CRNC-CommunicationContextID          PRESENCE
    mandatory }|
  { ID id-RL-InformationResponse-RL-AdditionRspTDD  CRITICALITY ignore          TYPE RL-InformationResponse-RL-AdditionRspTDD  PRESENCE
    mandatory }|
  { ID id-CriticalityDiagnostics                CRITICALITY ignore          TYPE CriticalityDiagnostics                PRESENCE
    optional },
  ...
}

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

RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
  rL-ID                    RL-ID,
  uL-InterferenceList-RL-AdditionRspTDD  UL-InterferenceList-RL-AdditionRspTDD,
  diversityIndication      DiversityIndication-RL-AdditionRspTDD,
  dSCH-InfomationResponseList  DSCH-InformationResponseList-RL-AdditionRspTDD  OPTIONAL,
  uSCH-InfomationResponseList  USCH-InformationResponseList-RL-AdditionRspTDD  OPTIONAL,
  iE-Extensions            ProtocolExtensionContainer { { RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} }  OPTIONAL,
  ...
}

RL-InformationResponse-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

UL-InterferenceList-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1.. maxNrOfULTSs)) OF UL-InterferenceItem-RL-AdditionRspTDD

UL-InterferenceItem-RL-AdditionRspTDD ::= SEQUENCE {
  timeSlot                TimeSlot,
  ul-InterferenceLevel    UL-InterferenceLevel,
  iE-Extensions          ProtocolExtensionContainer { { UL-InterferenceItem-RL-AdditionRspTDD-ExtIEs} }  OPTIONAL,
  ...
}

UL-InterferenceItem-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
  combining                Combining-RL-AdditionRspTDD,
  non-Combining            Non-Combining-RL-AdditionRspTDD,
  ...
}

Combining-RL-AdditionRspTDD ::= ProtocolIE-Container {{ CombiningIE-RL-AdditionRspTDD }}

CombiningIE-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
  { ID id-CombiningItem-RL-AdditionRspTDD  CRITICALITY ignore  TYPE CombiningItem-RL-AdditionRspTDD  PRESENCE mandatory },
  ...
}

```

```

}

CombiningItem-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    iE-Extensions                       ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

CombiningItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Non-Combining-RL-AdditionRspTDD ::= ProtocolIE-Container { { Non-CombiningIE-RL-AdditionRspTDD } }

Non-CombiningIE-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Non-CombiningItem-RL-AdditionRspTDD    CRITICALITY ignore    TYPE Non-CombiningItem-RL-AdditionRspTDD    PRESENCE mandatory },
    ...
}

Non-CombiningItem-RL-AdditionRspTDD ::= SEQUENCE {
    dCH-InfomationResponseList          DCH-InformationResponseList-RL-AdditionRspTDD    OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

Non-CombiningItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-AdditionRspTDD

DCH-InformationResponseItem-RL-AdditionRspTDD ::= SEQUENCE {
    dCH-ID                               DCH-ID,
    bindingID                            BindingID,
    transportLayerAddress                TransportLayerAddress,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

DCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Container { { DSCH-InformationResponseListIEs-RL-AdditionRspTDD } }

DSCH-InformationResponseListIEs-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationResponseListIE-RL-AdditionRspTDD    CRITICALITY ignore    TYPE DSCH-InformationResponseListIE-RL-AdditionRspTDD    PRESENCE
    mandatory },
    ...
}

DSCH-InformationResponseListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem-RL-AdditionRspTDD

DSCH-InformationResponseItem-RL-AdditionRspTDD ::= SEQUENCE {

```

```

    dSCH-ID          DSCH-ID,
    bindingID        BindingID,
    transportLayerAddress TransportLayerAddress,
    iE-Extensions    ProtocolExtensionContainer { { DSCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs} }      OPTIONAL,
    ...
}

DSCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

USCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Container {{ USCH-InformationResponseListIEs-RL-AdditionRspTDD }}

USCH-InformationResponseListIEs-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponseListIE-RL-AdditionRspTDD  CRITICALITY ignore  TYPE USCH-InformationResponseListIE-RL-AdditionRspTDD  PRESENCE
    mandatory },
    ...
}

USCH-InformationResponseListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationResponseItem-RL-AdditionRspTDD

USCH-InformationResponseItem-RL-AdditionRspTDD ::= SEQUENCE {
    uSCH-ID          USCH-ID,
    bindingID        BindingID,
    transportLayerAddress TransportLayerAddress,
    iE-Extensions    ProtocolExtensionContainer { { USCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs} }      OPTIONAL,
    ...
}

USCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK ADDITION FAILURE FDD
--
-- *****

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

RadioLinkAdditionFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          CRITICALITY ignore  TYPE CRNC-CommunicationContextID
      PRESENCE mandatory  }|
    { ID id-Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD  CRITICALITY ignore  TYPE Unsuccessful-RL-InformationRespList-RL-
    AdditionFailureFDD  PRESENCE mandatory  }|
    { ID id-Successful-RL-InformationRespList-RL-AdditionFailureFDD  CRITICALITY ignore  TYPE Successful-RL-InformationRespList-RL-
    AdditionFailureFDD  PRESENCE mandatory  }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics
      PRESENCE optional  },

```

```

}
...
}
RadioLinkAdditionFailureFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
...
}
Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}
Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
{ ID id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD CRITICALITY ignore TYPE Unsuccessful-RL-InformationRespItem-RL-
AdditionFailureFDD PRESENCE mandatory},
...
}
Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
rL-ID RL-ID,
cause Cause,
iE-Extensions ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs} }
OPTIONAL,
...
}
Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
Successful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ Successful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}
Successful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
{ ID id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD CRITICALITY ignore TYPE Successful-RL-InformationRespItem-RL-
AdditionFailureFDD PRESENCE mandatory},
...
}
Successful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
rL-ID RL-ID,
rL-Set-ID RL-Set-ID,
ul-InterferenceLevel UL-InterferenceLevel,
diversityIndication DiversityIndication-RL-AdditionFailureFDD,
sSDT-SupportIndicator SSDT-SupportIndicator,
iE-Extensions ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs} }
OPTIONAL,
...
}
Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}
DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
combining Combining-RL-AdditionFailureFDD,

```

```

    non-Combining                Non-Combining-RL-AdditionFailureFDD,
    ...
}

Combining-RL-AdditionFailureFDD ::= ProtocolIE-Container {{ CombiningIE-RL-AdditionFailureFDD }}

CombiningIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-AdditionFailureFDD    CRITICALITY ignore    TYPE CombiningItem-RL-AdditionFailureFDD    PRESENCE mandatory },
    ...
}

CombiningItem-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                                RL-ID,
    iE-Extensions                        ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} }            OPTIONAL,
    ...
}

CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Non-Combining-RL-AdditionFailureFDD ::= ProtocolIE-Container {{ Non-CombiningIE-RL-AdditionFailureFDD }}

Non-CombiningIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-Non-CombiningItem-RL-AdditionFailureFDD    CRITICALITY ignore    TYPE Non-CombiningItem-RL-AdditionFailureFDD    PRESENCE mandatory },
    ...
}

Non-CombiningItem-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-InformationResponseList          DCH-InformationResponseList-RL-AdditionFailureFDD,
    iE-Extensions                        ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs} }            OPTIONAL,
    ...
}

Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-AdditionFailureFDD

DCH-InformationResponseItem-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-ID                                DCH-ID,
    bindingID                              BindingID,
    transportLayerAddress                  TransportLayerAddress,
    iE-Extensions                        ProtocolExtensionContainer { { DCH-InformationResponseList-RL-AdditionFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

DCH-InformationResponseList-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****

```

```

--
-- RADIO LINK ADDITION FAILURE TDD
--
-- *****

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

RadioLinkAdditionFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID          CRITICALITY    ignore    TYPE    CRNC-CommunicationContextID
      PRESENCE    mandatory    }|
    { ID    id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD
      AdditionFailureTDD    PRESENCE    mandatory    }|
    { ID    id-CriticalityDiagnostics              CRITICALITY    ignore    TYPE    CriticalityDiagnostics
      PRESENCE    optional    },
    ...
}

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

Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD ::= SEQUENCE {
    rL-ID                RL-ID,
    cause                Cause,
    iE-Extensions        ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-ExtIEs } }    OPTIONAL,
    ...
}

Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- 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    }|
}

```

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```

{ 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,
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
    PRESENCE mandatory } |
  { ID id-UL-CCTrCH-InformationList-RL-ReconfPrepTDD
    PRESENCE optional } |
  { ID id-DL-CCTrCH-InformationList-RL-ReconfPrepTDD
    PRESENCE optional } |
  { ID id-DCH-ModifyList-RL-ReconfPrepTDD
    PRESENCE optional } |
  { ID id-DCH-AddList-RL-ReconfPrepTDD
    PRESENCE optional } |
  { ID id-DCH-DeleteList-RL-ReconfPrepTDD
    PRESENCE optional } |
  { ID id-DSCH-Information-ModifyList-RL-ReconfPrepTDD
    PRESENCE optional } |
  { ID id-DSCH-information-AddList-RL-ReconfPrepTDD
    PRESENCE optional } |
  { ID id-DSCH-Information-DeleteList-RL-ReconfPrepTDD
    PRESENCE optional } |
  { ID id-USCH-Information-ModifyList-RL-ReconfPrepTDD
    PRESENCE optional } |
  { ID id-USCH-information-AddList-RL-ReconfPrepTDD
    PRESENCE optional } |
  { ID id-USCH-Information-DeleteList-RL-ReconfPrepTDD
    PRESENCE optional } |
  { ID id-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
tdd-ChannelisationCode
burstType
midambleShift
timeSlot
tdd-PhysicalChannelOffset
repetitionPeriod
repetitionLength
tFCI-Presence
iE-Extensions
...
}

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
ul-cCtRCH-ID
dl-cCtRCH-ID
ul-TransportFormatSet
dl-TransportFormatSet
frameHandlingPriority
ul-FP-Mode
toAWS
toAWE
iE-Extensions
...
}

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
limitedPowerIncrease
ul-CCTrCH-ID
dl-CCTrCH-ID
dCH-CombinationIndication
ul-TransportFormatSet
dl-TransportFormatSet
frameHandlingPriority
payloadCRC-PresenceIndicator
ul-FP-Mode
toAWS
toAWE
iE-Extensions
...
}

```

```

}
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 ::= {
...
}

-- *****
--
-- 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,
  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-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 CRITICALITY ignore TYPE CRNC-CommunicationContextID PRESENCE mandatory } |
  { ID id-Cause CRITICALITY ignore TYPE 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
    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 mandatory },
  ...
}

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

-- *****
--
-- RADIO LINK RECONFIGURATION CANCEL
--
-- *****

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

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}}  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,
    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    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 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-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,
    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,
iE-Extensions                      ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfRsp-ExtIEs } }  OPTIONAL,
...
}

RL-InformationResponseItem-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 ::= {
    ...
}

-- *****
--
-- RADIO LINK DELETION REQUEST
--
-- *****

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

RadioLinkDeletionRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-NodeB-CommunicationContextID  CRITICALITY reject          TYPE NodeB-CommunicationContextID  PRESENCE
      mandatory } |
    { ID id-RL-informationList-RL-DeletionRqst  CRITICALITY notify          TYPE RL-informationList-RL-DeletionRqst  PRESENCE
      mandatory } ,
    ...
}

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

RL-informationList-RL-DeletionRqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{RL-informationItemIE-RL-DeletionRqst}}

```

```

RL-informationItemIE-RL-DeletionRqst NBAP-PROTOCOL-IES ::= {
  { ID      id-RL-informationItem-RL-DeletionRqst      CRITICALITY    notify          TYPE  RL-informationItem-RL-DeletionRqst      PRESENCE
    mandatory},
  ...
}

RL-informationItem-RL-DeletionRqst ::= SEQUENCE {
  rL-ID          RL-ID,
  iE-Extensions ProtocolExtensionContainer { { RL-informationItem-RL-DeletionRqst-ExtIEs} }  OPTIONAL,
  ...
}

RL-informationItem-RL-DeletionRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- RADIO LINK DELETION RESPONSE
--
-- *****

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

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

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

-- *****
--
-- DL POWER CONTROL REQUEST FDD
--
-- *****

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

DL-PowerControlRequest-IEs NBAP-PROTOCOL-IES ::= {

```

```

{ ID id-NodeB-CommunicationContextID          CRITICALITY ignore          TYPE          NodeB-CommunicationContextID          PRESENCE mandatory } |
{ ID id-PowerAdjustmentType                  CRITICALITY ignore          TYPE          PowerAdjustmentType          PRESENCE mandatory} |
{ ID id-DLReferencePower                      CRITICALITY ignore          TYPE          DL-Power                      PRESENCE conditional} |
-- This IE is present only 'Adjustment Type' equals to 'Common'
{ ID id-DLReferencePowerList-DL-PC-Rqst      CRITICALITY ignore          TYPE          DL-ReferencePowerInformationList-DL-PC-Rqst  PRESENCE conditional } |
-- This IE is present only 'Adjustment Type' equals to 'Individual'
{ ID id-MaxAdjustmentStep                    CRITICALITY ignore          TYPE          ScaledMaxAdjustmentStep      PRESENCE conditional} |
-- This IE is present only 'Adjustment Type " equals to 'Common' or 'Individual'
{ ID id-MaxAdjustmentPeriod                  CRITICALITY ignore          TYPE          ScaledMaxAdjustmentPeriod    PRESENCE conditional },
-- This IE is present only 'Adjustment Type " equals to 'Common' or 'Individual'
...
}

DL-PowerControlRequest-Extensions NBAP-PROTOCOL-EXTENSION ::= {
...
}

DL-ReferencePowerInformationList-DL-PC-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{DL-ReferencePowerInformationItemIE-DL-PC-Rqst
}}

DL-ReferencePowerInformationItemIE-DL-PC-Rqst NBAP-PROTOCOL-IES ::= {
{ ID id-DL-ReferencePowerInformationItem-DL-PC-Rqst          CRITICALITY          ignore          TYPE          DL-ReferencePowerInformationItem-DL-PC-Rqst
PRESENCE          mandatory
},
...
}

DL-ReferencePowerInformationItem-DL-PC-Rqst ::= SEQUENCE {
rL-ID                      RL-ID,
dl-ReferencePower          DL-Power,
iE-Extensions              ProtocolExtensionContainer { { DL-ReferencePowerInformationItem-DL-PC-Rqst-ExtIEs } }      OPTIONAL,
...
}

DL-ReferencePowerInformationItem-DL-PC-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

-- *****
--
-- DEDICATED MEASUREMENT INITIATION REQUEST
--
-- *****

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

DedicatedMeasurementInitiationRequest-IEs NBAP-PROTOCOL-IES ::= {
{ ID          id-NodeB-CommunicationContextID          CRITICALITY          reject          TYPE          NodeB-CommunicationContextID          PRESENCE
mandatory } |

```

```

{ ID id-MeasurementID CRITICALITY reject TYPE MeasurementID PRESENCE mandatory }
|
{ ID id-DedicatedMeasurementObjectType CRITICALITY reject TYPE DedicatedMeasurementObjectType PRESENCE
mandatory } |
{ ID id-DedicatedMeasurementObjectType-DM-Rqst CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rqst PRESENCE
mandatory } |
{ ID id-DedicatedMeasurementType CRITICALITY reject TYPE DedicatedMeasurementType PRESENCE mandatory
} |
{ ID id-MeasurementFilterCoefficient CRITICALITY reject TYPE MeasurementFilterCoefficient PRESENCE
optional } |
{ ID id-ReportCharacteristics CRITICALITY reject TYPE ReportCharacteristics PRESENCE mandatory
} ,
...
}

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

DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
rL RL-DM-Rqst,
rLS RL-Set-DM-Rqst,
...
}

RL-DM-Rqst ::= ProtocolIE-Container {{ RLIE-DM-Rqst }}

RLIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
{ ID id-RLItem-DM-Rqst CRITICALITY reject TYPE RLItem-DM-Rqst PRESENCE mandatory },
...
}

RLItem-DM-Rqst ::= SEQUENCE {
rL-InformationList RL-InformationList-DM-Rqst,
iE-Extensions ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs } } OPTIONAL,
...
}

RLItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
...
}

RL-InformationList-DM-Rqst ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-InformationItemIE-DM-Rqst }}

RL-InformationItemIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
{ ID id-RL-InformationItem-DM-Rqst CRITICALITY reject TYPE RL-InformationItem-DM-Rqst PRESENCE mandatory },
...
}

RL-InformationItem-DM-Rqst ::= SEQUENCE {
rL-ID RL-ID,
dPCH-ID DPCH-ID OPTIONAL,
iE-Extensions ProtocolExtensionContainer { { RL-InformationItem-DM-Rqst-ExtIEs } } OPTIONAL,
...
}

```

```

}
RL-InformationItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
RL-Set-DM-Rqst ::= ProtocolIE-Container {{ RL-SetIE-DM-Rqst }}
RL-SetIE-DM-Rqst NBAP-PROTOCOL-IES ::= {
  { ID id-RL-SetItem-DM-Rqst  CRITICALITY reject TYPE RL-SetItem-DM-Rqst  PRESENCE mandatory },
  ...
}
RL-SetItem-DM-Rqst ::= SEQUENCE {
  rL-Set-InformationList-DM-Rqst          RL-Set-InformationList-DM-Rqst,
  iE-Extensions                          ProtocolExtensionContainer { { RL-SetItem-DM-Rqst-ExtIEs } }  OPTIONAL,
  ...
}
RL-SetItem-DM-Rqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
RL-Set-InformationList-DM-Rqst          ::= SEQUENCE (SIZE(1..maxNrOfRLSets)) OF RL-Set-InformationItem-DM-Rqst
RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
  rL-Set-ID          RL-Set-ID,
  iE-Extensions      ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rqst-ExtIEs } } OPTIONAL,
  ...
}
RL-Set-InformationItem-DM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
-- *****
--
-- DEDICATED MEASUREMENT INITIATION RESPONSE
--
-- *****
DedicatedMeasurementInitiationResponse ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container  {{DedicatedMeasurementInitiationResponse-IEs}},
  protocolExtensions  ProtocolExtensionContainer  {{DedicatedMeasurementInitiationResponse-Extensions}}  OPTIONAL,
  ...
}
DedicatedMeasurementInitiationResponse-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID          CRITICALITY ignore TYPE CRNC-CommunicationContextID          PRESENCE
    mandatory } |
  { ID id-MeasurementID                        CRITICALITY ignore TYPE MeasurementID                    PRESENCE mandatory }
  |
  { ID id-DedicatedMeasurementObjectType-DM-Rsp          CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rsp          PRESENCE
    mandatory } |

```

```

    { ID id-CFN                                CRITICALITY ignore TYPE CFN PRESENCE optional } |
    { ID id-CriticalityDiagnostics             CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE PRESENCE
optional },
    ...
}

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

DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
    rL RL-DM-Rsp,
    rLS RL-Set-DM-Rsp,
    all-RL AllRL-DM-Rsp,
    all-RLS AllRL-Set-DM-Rsp,
    ...
}

RL-DM-Rsp ::= ProtocolIE-Container {{ RLIE-DM-Rsp }}

RLIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-RLItem-DM-Rsp CRITICALITY ignore TYPE RLItem-DM-Rsp PRESENCE mandatory },
    ...
}

RLItem-DM-Rsp ::= SEQUENCE {
    rL-InformationList-DM-Rsp RL-InformationList-DM-Rsp,
    iE-Extensions ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs } } OPTIONAL,
    ...
}

RLItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllRL-DM-Rsp ::= ProtocolIE-Container {{ AllRLIE-DM-Rsp }}

AllRLIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-AllRLItem-DM-Rsp CRITICALITY ignore TYPE AllRLItem-DM-Rsp PRESENCE mandatory },
    ...
}

AllRLItem-DM-Rsp ::= SEQUENCE {
    rL-InformationList-DM-Rsp RL-InformationList-DM-Rsp,
    iE-Extensions ProtocolExtensionContainer { { AllRLItem-DM-Rsp-ExtIEs } } OPTIONAL,
    ...
}

AllRLItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-InformationItemIE-DM-Rsp }}

```

```

RL-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationItem-DM-Rsp  CRITICALITY ignore  TYPE RL-InformationItem-DM-Rsp  PRESENCE mandatory },
  ...
}

RL-InformationItem-DM-Rsp ::= SEQUENCE {
  rL-ID                RL-ID,
  dPCH-ID              DPCH-ID  OPTIONAL,
  dedicatedMeasurementValue  DedicatedMeasurementValue,
  iE-Extensions        ProtocolExtensionContainer { { RL-InformationItem-DM-Rsp-ExtIEs } }  OPTIONAL,
  ...
}

RL-InformationItem-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-Set-DM-Rsp ::= ProtocolIE-Container {{ RL-SetIE-DM-Rsp }}

RL-SetIE-DM-Rsp NBAP-PROTOCOL-IES ::= {
  { ID id-RL-SetItem-DM-Rsp  CRITICALITY ignore  TYPE RL-SetItem-DM-Rsp  PRESENCE mandatory },
  ...
}

RL-SetItem-DM-Rsp ::= SEQUENCE {
  rL-Set-InformationList-DM-Rsp  RL-Set-InformationList-DM-Rsp,
  iE-Extensions                  ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs } }  OPTIONAL,
  ...
}

RL-SetItem-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

AllRL-Set-DM-Rsp ::= ProtocolIE-Container {{ AllRLIE-Set-DM-Rsp }}

AllRLIE-Set-DM-Rsp NBAP-PROTOCOL-IES ::= {
  { ID id-AllRLItem-Set-DM-Rsp  CRITICALITY ignore  TYPE AllRLItem-Set-DM-Rsp  PRESENCE mandatory },
  ...
}

AllRLItem-Set-DM-Rsp ::= SEQUENCE {
  rL-Set-InformationList-DM-Rsp  RL-Set-InformationList-DM-Rsp,
  iE-Extensions                  ProtocolExtensionContainer { { AllRLItem-Set-DM-Rsp-ExtIEs } }  OPTIONAL,
  ...
}

AllRLItem-Set-DM-Rsp-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-Set-InformationList-DM-Rsp ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Container {{ RL-Set-InformationItemIE-DM-Rsp }}

RL-Set-InformationItemIE-DM-Rsp NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-RL-Set-InformationItem-DM-Rsp          CRITICALITY ignore          TYPE          RL-Set-InformationItem-DM-Rsp PRESENCE mandatory },
    ...
}

RL-Set-InformationItem-DM-Rsp ::= SEQUENCE {
    rL-Set-ID          RL-Set-ID,
    dedicatedMeasurementValue    DedicatedMeasurementValue,
    iE-Extensions      ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rsp-ExtIEs } } OPTIONAL,
    ...
}

RL-Set-InformationItem-DM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- DEDICATED MEASUREMENT INITIATION FAILURE
--
-- *****

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

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

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

-- *****
--
-- DEDICATED MEASUREMENT REPORT
--
-- *****

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

DedicatedMeasurementReport-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-CRNC-CommunicationContextID      CRITICALITY  ignore          TYPE          CRNC-CommunicationContextID      PRESENCE
    mandatory } |

```



```

{ ID id-MeasurementID CRITICALITY ignore TYPE MeasurementID PRESENCE mandatory
  |
  { ID id-DedicatedMeasurementObjectType-DM-Rprt CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rprt PRESENCE
    mandatory } |
  { ID id-CFN CRITICALITY ignore TYPE CFN PRESENCE optional
  },
  ...
}

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

DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
  rL RL-DM-Rprt,
  rLS RL-Set-DM-Rprt,
  all-RL RL-DM-Rprt,
  all-RLS RL-Set-DM-Rprt,
  ...
}

RL-DM-Rprt ::= ProtocolIE-Container {{ RLIE-DM-Rprt }}

RLIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
  { ID id-RLItem-DM-Rprt CRITICALITY ignore TYPE RLItem-DM-Rprt PRESENCE mandatory },
  ...
}

RLItem-DM-Rprt ::= SEQUENCE {
  rL-InformationList-DM-Rprt RL-InformationList-DM-Rprt,
  iE-Extensions ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs } } OPTIONAL,
  ...
}

RLItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

AllRL-DM-Rprt ::= ProtocolIE-Container {{ AllRLIE-DM-Rprt }}

AllRLIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
  { ID id-AllRLItem-DM-Rprt CRITICALITY ignore TYPE AllRLItem-DM-Rprt PRESENCE mandatory },
  ...
}

AllRLItem-DM-Rprt ::= SEQUENCE {
  rL-InformationList-DM-Rprt RL-InformationList-DM-Rprt,
  iE-Extensions ProtocolExtensionContainer { { AllRLItem-DM-Rprt-ExtIEs } } OPTIONAL,
  ...
}

AllRLItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

RL-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-InformationItemIE-DM-Rprt }}

RL-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationItem-DM-Rprt  CRITICALITY ignore TYPE RL-InformationItem-DM-Rprt  PRESENCE mandatory },
  ...
}

RL-InformationItem-DM-Rprt ::= SEQUENCE {
  rL-ID          RL-ID,
  dPCH-ID        DPCH-ID  OPTIONAL,
  dedicatedMeasurementValue  DedicatedMeasurementValue,
  iE-Extensions  ProtocolExtensionContainer { { RL-InformationItem-DM-Rprt-ExtIEs } }  OPTIONAL,
  ...
}

RL-InformationItem-DM-Rprt-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-Set-DM-Rprt ::= ProtocolIE-Container {{ RL-SetIE-DM-Rprt }}

RL-SetIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
  { ID id-RL-SetItem-DM-Rprt  CRITICALITY ignore  TYPE RL-SetItem-DM-Rprt  PRESENCE mandatory },
  ...
}

RL-SetItem-DM-Rprt ::= SEQUENCE {
  rL-Set-InformationList-DM-Rprt  RL-Set-InformationList-DM-Rprt,
  iE-Extensions  ProtocolExtensionContainer { { RL-SetItem-DM-Rprt-ExtIEs } }  OPTIONAL,
  ...
}

RL-SetItem-DM-Rprt-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

AllRL-Set-DM-Rprt ::= ProtocolIE-Container {{ AllRLIE-Set-DM-Rprt }}

AllRLIE-Set-DM-Rprt NBAP-PROTOCOL-IES ::= {
  { ID id-AllRLItem-Set-DM-Rprt  CRITICALITY ignore  TYPE AllRLItem-Set-DM-Rprt  PRESENCE mandatory },
  ...
}

AllRLItem-Set-DM-Rprt ::= SEQUENCE {
  rL-Set-InformationList-DM-Rprt  RL-Set-InformationList-DM-Rprt,
  iE-Extensions  ProtocolExtensionContainer { { AllRLItem-Set-DM-Rprt-ExtIEs } }  OPTIONAL,
  ...
}

AllRLItem-Set-DM-Rprt-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-Set-InformationList-DM-Rprt ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Container {{ RL-Set-InformationItemIE-DM-Rprt }}

```

```

RL-Set-InformationItemIE-DM-Rprt NBAP-PROTOCOL-IES ::= {
  { ID id-RL-Set-InformationItem-DM-Rprt CRITICALITY ignore TYPE RL-Set-InformationItem-DM-Rprt PRESENCE mandatory },
  ...
}

RL-Set-InformationItem-DM-Rprt ::= SEQUENCE {
  rL-Set-ID RL-Set-ID,
  dedicatedMeasurementValue DedicatedMeasurementValue,
  iE-Extensions ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rprt-ExtIEs } } OPTIONAL,
  ...
}

RL-Set-InformationItem-DM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- DEDICATED MEASUREMENT TERMINATION REQUEST
--
-- *****

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

DedicatedMeasurementTerminationRequest-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-NodeB-CommunicationContextID CRITICALITY ignore TYPE NodeB-CommunicationContextID PRESENCE mandatory } |
  { ID id-MeasurementID CRITICALITY ignore TYPE MeasurementID PRESENCE mandatory },
  ...
}

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

-- *****
--
-- DEDICATED MEASUREMENT FAILURE INDICATION
--
-- *****

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

DedicatedMeasurementFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID CRITICALITY ignore TYPE CRNC-CommunicationContextID PRESENCE mandatory } |
  { ID id-MeasurementID CRITICALITY ignore TYPE MeasurementID PRESENCE mandatory } |

```

```

    { ID      id-Cause
      ...
    }
}

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

-- *****
--
-- RADIO LINK FAILURE INDICATION
--
-- *****

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

RadioLinkFailureIndication-IEs NBAP-PROTOCOL-IES ::= {
  { ID      id-CRNC-CommunicationContextID          CRITICALITY  ignore          TYPE      CRNC-CommunicationContextID          PRESENCE mandatory
    |
    { ID      id-Reporting-Object-RL-FailureInd      CRITICALITY  ignore          TYPE      Reporting-Object-RL-FailureInd          PRESENCE mandatory }
  |
    { ID      id-CriticalityDiagnostics             CRITICALITY  ignore          TYPE      CriticalityDiagnostics                 PRESENCE optional
    },
  ...
}

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

Reporting-Object-RL-FailureInd ::= CHOICE {
  rL              RL-RL-FailureInd,
  rL-Set          RL-Set-RL-FailureInd,
  ...
}

RL-RL-FailureInd ::= ProtocolIE-Container {{ RLIE-RL-FailureInd }}

RLIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
  { ID id-RLItem-RL-FailureInd  CRITICALITY ignore  TYPE RLItem-RL-FailureInd          PRESENCE mandatory },
  ...
}

RLItem-RL-FailureInd ::= SEQUENCE {
  rL-InformationList-RL-FailureInd          RL-InformationList-RL-FailureInd,
  iE-Extensions                             ProtocolExtensionContainer { { RLItem-RL-FailureInd-ExtIEs } } OPTIONAL,
  ...
}

RLItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
}
RL-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ RL-InformationItemIE-RL-FailureInd}}
RL-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationItem-RL-FailureInd CRITICALITY ignore TYPE RL-InformationItem-RL-FailureInd PRESENCE
  mandatory},
  ...
}
RL-InformationItem-RL-FailureInd ::= SEQUENCE {
  rL-ID RL-ID,
  cause Cause,
  iE-Extensions ProtocolExtensionContainer { { RL-InformationItem-RL-FailureInd-ExtIEs } } OPTIONAL,
  ...
}
RL-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
RL-Set-RL-FailureInd ::= ProtocolIE-Container {{ RL-SetIE-RL-FailureInd }}
RL-SetIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
  { ID id-RL-SetItem-RL-FailureInd CRITICALITY ignore TYPE RL-SetItem-RL-FailureInd PRESENCE mandatory },
  ...
}
RL-SetItem-RL-FailureInd ::= SEQUENCE {
  rL-Set-InformationList-RL-FailureInd RL-Set-InformationList-RL-FailureInd,
  iE-Extensions ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs } } OPTIONAL,
  ...
}
RL-SetItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
RL-Set-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Container {{ RL-Set-InformationItemIE-RL-FailureInd }}
RL-Set-InformationItemIE-RL-FailureInd NBAP-PROTOCOL-IES ::= {
  { ID id-RL-Set-InformationItem-RL-FailureInd CRITICALITY ignore TYPE RL-Set-InformationItem-RL-FailureInd PRESENCE mandatory },
  ...
}
RL-Set-InformationItem-RL-FailureInd ::= SEQUENCE {
  rL-Set-ID RL-Set-ID,
  cause Cause,
  iE-Extensions ProtocolExtensionContainer { { RL-Set-InformationItem-RL-FailureInd-ExtIEs } } OPTIONAL,
  ...
}
RL-Set-InformationItem-RL-FailureInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
-- *****
--
-- RADIO LINK RESTORE INDICATION
--
-- *****

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

RadioLinkRestoreIndication-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-CRNC-CommunicationContextID      CRITICALITY   ignore          TYPE      CRNC-CommunicationContextID      PRESENCE mandatory
    } |
    { ID      id-Reporting-Object-RL-RestoreInd   CRITICALITY   ignore          TYPE      Reporting-Object-RL-RestoreInd      PRESENCE mandatory
    },
    ...
}

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

Reporting-Object-RL-RestoreInd ::= CHOICE {
    rL              RL-RL-RestoreInd,
    rL-Set          RL-Set-RL-RestoreInd,
    ...
}

RL-RL-RestoreInd ::= ProtocolIE-Container {{ RLIE-RL-RestoreInd }}

RLIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
    { ID id-RLItem-RL-RestoreInd   CRITICALITY ignore   TYPE RLItem-RL-RestoreInd      PRESENCE mandatory },
    ...
}

RLItem-RL-RestoreInd ::= SEQUENCE {
    rL-InformationList-RL-RestoreInd      RL-InformationList-RL-RestoreInd,
    iE-Extensions                          ProtocolExtensionContainer { { RLItem-RL-RestoreInd-ExtIEs } } OPTIONAL,
    ...
}

RLItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{RL-InformationItemIE-RL-RestoreInd}}

RL-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {

```

```

    { ID id-RL-InformationItem-RL-RestoreInd      CRITICALITY ignore      TYPE RL-InformationItem-RL-RestoreInd      PRESENCE
      mandatory},
    ...
  }

RL-InformationItem-RL-RestoreInd ::= SEQUENCE {
  rL-ID          RL-ID,
  iE-Extensions  ProtocolExtensionContainer { { RL-InformationItem-RL-RestoreInd-ExtIEs } }      OPTIONAL,
  ...
}

RL-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-Set-RL-RestoreInd ::= ProtocolIE-Container {{ RL-SetIE-RL-RestoreInd }}

RL-SetIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
  { ID id-RL-SetItem-RL-RestoreInd      CRITICALITY ignore      TYPE RL-SetItem-RL-RestoreInd      PRESENCE mandatory },
  ...
}

RL-SetItem-RL-RestoreInd ::= SEQUENCE {
  rL-Set-InformationList-RL-RestoreInd  RL-Set-InformationList-RL-RestoreInd,
  iE-Extensions                          ProtocolExtensionContainer { { RL-SetItem-RL-RestoreInd-ExtIEs } }      OPTIONAL,
  ...
}

RL-SetItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-Set-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Container {{ RL-Set-InformationItemIE-RL-RestoreInd }}

RL-Set-InformationItemIE-RL-RestoreInd NBAP-PROTOCOL-IES ::= {
  { ID id-RL-Set-InformationItem-RL-RestoreInd      CRITICALITY ignore      TYPE RL-Set-InformationItem-RL-RestoreInd PRESENCE mandatory },
  ...
}

RL-Set-InformationItem-RL-RestoreInd ::= SEQUENCE {
  rL-Set-ID          RL-Set-ID,
  iE-Extensions      ProtocolExtensionContainer { { RL-Set-InformationItem-RL-RestoreInd-ExtIEs } }      OPTIONAL,
  ...
}

RL-Set-InformationItem-RL-RestoreInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

-- *****
--
-- COMPRESSED MODE PREPARE FDD
--
-- *****

```

```

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

CompressedModePrepare-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-NodeB-CommunicationContextID          CRITICALITY      reject          TYPE      NodeB-CommunicationContextID PRESENCE      mandatory } |
    { ID      id-CM-PatternInformationList-CompressedModePrep CRITICALITY reject          TYPE      CM-PatternInformationList-CompressedModePrep
    PRESENCE      mandatory },
    ...
}

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

CM-PatternInformationList-CompressedModePrep ::= SEQUENCE (SIZE (1.. maxNrOfCMpatterns)) OF ProtocolIE-Container {{ CM-PatternInformationItemIE-CompressedModePrep }}

CM-PatternInformationItemIE-CompressedModePrep NBAP-PROTOCOL-IES ::= {
    { ID      id-CM-PatternInformationItem-CompressedModePrep CRITICALITY      reject          TYPE      CM-PatternInformationItem-CompressedModePrep
    PRESENCE      mandatory},
    ...
}

CM-PatternInformationItem-CompressedModePrep ::= SEQUENCE {
    cFNOffset          CFNOffset,
    tGP1               GapPeriod,
    tGP2               GapPeriod          OPTIONAL,
    tGL                TGL,
    tGD                TGD,
    pD                 PD,
    ul-DL-CompressedModeSelection UL-DL-CompressedModeSelection,
    compressedModeMethod CompressedModeMethod,
    gapPositionMode    GapPositionMode,
    sN                 TimeSlot          OPTIONAL,
    -- This IE is present if Gap position mode = 'flexible position'--
    dl-FrameType       DL-FrameType,
    scramblingCodeChange ScramblingCodeChange OPTIONAL,
    -- This IE is present if Compressed mode method = 'SF/2' --
    powerControlMode   PowerControlMode,
    powerResumeMode    PowerResumeMode,
    ul-DeltaSIR        UL-DeltaSIR,
    ul-DeltaSIR-after  UL-DeltaSIR-after,
    iE-Extensions      ProtocolExtensionContainer { { CM-PatternInformationItem-CompressedModePrep-ExtIEs } } OPTIONAL,
    ...
}

CM-PatternInformationItem-CompressedModePrep-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
-- *****

```



```

--
-- COMPRESSED MODE READY FDD
--
-- *****

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

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

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

-- *****
--
-- COMPRESSED MODE COMMIT FDD
--
-- *****

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

CompressedModeCommit-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-NodeB-CommunicationContextID      CRITICALITY   ignore          TYPE      NodeB-CommunicationContextID      PRESENCE mandatory } |
    { ID      id-CFN                               CRITICALITY   ignore          TYPE      CFN                               PRESENCE mandatory },
    ...
}

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

-- *****
--
-- COMPRESSED MODE FAILURE FDD
--
-- *****

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

```

```

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

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

-- *****
--
-- COMPRESSED MODE CANCEL FDD
--
-- *****

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

CompressedModeCancel-IEs NBAP-PROTOCOL-IES ::= {
  { ID      id-NodeB-CommunicationContextID      CRITICALITY  ignore      TYPE      NodeB-CommunicationContextID      PRESENCE mandatory },
  ...
}

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

-- *****
--
-- ERROR INDICATION
--
-- *****

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

ErrorIndication-IEs NBAP-PROTOCOL-IES ::= {
  { ID      id-CRNC-CommunicationContextID      CRITICALITY  ignore      TYPE      CRNC-CommunicationContextID      PRESENCE conditional } |
  -- This IE is only present when message is transmitted by a Node B on a signalling bearer corresponding to a communication control port --
  { ID      id-NodeB-CommunicationContextID      CRITICALITY  ignore      TYPE      NodeB-CommunicationContextID      PRESENCE conditional } |
  -- This IE is only present when message is transmitted by a RNC on a signalling bearer corresponding to a communication control port --
  { ID      id-Cause                             CRITICALITY  ignore      TYPE      Cause                             PRESENCE conditional } |
  -- At least either or Cause IE or Criticality Diagnostic IE shall be present--
  { ID      id-CriticalityDiagnostics            CRITICALITY  ignore      TYPE      CriticalityDiagnostics            PRESENCE conditional },
  -- At least either or Cause IE or Criticality Diagnostic IE shall be present--

```

```

}
...
ErrorIndication-Extensions NBAP-PROTOCOL-EXTENSION ::= {
}
...
-- *****
--
-- PRIVATE MESSAGE
--
-- *****

PrivateMessage ::= SEQUENCE {
    privateIEs      PrivateIE-Container {{PrivateMessage-IEs}},
    ...
}

PrivateMessage-IEs NBAP-PRIVATE-IES ::= {
}
...
-- *****
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST TDD
--
-- *****

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

PhysicalSharedChannelReconfigurationRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-C-ID                CRITICALITY  reject          TYPE  C-ID                PRESENCE mandatory
    } |
    { ID      id-PDSCHSets-AddList-PSCH-ReconfRqst  CRITICALITY  reject          TYPE  PDSCHSets-AddList-PSCH-ReconfRqst  PRESENCE
    optional } |
    { ID      id-PDSCHSets-ModifyList-PSCH-ReconfRqst  CRITICALITY  reject          TYPE  PDSCHSets-ModifyList-PSCH-ReconfRqst  PRESENCE
    optional } |
    { ID      id-PDSCHSets-DeleteList-PSCH-ReconfRqst  CRITICALITY  reject          TYPE  PDSCHSets-DeleteList-PSCH-ReconfRqst  PRESENCE
    optional } |
    { ID      id-PUSCHSets-AddList-PSCH-ReconfRqst  CRITICALITY  reject          TYPE  PUSCHSets-AddList-PSCH-ReconfRqst  PRESENCE
    optional } |
    { ID      id-PUSCHSets-ModifyList-PSCH-ReconfRqst  CRITICALITY  reject          TYPE  PUSCHSets-ModifyList-PSCH-ReconfRqst  PRESENCE
    optional } |
    { ID      id-PUSCHSets-DeleteList-PSCH-ReconfRqst  CRITICALITY  reject          TYPE  PUSCHSets-DeleteList-PSCH-ReconfRqst  PRESENCE
    optional },
    ...
}

PhysicalSharedChannelReconfigurationRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...

```

```

}

PDSCHSets-AddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-AddItem-PSCH-ReconfRqst

PDSCHSets-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCHSet-ID                PDSCHSet-ID,
    pDSCH-InformationList      PDSCH-Information-AddList-PSCH-ReconfRqst OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { {PDSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PDSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-Information-AddList-PSCH-ReconfRqst ::= ProtocolIE-Container {{ PDSCH-Information-AddListIEs-PSCH-ReconfRqst }}

PDSCH-Information-AddListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
    {ID id-PDSCH-Information-AddListIE-PSCH-ReconfRqst CRITICALITY reject TYPE PDSCH-Information-AddListIE-PSCH-ReconfRqst PRESENCE
    mandatory},
    ...
}

PDSCH-Information-AddListIE-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF PDSCH-Information-AddItem-PSCH-ReconfRqst

PDSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                    PDSCH-ID,
    tdd-ChannelisationCode      TDD-ChannelisationCode,
    burstType                   BurstType,
    midambleShift               MidambleShift,
    timeslot                    Timeslot,
    repetitionPeriod            RepetitionPeriod,
    tdd-PhysicalChannelOffset   TDD-PhysicalChannelOffset OPTIONAL,
    repetitionLength            RepetitionLength OPTIONAL,
    tFCI-Presence               TFCI-Presence,
    iE-Extensions              ProtocolExtensionContainer { {PDSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PDSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCHSets-ModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-ModifyItem-PSCH-ReconfRqst

PDSCHSets-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCHSet-ID                PDSCHSet-ID,
    pDSCH-InformationList      PDSCH-Information-ModifyList-PSCH-ReconfRqst OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { {PDSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PDSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

PDSCH-Information-ModifyList-PSCH-ReconfRqst ::= ProtocolIE-Container {{ PDSCH-Information-ModifyListIEs-PSCH-ReconfRqst }}

PDSCH-Information-ModifyListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
  {ID id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst  CRITICALITY reject      TYPE      PDSCH-Information-ModifyListIE-PSCH-ReconfRqst
  PRESENCE      mandatory},
  ...
}

PDSCH-Information-ModifyListIE-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF PDSCH-Information-ModifyItem-PSCH-ReconfRqst

PDSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  pDSCH-ID                PDSCH-ID,
  tdd-ChannelisationCode  TDD-ChannelisationCode,
  burstType               BurstType,
  midambleShift           MidambleShift,
  timeSlot                TimeSlot,
  repetitionPeriod        RepetitionPeriod,
  tdd-PhysicalChannelOffset OPTIONAL,
  repetitionLength        RepetitionLength      OPTIONAL,
  tFCI-Presence           TFCI-Presence,
  iE-Extensions           ProtocolExtensionContainer { {PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} }  OPTIONAL,
  ...
}

PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PDSCHSets-DeleteList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHSets)) OF PDSCHSets-DeleteItem-PSCH-ReconfRqst

PDSCHSets-DeleteItem-PSCH-ReconfRqst ::= SEQUENCE {
  pDSCHSet-ID            PDSCHSet-ID,
  iE-Extensions          ProtocolExtensionContainer { {PDSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs} }  OPTIONAL,
  ...
}

PDSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PUSCHSets-AddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-AddItem-PSCH-ReconfRqst

PUSCHSets-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
  pUSCHSet-ID            PUSCHSet-ID,
  pUSCH-InformationList  PDSCH-Information-AddList-PSCH-ReconfRqst  OPTIONAL,
  iE-Extensions          ProtocolExtensionContainer { {PUSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs} }  OPTIONAL,
  ...
}

PUSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

PUSCH-Information-AddList-PSCH-ReconfRqst ::= ProtocolIE-Container {{ PUSCH-Information-AddListIEs-PSCH-ReconfRqst }}

PUSCH-Information-AddListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
  {ID id-PUSCH-Information-AddListIE-PSCH-ReconfRqst CRITICALITY reject TYPE PUSCH-Information-AddListIE-PSCH-ReconfRqst PRESENCE
  mandatory},
  ...
}

PUSCH-Information-AddListIE-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-Information-AddItem-PSCH-ReconfRqst

PUSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
  pUSCH-ID PUSCH-ID,
  tdd-ChannelisationCode TDD-ChannelisationCode,
  burstType BurstType,
  midambleShift MidambleShift,
  timeSlot TimeSlot,
  repetitionPeriod RepetitionPeriod,
  tdd-PhysicalChannelOffset TDD-PhysicalChannelOffset OPTIONAL,
  repetitionLength RepetitionLength OPTIONAL,
  tFCI-Presence TFCI-Presence,
  iE-Extensions ProtocolExtensionContainer { {PUSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
  ...
}

PUSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PUSCHSets-ModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-ModifyItem-PSCH-ReconfRqst

PUSCHSets-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  pUSCHSet-ID PUSCHSet-ID,
  pUSCH-InformationList PDSCH-Information-ModifyList-PSCH-ReconfRqst OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { {PUSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
  ...
}

PUSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

PUSCH-Information-ModifyList-PSCH-ReconfRqst ::= ProtocolIE-Container {{ PUSCH-Information-ModifyListIEs-PSCH-ReconfRqst }}

PUSCH-Information-ModifyListIEs-PSCH-ReconfRqst NBAP-PROTOCOL-IES ::= {
  {ID id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst CRITICALITY reject TYPE PUSCH-Information-ModifyListIE-PSCH-ReconfRqst
  PRESENCE mandatory},
  ...
}

PUSCH-Information-ModifyListIE-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF PUSCH-Information-ModifyItem-PSCH-ReconfRqst

PUSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
  pUSCH-ID PUSCH-ID,

```

```

    tdd-ChannelisationCode      TDD-ChannelisationCode,
    burstType                   BurstType,
    midambleShift               MidambleShift,
    timeSlot                    TimeSlot,
    repetitionPeriod            RepetitionPeriod,
    tdd-PhysicalChannelOffset   TDD-PhysicalChannelOffset   OPTIONAL,
    repetitionLength            RepetitionLength   OPTIONAL,
    tFCI-Presence               TFCI-Presence,
    iE-Extensions               ProtocolExtensionContainer { {PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PUSCHSets-DeleteList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHSets)) OF PUSCHSets-DeleteItem-PSCH-ReconfRqst

PUSCHSets-DeleteItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCHSet-ID                PUSCHSet-ID,
    iE-Extensions              ProtocolExtensionContainer { {PUSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs} } OPTIONAL,
    ...
}

PUSCHSets-DeleteItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE TDD
--
-- *****

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

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

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

-- *****
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE TDD
--

```

```

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

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

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

END

```

9.3.4 NBAP Information Elements

```

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

```

```

NBAP-IEs
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN

```

```

IMPORTS
    maxNrOfTFCS,
    maxNrOfErrors,
    maxCTFC-1,
    maxNrOfTFs,
    maxTTL-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 [7]{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
-- =====

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
        explicit
    },
    iE-Extensions
    ...
}

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 [9]{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 ::= {
  ...
}

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 \[5\]25-225

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

RSSI-Value ::= INTEGER(0..63)
| -- According to mapping in \[4\] and \[5\]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 [4] snd [5]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,
    ...
}

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 \[5\]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 [4] and [5]25-215/25-225

Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in [4] and [5]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 CHOICE {
                tFCI-Range TFCS-TFC-MapingOnDSCHList,
                explicit TFCS-TFC-DSCHList
            }
        }
    },
    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 { { 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'
  rateMatcingAttribute         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 (1..5000)
TransportLayerAddress ::= BIT STRING (SIZE (1..160, ...))
TSTD-Indicator ::= ENUMERATED {
    active,
    inactive,
    ...
}
-- =====
-- U
-- =====
```

```

UARFCN ::= INTEGER (0..16383, ...)
-- corresponds to 1885.2MHz .. 2024.8MHz

UL-CapacityCredit ::= INTEGER (0..65535)

UL-DL-CompressedModeSelection ::= ENUMERATED {
    ul-only,
    dl-only,
    both,
    ...
}

UL-DeltaSIR ::= INTEGER (-60..100)
-- UL-DeltaSIR = DeltaSIR * 10
-- Unit dB, Range -6dB .. 10dB, Step 0.1dB

UL-DeltaSIR-after ::= INTEGER (-60..100)
-- UL-DeltaSIR = DeltaSIR * 10
-- Unit dB, Range -6dB .. 10dB, Step 0.1dB

UL-DPCCH-SlotFormat ::= INTEGER (0..5)

UL-SIR ::= INTEGER (-82..173)
-- According to mapping in \[16\]–25.427

UL-FP-Mode ::= ENUMERATED {
    normal,
    silent,
    ...
}

UL-InterferenceLevel ::= INTEGER (-1280..-600)
-- UL-InterferenceLevel = InterferenceLevel * 10
-- Unit dBm, Range -128dBm .. -60dBm, Step 0.1dBm

UL-ScramblingCode ::= SEQUENCE {
    uL-ScramblingCodeNumber          UL-ScramblingCodeNumber,
    uL-ScramblingCodeLength          UL-ScramblingCodeLength,
    iE-Extensions                    ProtocolExtensionContainer { { UL-ScramblingCode-ExtIEs } } OPTIONAL,
    ...
}

UL-ScramblingCode-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-ScramblingCodeNumber ::= INTEGER (0..16777215)

UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long,
    ...
}

```



```

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

-- =====
-- V
-- =====

-- =====
-- W
-- =====

-- =====
-- X
-- =====

-- =====
-- Y
-- =====

-- =====
-- Z
-- =====

END

```

9.3.5 NBAP Common Data Type Definitions

```

-- *****
--
-- Common definitions
--
-- *****

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

BEGIN

Criticality      ::= ENUMERATED { reject, ignore, notify }

MessageDiscriminator ::= ENUMERATED { common, dedicated }

Presence        ::= ENUMERATED { optional, conditional, mandatory }

PrivateIE-ID    ::= CHOICE {
    local          INTEGER (0..65535),
    global         OBJECT IDENTIFIER
}

ProcedureCode   ::= INTEGER (0..255)

ProcedureID     ::= SEQUENCE {
    procedureCode  INTEGER (0..255),

```

```

}
  ddMode                ENUMERATED { tdd, fdd, common }
}

ProtocolExtensionID ::= INTEGER (0..65535)

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

TransactionID        ::= CHOICE {
  shortTransActionId  INTEGER (0..127),
  longTransActionId   INTEGER (0..32767)
}

TriggeringMessage    ::= ENUMERATED { initiating-message, successful-outcome, unsuccessful-outcome, outcome }

END

```

9.3.6 NBAP Extension Definitions

```

-- *****
--
-- Container definitions
--
-- *****

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

BEGIN

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

IMPORTS
  Criticality,
  Presence,
  PrivateIE-ID,
  ProtocolExtensionID,
  ProtocolIE-ID
FROM NBAP-CommonDataTypes

  maxProtocolExtensions,
  maxPrivateIEs,
  maxProtocolIEs
FROM NBAP-Constants;

-- *****
--
-- Class Definition for Protocol IEs
--
-- *****

```

```

NBAP-PROTOCOL-IES ::= CLASS {
    &id      ProtocolIE-ID          UNIQUE,
    &criticality  Criticality,
    &Value,
    &presence    Presence
}
WITH SYNTAX {
    ID      &id
    CRITICALITY &criticality
    TYPE    &Value
    PRESENCE &presence
}

-- *****
--
-- Class Definition for Protocol IEs
--
-- *****

NBAP-PROTOCOL-IES-PAIR ::= CLASS {
    &id      ProtocolIE-ID          UNIQUE,
    &firstCriticality  Criticality,
    &FirstValue,
    &secondCriticality  Criticality,
    &SecondValue,
    &presence    Presence
}
WITH SYNTAX {
    ID      &id
    FIRST CRITICALITY &firstCriticality
    FIRST TYPE    &FirstValue
    SECOND CRITICALITY &secondCriticality
    SECOND TYPE    &SecondValue
    PRESENCE      &presence
}

-- *****
--
-- Class Definition for Protocol Extensions
--
-- *****

NBAP-PROTOCOL-EXTENSION ::= CLASS {
    &id      ProtocolExtensionID    UNIQUE,
    &criticality  Criticality,
    &Extension,
    &presence    Presence
}
WITH SYNTAX {
    ID      &id
    CRITICALITY &criticality
    EXTENSION &Extension
    PRESENCE &presence
}

```

```

}

-- *****
--
-- Class Definition for Private IEs
--
-- *****

NBAP-PRIVATE-IES ::= CLASS {
    &id      PrivateIE-ID,
    &criticality  Criticality,
    &Value,
    &presence   Presence
}
WITH SYNTAX {
    ID      &id
    CRITICALITY &criticality
    TYPE    &Value
    PRESENCE &presence
}

-- *****
--
-- Container for Protocol IEs
--
-- *****

ProtocolIE-Container {NBAP-PROTOCOL-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-Field {{IEsSetParam}}

ProtocolIE-Field {NBAP-PROTOCOL-IES : IEsSetParam} ::= SEQUENCE {
    id      NBAP-PROTOCOL-IES.&id      ({IEsSetParam}),
    criticality  NBAP-PROTOCOL-IES.&criticality  ({IEsSetParam}{@id}),
    value      NBAP-PROTOCOL-IES.&Value      ({IEsSetParam}{@id})
}

-- *****
--
-- Container for Protocol IE Pairs
--
-- *****

ProtocolIE-ContainerPair {NBAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
    SEQUENCE (SIZE (0..maxProtocolIEs)) OF
    ProtocolIE-FieldPair {{IEsSetParam}}

ProtocolIE-FieldPair {NBAP-PROTOCOL-IES-PAIR : IEsSetParam} ::= SEQUENCE {
    id      NBAP-PROTOCOL-IES-PAIR.&id      ({IEsSetParam}),
    firstCriticality  NBAP-PROTOCOL-IES-PAIR.&firstCriticality  ({IEsSetParam}{@id}),
    firstValue      NBAP-PROTOCOL-IES-PAIR.&FirstValue  ({IEsSetParam}{@id}),
    secondCriticality  NBAP-PROTOCOL-IES-PAIR.&secondCriticality  ({IEsSetParam}{@id}),
    secondValue      NBAP-PROTOCOL-IES-PAIR.&SecondValue  ({IEsSetParam}{@id})
}

```

```

-- *****
--
-- Container Lists for Protocol IE Containers
--
-- *****

ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, NBAP-PROTOCOL-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
        ProtocolIE-Container {{IEsSetParam}}

ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, NBAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
    SEQUENCE (SIZE (lowerBound..upperBound)) OF
        ProtocolIE-ContainerPair {{IEsSetParam}}

-- *****
--
-- Container for Protocol Extensions
--
-- *****

ProtocolExtensionContainer {NBAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
    SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
        ProtocolExtensionField {{ExtensionSetParam}}

ProtocolExtensionField {NBAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {
    id          NBAP-PROTOCOL-EXTENSION.&id ({ExtensionSetParam}),
    criticality NBAP-PROTOCOL-EXTENSION.&criticality    ({ExtensionSetParam}@id)},
    extensionValue NBAP-PROTOCOL-EXTENSION.&Extension    ({ExtensionSetParam}@id)}
}

-- *****
--
-- Container for Private IEs
--
-- *****

PrivateIE-Container {NBAP-PRIVATE-IES : IEsSetParam} ::=
    SEQUENCE (SIZE (1..maxPrivateIEs)) OF
        PrivateIE-Field {{IEsSetParam}}

PrivateIE-Field {NBAP-PRIVATE-IES : IEsSetParam} ::= SEQUENCE {
    id          NBAP-PRIVATE-IES.&id
    ({IEsSetParam}),
    criticality NBAP-PRIVATE-IES.&criticality
    ({IEsSetParam}@id)},
    value      NBAP-PRIVATE-IES.&Value
    ({IEsSetParam}@id)}
}

END

```

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
maxNrOfTFCs                      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
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
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
maxNrOfTFClGroups       INTEGER ::= 10
maxNrOfTFClCombs        INTEGER ::= 10
maxNrOfTFCl2Combs       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
 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

INTEGER ::= 38
 INTEGER ::= 39
 INTEGER ::= 40
 INTEGER ::= 41
 INTEGER ::= 42
 INTEGER ::= 43
 INTEGER ::= 44
 INTEGER ::= 45
 INTEGER ::= 46
 INTEGER ::= 47
 INTEGER ::= 48
 INTEGER ::= 49
 INTEGER ::= 50
 INTEGER ::= 51
 INTEGER ::= 52
 INTEGER ::= 53
 INTEGER ::= 54
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 INTEGER ::= 77
 INTEGER ::= 78
 INTEGER ::= 79
 INTEGER ::= 80
 INTEGER ::= 81
 INTEGER ::= 82
 INTEGER ::= 83
 INTEGER ::= 84
 INTEGER ::= 85
 INTEGER ::= 86
 INTEGER ::= 87
 INTEGER ::= 88
 INTEGER ::= 89
 INTEGER ::= 90
 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	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
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

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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

END

350

INTEGER ::= 308
INTEGER ::= 309
INTEGER ::= 310
INTEGER ::= 311
INTEGER ::= 312
INTEGER ::= 313
INTEGER ::= 314

Error! No text of specified style in document.

9.4 Message Transfer Syntax

NBAP shall use the ASN.1 Packed Encoding Rules (PER) Aligned Variant as transfer syntax as specified in ref. [11].

[Editor's note: The dating of reference [11] needs to be verified. It has been included from the ITU-T list of recommendations in force. The dating of the reference is FFS.]

9.5 Timers

10 Handling of unknown, unforeseen and erroneous protocol data

10.1 General

Protocol Error cases can be divided into three classes:

- Transfer Syntax Error
- Abstract Syntax Error
- Logical Error

Protocol errors can occur in the following functions within a receiving node:

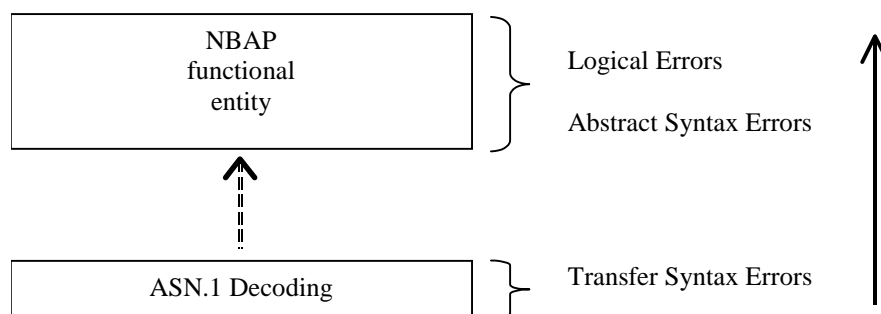


Figure 38: Protocol Errors in NBAP.

10.2 Transfer Syntax Error

A Transfer Syntax Error occurs when the receiver is not able to decode the received physical message. Transfer syntax errors are always detected in the process of ASN.1 decoding. If a Transfer Syntax Error occurs, the receiver should initiate Error Indication procedure with appropriate cause value for the Transfer Syntax protocol error.

Examples for Transfer Syntax Errors are:

- Violation of value ranges in ASN.1 definition of messages. e.g.: If an IE has a defined value range of 0 to 10 (ASN.1: INTEGER (0..10)), and 12 will be received, then this will be treated as a transfer syntax error.
- Violation in list element constraints. e.g.: If a list is defined as containing 1 to 10 elements, and 12 elements will be received, then this case will be handled as a transfer syntax error.
- Missing mandatory elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).
- Wrong order of elements in ASN.1 SEQUENCE definitions (as sent by the originator of the message).

10.3 Abstract Syntax Error

An Abstract Syntax Error occurs when the receiving functional NBAP entity receives IEs or IE groups that cannot be understood. The abstract syntax error also appears 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)

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 10.3.3.

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 Handling of the Criticality Information at Reception

10.3.3.1 Procedure Code

The receiving node shall treat the different types of 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.

10.3.3.2 IEs other than the Procedure Code

The receiving node shall treat the different types of 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.

10.4 Logical Error

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality of the IEs/IE groups containing the erroneous values.

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a failure message, the failure message shall be sent with an appropriate cause value.

Typical cause values are:

- Protocol Causes:

1. Semantic Error
2. Message not compatible with receiver state

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message, the ERROR INDICATION procedure shall be initiated with an appropriate cause value.

Where the logical error exists in a response message of a class 1 procedure, local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the ERROR INDICATION procedure shall be initiated with an appropriate cause value.

Annex A (informative): Change history

Change history					
TSG RAN#	Version	CR	Tdoc RAN	New Version	Subject/Comment
RAN_06	-	-	RP-99764	3.0.0	Approved at TSG RAN #6 and placed under Change Control
RAN_07	3.0.0	-	-	3.1.0	Approved at TSG RAN #7

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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	158	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 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:** May 2000

Subject: Cause values on msg and RL level

Work item: _____

Category:	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"/>	Release:	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: Already during some time, there is an open issue listed regarding this item.

Currently, only the RL_RECONFIGURATION_FAILURE contains both a general and a RL specific cause. Having causes on two levels seems to make sense:

- if there is a general problem e.g. at transport channel level, a general cause can be used;
- if there is an RL specific problem, e.g. resource situation, then an RL-specific cause value can be used.

Therefore this CR proposes to extend this approach to the RL_SETUP_FAILURE and RL_ADDITION_FAILURE. For the last message, introducing this approach might not be so obvious since it is expected that in most cases there will be an RL specific cause. However, since a general cause might still be useful in certain cases (e.g. if a node has a large resource problem) and for consistency reasons, this approach is also proposed for the RL_ADDITION_FAILURE.

In all cases it is proposed to use a CHOICE: either the general cause is used and then all RL's have failed, or RL-specific causes are included and then only the RL's for which a cause value is included have failed.

In addition, an error is corrected regarding the mandatory inclusion of the *Successful RL Information response* IE group which should be optional.

Compared to TDOC R3-001120/CR086r1 only the TDD related messages have been added.

Clauses affected: 9.1.37; 9.1.40; 9.1.43; 9.1.67; 9.3.3; 9.3.7

Other specs affected:

Other 3G core specifications
Other GSM core specifications
MS test specifications
BSS test specifications
O&M specifications

→ List of CRs:
→ List of CRs:
→ List of CRs:
→ List of CRs:
→ List of CRs:

Other comments:

--



help.doc

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

9.1.37 RADIO LINK SETUP FAILURE

9.1.37.1 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	ignore
Transaction ID	M				–	
Node B Communication Context ID	M				YES	ignore
Communication Control Port ID	O				YES	ignore
<i>CHOICE cause level</i>						
<i>>General</i>					YES	ignore
<i>>> Cause</i>	M					
<i>>RL specific</i>					YES	ignore
<i>>>Unsuccessful RL Information Response</i>		1 to <maxnoo fRLs>			EACH	Ignore
<i>>>>RL ID</i>	M				–	
<i>>>>Cause</i>	M				–	
<i>>>Successful RL Information Response</i>		0 to <maxnoo fRLs-1>			EACH	ignore
<i>>>>RL ID</i>	M				–	
<i>>>>RL Set ID</i>	M				–	
<i>>>>UL interference level</i>	M				–	
<i>>>>Diversity Indication</i>	C-NotFirstRL				–	
<i>>>>CHOICE diversity Indication</i>					–	
<i>>>>>Combining</i>					YES	ignore
<i>>>>>RL ID</i>	M			Reference RL ID for the combining	–	
<i>>>>>Non Combining or IE not present</i>					YES	ignore
<i>>>>>>DCH Information Response</i>		0 to <maxnoo fDCHs>		Only one DCH per set of coordinated DCH shall be included	–	
<i>>>>>>>DCH ID</i>	M				–	
<i>>>>>>>Binding ID</i>	M				–	
<i>>>>>>>Transport Layer Address</i>	M				–	
<i>>>>>DSCH Information Response</i>		0 to <Numof DSCH>			GLOBAL	Ignore
<i>>>>>>DSCH ID</i>	M				–	
<i>>>>>>Binding ID</i>	M				–	
<i>>>>>>Transport Layer Address</i>	M				–	
<i>>>>>SSDT Support Indicator</i>	M				–	

Criticality diagnostics	O				YES	ignore
-------------------------	---	--	--	--	-----	--------

Condition	Explanation
Success	This IE is present if at least one of the radio links has been successfully set up.
NotFirstRL	This IE is present only if the RL is not the first one in the RL Information.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of set DCH per UE.
MaxnoofDSCHs	Maximum number of DSCH for one UE

9.1.37.2 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	ignore
Transaction ID	M				–	
<u>CHOICE cause level</u>						
<u>>General</u>					<u>YES</u>	<u>ignore</u>
<u>>> Cause</u>	<u>M</u>					
<u>>RL specific</u>					<u>YES</u>	<u>ignore</u>
<u>>>Unsuccessful RL Information Response</u>		1			YES	ignore
<u>>>>RL ID</u>	M				–	
<u>>>>Cause</u>	M				–	
Criticality diagnostics	O				YES	ignore

9.1.40 RADIO LINK ADDITION FAILURE

9.1.40.1 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	ignore
Transaction ID	M				–	
<i>CHOICE cause level</i>						
<i>>General</i>					YES	ignore
<i>>> Cause</i>	M					
<i>>RL specific</i>					YES	ignore
<i>>>Unsuccessful RL Information Response</i>		1..<maxnoofRL-1>			EACH	ignore
<i>>>>RL ID</i>	M				–	
<i>>>>Cause</i>	M				–	
<i>>>Successful RL Information Response</i>		04..<maxnoofRL-2>			EACH	ignore
<i>>>>RL ID</i>	M				–	
<i>>>>RL Set ID</i>	M				–	
<i>>>>UL interference level</i>	M				–	
<i>>>>Diversity Indication</i>	M				–	
<i>>>>CHOICE diversity indication</i>						
<i>>>>>Combining</i>					YES	ignore
<i>>>>>RL ID</i>	M			Reference RL	–	
<i>>>>>Non combining</i>					YES	ignore
<i>>>>>DCH Information Response</i>		1..<maxnoofDCHs>			–	
<i>>>>>>DCH ID</i>	M				–	
<i>>>>>>Binding ID</i>	M				–	
<i>>>>>>Transport Layer Address</i>	M				–	
<i>>>>>SSDT support indicator</i>	M				–	
Criticality diagnostics	O				YES	ignore

Range bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs per UE
<i>MaxnoofRL</i>	Maximum number of RLs for one UE

9.1.40.2 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	ignore
Transaction ID	M				–	
<i>CHOICE cause level</i>						
<i>>General</i>					<u>YES</u>	<u>ignore</u>
<i>>> Cause</i>	<u>M</u>					
<i>>RL specific</i>					<u>YES</u>	<u>ignore</u>
<i>>>>Unsuccessful RL Information Response</i>		1			YES	ignore
<i>>>>RL ID</i>	M				–	
<i>>>>Cause</i>	M				–	
Criticality diagnostics	O				YES	ignore

9.1.43 RADIO LINK RECONFIGURATION FAILURE

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				–	
<i>CHOICE cause level</i>						
<i>>General</i>					YES	ignore
<i>>>Cause</i>	M				YES	ignore
<i>>RL specific</i>					YES	ignore
<i>>>RLs Causing Reconfiguration Failure</i>		<i>0..<max noofRLs ></i>			EACH	Ignore
<i>>>>RL ID</i>	M				–	
<i>>>>Cause</i>	M				–	
Criticality diagnostics	O				YES	ignore

Range Bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of RLs for a UE.

9.1.67 PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				-	
Message Type	M				YES	reject
Transaction ID	M				-	
<i>CHOICE cause level</i>						
<i>>General</i>					<u>YES</u>	<u>ignore</u>
<i>>>Cause</i>	<u>M</u>					
<i>>Set specific</i>					<u>YES</u>	<u>ignore</u>
<i>>>Unsuccessful DL Shared channel set</i>		<u>0..<maxnoof PDSCHSets</u> <u>></u>			<u>EACH</u>	<u>ignore</u>
<i>>>>PDSCH Set ID</i>	<u>M</u>				<u>:</u>	
<i>>>>Cause</i>	M				<u>YES_</u>	<u>ignore</u>
<i>>>Unsuccessful UL Shared channel set</i>		<u>0..<maxnoof PUSCHSets</u> <u>></u>			<u>EACH</u>	<u>ignore</u>
<i>>>>PUSCH Set ID</i>	<u>M</u>				<u>:</u>	
<i>>>>Cause</i>	<u>M</u>				<u>:</u>	
Criticality diagnostics	O				YES	ignore

<u>Range bound</u>	<u>Explanation</u>
<u>Maxnoof PDSCH Sets</u>	<u>Maximum number of PDSCH Sets in a cell.</u>
<u>Maxnoof PUSCH Sets</u>	<u>Maximum number of PUSCH Sets in a cell.</u>

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-CauseLevel-PSCH-ReconfFailureTDD,
id-CauseLevel-RL-AdditionFailureFDD,
id-CauseLevel-RL-AdditionFailureTDD,
id-CauseLevel-RL-ReconfFailure,
id-CauseLevel-RL-SetupFailureFDD,
id-CauseLevel-RL-SetupFailureTDD,
 id-CCP-InformationItem-AuditRsp,
 id-CCP-InformationList-AuditRsp,

..... .

.....
 id-FACH-ParametersListIE-CTCH-SetupRqstFDD,
 id-FACH-ParametersListIE-CTCH-SetupRqstTDD,
id-GeneralCauseItem-PSCH-ReconfFailureTDD,
id-GeneralCauseItem-RL-AdditionFailureFDD,
id-GeneralCauseItem-RL-AdditionFailureTDD,
id-GeneralCauseItem-RL-ReconfFailure,
id-GeneralCauseItem-RL-SetupFailureFDD,
id-GeneralCauseItem-RL-SetupFailureTDD,
 id-IndicationType-ResourceStatusInd,
 id-Local-Cell-ID,
 id-Local-Cell-InformationItem-AuditRsp,

..... .

..... .
 id-RLItem-DM-Rsp,
 id-RLItem-RL-FailureInd,
 id-RLItem-RL-RestoreInd,
~~id-RL-ReconfigurationFailureItem-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-RLSpecificCauseItem-RL-AdditionFailureFDD,
id-RLSpecificCauseItem-RL-AdditionFailureTDD,
id-RLSpecificCauseItem-RL-ReconfFailure,
id-RLSpecificCauseItem-RL-SetupFailureFDD,
id-RLSpecificCauseItem-RL-SetupFailureTDD,
~~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-SetSpecificCauseItem-PSCH-ReconfFailureTDD,
id-SFN,
id-ShutdownTimer,
.....
.....
id-UL-DPCH-Information-RL-ReconfPrepFDD,
id-UL-DPCH-Information-RL-ReconfRqstFDD,
id-UL-DPCH-Information-RL-SetupRqstFDD,
id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD,
id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD,
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD,
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD,
id-Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD,
.....

```
-- *****
--
-- RADIO LINK SETUP FAILURE FDD
--
-- *****
```

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

```
RadioLinkSetupFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          CRITICALITY ignore TYPE CRNC-CommunicationContextID
      PRESENCE mandatory }|
    { ID id-NodeB-CommunicationContextID        CRITICALITY ignore TYPE NodeB-CommunicationContextID
      PRESENCE optional }|
    { ID id-CommunicationControlPortID          CRITICALITY ignore TYPE CommunicationControlPortID
      PRESENCE mandatory }|
    { ID id-CauseLevel-RL-SetupFailureFDD      CRITICALITY ignore TYPE CauseLevel-RL-SetupFailureFDD
      PRESENCE mandatory }|
    { ID id-Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD CRITICALITY ignore TYPE Unsuccessful-RL-InformationRespList-
      RL-SetupFailureFDD PRESENCE mandatory }|
    { ID id-Successful-RL-InformationRespList-RL-SetupFailureFDD CRITICALITY ignore TYPE Successful-RL-InformationRespList-
      RL-SetupFailureFDD PRESENCE optional }|
    { ID id-CriticalityDiagnostics              CRITICALITY ignore TYPE CriticalityDiagnostics
      PRESENCE optional },
    ...
}
```

```
RadioLinkSetupFailureFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
CauseLevel-RL-SetupFailureFDD ::= CHOICE {
    generalCause          GeneralCauseList-RL-SetupFailureFDD,
    rLSpecificCause      RLSpecificCauseList-RL-SetupFailureFDD,
    ...
}
```

```
GeneralCauseList-RL-SetupFailureFDD ::= ProtocolIE-Container {{ GeneralCauseIE-RL-SetupFailureFDD }}
```

```
GeneralCauseIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-GeneralCauseItem-RL-SetupFailureFDD          CRITICALITY ignore
      TYPE GeneralCauseItem-RL-SetupFailureFDD          PRESENCE mandatory },
    ...
}
```

```
GeneralCauseItem-RL-SetupFailureFDD ::= SEQUENCE {
    cause          Cause,
    iE-Extensions ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs } } OPTIONAL,
    ...
}
```

```

}
GeneralCauseItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
RLSpecificCauseList-RL-SetupFailureFDD ::= ProtocolIE-Container {{ RLSpecificCauseIE-RL-SetupFailureFDD }}
RLSpecificCauseIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
  { ID      id-RLSpecificCauseItem-RL-SetupFailureFDD      CRITICALITY      ignore      TYPE      RLSpecificCauseItem-RL-SetupFailureFDD
    PRESENCE      mandatory },
  ...
}
RLSpecificCauseItem-RL-SetupFailureFDD ::= SEQUENCE {
  unsuccessful-RL-InformationRespList-RL-SetupFailureFDD      Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD,
  successful-RL-InformationRespList-RL-SetupFailureFDD      Successful-RL-InformationRespList-RL-SetupFailureFDD OPTIONAL,
  iE-Extensions      ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs } } OPTIONAL,
  ...
}
RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
  { ID      id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD      CRITICALITY      ignore      TYPE      Unsuccessful-RL-InformationRespItem-RL-
SetupFailureFDD      PRESENCE      mandatory },
  ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
  rL-ID      RL-ID,
  cause      Cause,
  iE-Extensions      ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs } }
  OPTIONAL,
  ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Successful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1.. maxNrOfRLs)) OF ProtocolIE-Container {{ Successful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}

Successful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
  { ID      id-Successful-RL-InformationRespItem-RL-SetupFailureFDD      CRITICALITY      ignore      TYPE      Successful-RL-InformationRespItem-RL-
SetupFailureFDD      PRESENCE      mandatory },

```

```

}
...
}

Successful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                RL-ID,
    rL-Set-ID            RL-Set-ID,
    ul-InterferenceLevel UL-InterferenceLevel,
    diversityIndication DiversityIndication-RL-SetupFailureFDD OPTIONAL,
    -- This IE is present if at least one of the RL is not the first one in the RL information
    dSCH-InformationResponseList DSCH-InformationRespList-RL-SetupFailureFDD OPTIONAL,
    sSDT-SupportIndicator SSdT-SupportIndicator,
    iE-Extensions        ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs } }
    OPTIONAL,
    ...
}

Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
    combining                Combining-RL-SetupFailureFDD,
    nonCombiningOrIENotPrsent NonCombiningOrIENotPrsent-RL-SetupFailureFDD,
    ...
}

Combining-RL-SetupFailureFDD ::= ProtocolIE-Container {{ CombiningIE-RL-SetupFailureFDD }}

CombiningIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-SetupFailureFDD CRITICALITY ignore TYPE CombiningItem-RL-SetupFailureFDD PRESENCE mandatory },
    ...
}

CombiningItem-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                RL-ID,
    iE-Extensions        ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs } } OPTIONAL,
    ...
}

CombiningItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombiningOrIENotPrsent-RL-SetupFailureFDD ::= ProtocolIE-Container {{ NonCombiningOrIENotPrsentIE-RL-SetupFailureFDD }}

NonCombiningOrIENotPrsentIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD CRITICALITY ignore TYPE NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD PRESENCE mandatory },
    ...
}

NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD ::= SEQUENCE {

```



```

    dCH-InformationResponseList          DCH-InformationRespList-RL-SetupFailureFDD  OPTIONAL,
    iE-Extensions                        ProtocolExtensionContainer { { NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD-ExtIEs } }
    OPTIONAL,
    ...
}

NonCombiningOrIENotPrsentItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1.. maxNrOfDCHs)) OF DCH-InformationRespItem-RL-SetupFailureFDD

DCH-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-ID                               DCH-ID,
    bindingID                            BindingID,
    transportLayerAddress                TransportLayerAddress,
    iE-Extensions                        ProtocolExtensionContainer { { DCH-InformationRespItem-RL-SetupFailureFDD-ExtIEs } }    OPTIONAL,
    ...
}

DCH-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationRespList-RL-SetupFailureFDD ::= ProtocolIE-Container {{ DSCH-InformationRespListIEs-RL-SetupFailureFDD }}

DSCH-InformationRespListIEs-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationRespListIE-RL-SetupFailureFDD  CRITICALITY ignore  TYPE DSCH-InformationRespListIE-RL-SetupFailureFDD  PRESENCE
mandatory },
    ...
}

DSCH-InformationRespListIE-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationRespItem-RL-SetupFailureFDD

DSCH-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
    dSCH-ID                               DSCH-ID,
    bindingID                            BindingID,
    transportLayerAddress                TransportLayerAddress,
    iE-Extensions                        ProtocolExtensionContainer { { DSCH-InformationRespItem-RL-SetupFailureFDD-ExtIEs } }    OPTIONAL,
    ...
}

DSCH-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK SETUP FAILURE TDD
--
-- *****

```

```

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

RadioLinkSetupFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID id-CRNC-CommunicationContextID          CRITICALITY ignore          TYPE CRNC-CommunicationContextID
    PRESENCE mandatory }|
    { ID id-CauseLevel-RL-SetupFailureTDD          CRITICALITY ignore          TYPE CauseLevel-RL-SetupFailureTDD
    PRESENCE mandatory }|
    { ID id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD CRITICALITY ignore          TYPE Unsuccessful-RL-InformationResp-RL-
SetupFailureTDD PRESENCE mandatory }|
    { ID id-CriticalityDiagnostics          CRITICALITY ignore          TYPE CriticalityDiagnostics
    PRESENCE optional },
    ...
}

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

CauseLevel-RL-SetupFailureTDD ::= CHOICE {
    generalCause          GeneralCauseList-RL-SetupFailureTDD,
    rLSpecificCause      RLSpecificCauseList-RL-SetupFailureTDD,
    ...
}

GeneralCauseList-RL-SetupFailureTDD ::= ProtocolIE-Container {{ GeneralCauseIE-RL-SetupFailureTDD }}

GeneralCauseIE-RL-SetupFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-GeneralCauseItem-RL-SetupFailureTDD          CRITICALITY ignore          TYPE GeneralCauseItem-RL-SetupFailureTDD          PRESENCE mandatory },
    ...
}

GeneralCauseItem-RL-SetupFailureTDD ::= SEQUENCE {
    cause          Cause,
    iE-Extensions ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs } }  OPTIONAL,
    ...
}

GeneralCauseItem-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-SetupFailureTDD ::= ProtocolIE-Container {{ RLSpecificCauseIE-RL-SetupFailureTDD }}

RLSpecificCauseIE-RL-SetupFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-RLSpecificCauseItem-RL-SetupFailureTDD          CRITICALITY ignore          TYPE RLSpecificCauseItem-RL-SetupFailureTDD          PRESENCE mandatory },
    ...
}

```

```

RLSpecificCauseItem-RL-SetupFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD,
    iE-Extensions ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD} }

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD CRITICALITY ignore TYPE Unsuccessful-RL-InformationResp-RL-
    SetupFailureTDD PRESENCE mandatory ,
    ...
}

Unsuccessful-RL-InformationResp-RL-SetupFailureTDD ::= SEQUENCE {
    rL-ID RL-ID,
    cause Cause,
    iE-Extensions ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs} }
    OPTIONAL,
    ...
}

Unsuccessful-RL-InformationResp-RL-SetupFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

-- *****
--
-- RADIO LINK ADDITION FAILURE FDD
--
-- *****

```

```

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

```

```

RadioLinkAdditionFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
  { ID id-CRNC-CommunicationContextID          CRITICALITY ignore TYPE CRNC-CommunicationContextID
    PRESENCE mandatory }|
  { ID id-CauseLevel-RL-AdditionFailureFDD      CRITICALITY ignore TYPE CauseLevel-RL-AdditionFailureFDD
    PRESENCE mandatory }|
  { ID id-Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD CRITICALITY ignore TYPE Unsuccessful-RL-InformationRespList-RL-
  AdditionFailureFDD PRESENCE mandatory }|
  { ID id-Successful-RL-InformationRespList-RL-AdditionFailureFDD CRITICALITY ignore TYPE Successful-RL-InformationRespList-
  RL-AdditionFailureFDD PRESENCE mandatory }|
  { ID id-CriticalityDiagnostics          CRITICALITY ignore TYPE CriticalityDiagnostics
    PRESENCE optional },
  ...
}

```

```

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

```

```

CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
  generalCause          GeneralCauseList-RL-AdditionFailureFDD,
  rLSpecificCause       RLSpecificCauseList-RL-AdditionFailureFDD,
  ...
}

```

```

GeneralCauseList-RL-AdditionFailureFDD ::= ProtocolIE-Container {{ GeneralCauseIE-RL-AdditionFailureFDD }}

```

```

GeneralCauseIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
  { ID id-GeneralCauseItem-RL-AdditionFailureFDD          CRITICALITY ignore
    TYPE GeneralCauseItem-RL-AdditionFailureFDD          PRESENCE mandatory },
  ...
}

```

```

GeneralCauseItem-RL-AdditionFailureFDD ::= SEQUENCE {
  cause          Cause,
  iE-Extensions ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs } }  OPTIONAL,
  ...
}

```

```

GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

}
RLSpecificCauseList-RL-AdditionFailureFDD ::= ProtocolIE-Container {{ RLSpecificCauseIE-RL-AdditionFailureFDD }}

RLSpecificCauseIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
  { ID      id-RLSpecificCauseItem-RL-AdditionFailureFDD      CRITICALITY      ignore
    TYPE      RLSpecificCauseItem-RL-AdditionFailureFDD      PRESENCE      mandatory},
  ...
}

RLSpecificCauseItem-RL-AdditionFailureFDD ::= SEQUENCE {
  unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD,
  successful-RL-InformationRespList-RL-AdditionFailureFDD OPTIONAL,
  iE-Extensions      ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs } } OPTIONAL,
  ...
}

RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
  { ID      id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD      CRITICALITY      ignore      TYPE      Unsuccessful-RL-InformationRespItem-
RL-AdditionFailureFDD      PRESENCE      mandatory},
  ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
  rL-ID      RL-ID,
  cause      Cause,
  iE-Extensions      ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs } }
  OPTIONAL,
  ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Successful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Container {{ Successful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}

Successful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
  { ID      id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD      CRITICALITY      ignore      TYPE      Successful-RL-InformationRespItem-RL-
AdditionFailureFDD      PRESENCE      mandatory},
  ...
}

Successful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {

```

```

    rL-ID                               RL-ID,
    rL-Set-ID                            RL-Set-ID,
    ul-InterferenceLevel                 UL-InterferenceLevel,
    diversityIndication                 DiversityIndication-RL-AdditionFailureFDD,
    sSDT-SupportIndicator                SSDT-SupportIndicator,
    iE-Extensions                        ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs } }
    OPTIONAL,
    ...
}

Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
    combining                            Combining-RL-AdditionFailureFDD,
    non-Combining                        Non-Combining-RL-AdditionFailureFDD,
    ...
}

Combining-RL-AdditionFailureFDD ::= ProtocolIE-Container {{ CombiningIE-RL-AdditionFailureFDD }}

CombiningIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-AdditionFailureFDD    CRITICALITY ignore    TYPE CombiningItem-RL-AdditionFailureFDD    PRESENCE mandatory },
    ...
}

CombiningItem-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    iE-Extensions                        ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs } }    OPTIONAL,
    ...
}

CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Non-Combining-RL-AdditionFailureFDD ::= ProtocolIE-Container {{ Non-CombiningIE-RL-AdditionFailureFDD }}

Non-CombiningIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-Non-CombiningItem-RL-AdditionFailureFDD    CRITICALITY ignore    TYPE Non-CombiningItem-RL-AdditionFailureFDD    PRESENCE mandatory },
    ...
}

Non-CombiningItem-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-InformationResponseList          DCH-InformationResponseList-RL-AdditionFailureFDD,
    iE-Extensions                        ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs } }    OPTIONAL,
    ...
}

Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

}

DCH-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-AdditionFailureFDD

DCH-InformationResponseItem-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-ID                DCH-ID,
    bindingID             BindingID,
    transportLayerAddress TransportLayerAddress,
    iE-Extensions        ProtocolExtensionContainer { { DCH-InformationResponseList-RL-AdditionFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

DCH-InformationResponseList-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *****
--
-- RADIO LINK ADDITION FAILURE TDD
--
-- *****

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

RadioLinkAdditionFailureTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID      id-CRNC-CommunicationContextID          CRITICALITY  ignore  TYPE  CRNC-CommunicationContextID
      PRESENCE mandatory }|
    { ID      id-CauseLevel-RL-AdditionFailureTDD     CRITICALITY  ignore  TYPE  CauseLevel-RL-AdditionFailureTDD
      PRESENCE mandatory }|
    { ID      id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD CRITICALITY  ignore  TYPE  Unsuccessful-RL-InformationResp-RL-
    AdditionFailureTDD PRESENCE mandatory }|
    { ID      id-CriticalityDiagnostics              CRITICALITY  ignore  TYPE  CriticalityDiagnostics
      PRESENCE optional },
    ...
}

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

CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
    generalCause      GeneralCauseList-RL-AdditionFailureTDD,
    rLSpecificCause   RLSpecificCauseList-RL-AdditionFailureTDD,
    ...
}

```

```

GeneralCauseList-RL-AdditionFailureTDD ::= ProtocolIE-Container {{ GeneralCauseIE-RL-AdditionFailureTDD }}

GeneralCauseIE-RL-AdditionFailureTDD NBAP-PROTOCOL-IES ::= {
  { ID id-GeneralCauseItem-RL-AdditionFailureTDD      CRITICALITY ignore  TYPE GeneralCauseItem-RL-AdditionFailureTDD      PRESENCE mandatory },
  ...
}

GeneralCauseItem-RL-AdditionFailureTDD ::= SEQUENCE {
  cause          Cause,
  iE-Extensions ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs } } OPTIONAL,
  ...
}

GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RLSpecificCauseList-RL-AdditionFailureTDD ::= ProtocolIE-Container {{ RLSpecificCauseIE-RL-AdditionFailureTDD }}

RLSpecificCauseIE-RL-AdditionFailureTDD NBAP-PROTOCOL-IES ::= {
  { ID id-RLSpecificCauseItem-RL-AdditionFailureTDD  CRITICALITY ignore  TYPE RLSpecificCauseItem-RL-AdditionFailureTDD  PRESENCE mandatory
  },
  ...
}

RLSpecificCauseItem-RL-AdditionFailureTDD ::= SEQUENCE {
  unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
  iE-Extensions          ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs } } OPTIONAL,
  ...
}

RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD ::= ProtocolIE-Container { {Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD} }

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD NBAP-PROTOCOL-IES ::= {
  { ID id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD  CRITICALITY ignore  TYPE Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD
  PRESENCE mandatory },
  ...
}

Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD ::= SEQUENCE {
  rL-ID          RL-ID,
  cause          Cause,
  iE-Extensions ProtocolExtensionContainer { { Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-ExtIEs } } OPTIONAL,
  ...
}

```



```
Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD-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          CRITICALITY ignore          TYPE CRNC-CommunicationContextID
  PRESENCE mandatory } |
  { ID id-Cause                                CRITICALITY ignore          TYPE Cause                                PRESENCE
  mandatory } |
  { ID id-CauseLevelRL-ReconfigurationFailureList-RL-ReconfFailure CRITICALITY ignore          TYPE CauseLevelRL-ReconfigurationFailureList-RL-
  ReconfFailure PRESENCE optionalmandatory } |
  { ID id-CriticalityDiagnostics              CRITICALITY ignore          TYPE CriticalityDiagnostics
  PRESENCE optional },
  ...
}
```

```
RadioLinkReconfigurationFailure-Extensions NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
CauseLevel-RL-ReconfFailure ::= CHOICE {
  generalCause          GeneralCauseList-RL-ReconfFailure,
  rLSpecificCause      RLSpecificCauseList-RL-ReconfFailure,
  ...
}
```

```
GeneralCauseList-RL-ReconfFailure ::= ProtocolIE-Container {{ GeneralCauseIE-RL-ReconfFailure }}
```

```
GeneralCauseIE-RL-ReconfFailure NBAP-PROTOCOL-IES ::= {
  { ID id-GeneralCauseItem-RL-ReconfFailure          CRITICALITY ignore
  TYPE GeneralCauseItem-RL-ReconfFailure          PRESENCE mandatory },
  ...
}
```

```
GeneralCauseItem-RL-ReconfFailure ::= SEQUENCE {
  cause          Cause,
  iE-Extensions ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs } }  OPTIONAL,
  ...
}
```

```
GeneralCauseItem-RL-ReconfFailure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
RLSpecificCause-ReconfigurationFailureList-RL-ReconfFailure ::= ProtocolIE-Container {{ RLSpecificCauseIE-RL-ReconfFailure }}
```

```

RLSpecificCauseIE-RL-ReconfFailure NBAP-PROTOCOL-IES ::= {
  { ID id-RLSpecificCauseItem-RL-ReconfFailure          CRITICALITY ignore TYPE RLSpecificCauseItem-RL-ReconfFailure
    PRESENCE mandatory },
  ...
}

RLSpecificCauseItem-RL-ReconfFailure ::= SEQUENCE {
  rL-ReconfigurationFailureList-RL-ReconfFailure      RL-ReconfigurationFailureList-RL-ReconfFailure OPTIONAL,
  iE-Extensions                                       ProtocolExtensionContainer { { RLSpecificCauseItem-RL-ReconfFailure-ExtIEs } } OPTIONAL,
  ...
}

RLSpecificCauseItem-RL-ReconfFailure-ExtIEs 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 ::= {
  ...
}

```

```

-- *****
--
-- PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE TDD
--
-- *****

```

```

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

```

```

PhysicalSharedChannelReconfigurationFailureTDD-IEs NBAP-PROTOCOL-IES ::= {

    { ID id-Cause CRITICALITY ignore TYPE Cause PRESENCE mandatory },
    { ID id-CauseLevel-PSCH-ReconfFailureTDD CRITICALITY ignore TYPE CauseLevel-PSCH-ReconfFailureTDD PRESENCE mandatory },
    { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },
    ...
}


```

```

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

```

```

CauseLevel-PSCH-ReconfFailureTDD ::= CHOICE {

    generalCause      GeneralCauseList-PSCH-ReconfFailureTDD,
    setSpecificCause  SetSpecificCauseList-PSCH-ReconfFailureTDD,
    ...
}


```

```

GeneralCauseList-PSCH-ReconfFailureTDD ::= ProtocolIE-Container {{ GeneralCauseIE-PSCH-ReconfFailureTDD }}

```

```

GeneralCauseIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {

    { ID id-GeneralCauseItem-PSCH-ReconfFailureTDD CRITICALITY ignore TYPE GeneralCauseItem-PSCH-ReconfFailureTDD PRESENCE mandatory },
    ...
}


```

```

GeneralCauseItem-PSCH-ReconfFailureTDD ::= SEQUENCE {

    cause      Cause,
    iE-Extensions ProtocolExtensionContainer { { GeneralCauseItem-PSCH-ReconfFailureTDD-ExtIEs } }
    ...
}


```

```

GeneralCauseItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

SetSpecificCauseList-PSCH-ReconfFailureTDD ::= ProtocolIE-Container {{ SetSpecificCauseIE-PSCH-ReconfFailureTDD }}

```

```

SetSpecificCauseIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {

    { ID id-SetSpecificCauseItem-PSCH-ReconfFailureTDD CRITICALITY ignore TYPE SetSpecificCauseItem-PSCH-ReconfFailureTDD PRESENCE mandatory },
    ...
}


```

```

}
SetSpecificCauseItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
    unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD Unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD,
    unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD Unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD,
    iE-Extensions ProtocolExtensionContainer { { SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs } } OPTIONAL,
    ...
}

SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (1.. maxNrOfPDSCHSets)) OF ProtocolIE-Container {{ Unsuccessful-PDSCHSetItemIE-PSCH-ReconfFailureTDD }}

Unsuccessful-PDSCHSetItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD CRITICALITY ignore TYPE Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDDPRESENCE mandatory},
    ...
}

Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
    pDSCHSet-ID PDSCHSet-ID,
    cause Cause,
    iE-Extensions ProtocolExtensionContainer { {Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs} } OPTIONAL,
    ...
}

Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (1.. maxNrOfPUSCHSets)) OF ProtocolIE-Container {{ Unsuccessful-PUSCHSetItemIE-PSCH-ReconfFailureTDD }}

Unsuccessful-PUSCHSetItemIE-PSCH-ReconfFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD CRITICALITY ignore TYPE Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDDPRESENCE mandatory},
    ...
}

Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD ::= SEQUENCE {
    pUSCHSet-ID PUSCHSet-ID,
    cause Cause,
    iE-Extensions ProtocolExtensionContainer { {Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs} } OPTIONAL,
    ...
}

Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

.....	
id-Case2Item-Cell-SetupRqstTDD	INTEGER ::= 12
id-Cause	INTEGER ::= 13
id-CauseLevel-PSCH-ReconfFailureTDD	INTEGER ::= xxx
id-CauseLevel-RL-AdditionFailureFDD	INTEGER ::= xxx
id-CauseLevel-RL-AdditionFailureTDD	INTEGER ::= xxx
id-CauseLevel-RL-ReconfFailure	INTEGER ::= xxx
id-CauseLevel-RL-SetupFailureFDD	INTEGER ::= xxx
id-CauseLevel-RL-SetupFailureTDD	INTEGER ::= xxx
id-CCP-InformationItem-AuditRsp	INTEGER ::= 14
id-CCP-InformationList-AuditRsp	INTEGER ::= 15
id-CCP-InformationItem-ResourceStatusInd	INTEGER ::= 16
.....	
.....	
id-FACH-ParametersList-CTCH-ReconfRqstTDD	INTEGER ::= 120
id-FACH-ParametersListIE-CTCH-SetupRqstFDD	INTEGER ::= 121
id-FACH-ParametersListIE-CTCH-SetupRqstTDD	INTEGER ::= 122
id-GeneralCauseItem-PSCH-ReconfFailureTDD	INTEGER ::= xxx
id-GeneralCauseItem-RL-AdditionFailureFDD	INTEGER ::= xxx
id-GeneralCauseItem-RL-AdditionFailureTDD	INTEGER ::= xxx
id-GeneralCauseItem-RL-ReconfFailure	INTEGER ::= xxx
id-GeneralCauseItem-RL-SetupFailureFDD	INTEGER ::= xxx
id-GeneralCauseItem-RL-SetupFailureTDD	INTEGER ::= xxx
id-IndicationType-ResourceStatusInd	INTEGER ::= 123
id-Local-Cell-ID	INTEGER ::= 124
id-Local-Cell-InformationItem-AuditRsp	INTEGER ::= 125
.....	
.....	
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-RLSpecificCauseItem-RL-AdditionFailureFDD	INTEGER ::= xxx
id-RLSpecificCauseItem-RL-AdditionFailureTDD	INTEGER ::= xxx
id-RLSpecificCauseItem-RL-ReconfFailure	INTEGER ::= xxx
id-RLSpecificCauseItem-RL-SetupFailureFDD	INTEGER ::= xxx
id-RLSpecificCauseItem-RL-SetupFailureTDD	INTEGER ::= xxx
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
<u>id-SetSpecificCauseItem-PSCH-ReconfFailureTDD</u>	<u>INTEGER ::= xxx</u>
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
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
<u>id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD</u>	<u>INTEGER ::= xxx</u>
<u>id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD</u>	<u>INTEGER ::= xxx</u>
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD	INTEGER ::= 296
id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD	INTEGER ::= 297
id-Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD	INTEGER ::= 298

.....

<h2 style="margin: 0;">CHANGE REQUEST</h2>		<small>Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.</small>
25.433	CR	159
<small>GSM (AA.BB) or 3G (AA.BBB) specification number ↑</small>		<small>↑ CR number as allocated by MCC support team</small>
For submission to: TSG RAN #8 <small>list expected approval meeting # here ↑</small>	For approval <input checked="" type="checkbox"/> For information <input type="checkbox"/>	Current Version: 3.1.0 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:** May 2000

Subject: DL ISCP values for Node B

Work item:

Category:	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"/>	Release:	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: This CR proposes to notify the Node B about the DL timeslot ISCP values measured by the UE. The Node B may use the DL ISCP value to calculate an individual TX power offset for each timeslot of a CCTrCH.

Clauses affected: 8.3.2, 8.3.5, 9.1.46, 9.2.3.x, 9.3

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:

8.3.2 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

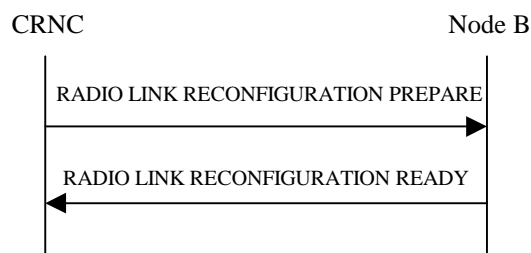


Figure 30: Synchronised Radio Link Reconfiguration procedure, Successful Operation

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-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.

RL Information:

[TDD - If the *DL Time Slot ISCP* IE is present, the Node B may use the indicated value when deciding the DL TX Power for each timeslot.]

8.3.2.3 Unsuccessful Operation

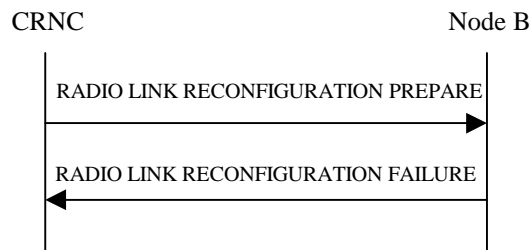


Figure 31: Synchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

If the Node B cannot reserve the necessary resources for all the new DCHs of one set of coordinated DCHs requested to be added, it shall regard the Synchronised Radio Link Reconfiguration procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration procedure fails for one or more RLS the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

[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 RECONFIGURATION FAILURE message].

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

Transport Layer Cause

- Transport Resources Unavailable

Protocol Cause

- Semantic error

Miscellaneous Cause

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

8.3.2.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of coordinated DCHs is requested to be deleted, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

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

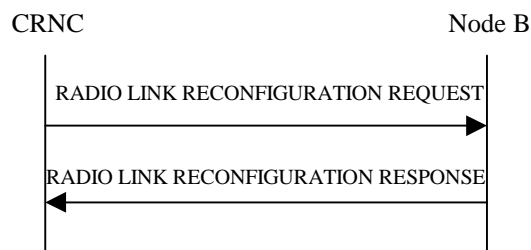


Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation

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-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.

RL Information:

[TDD - If the *DL Time Slot ISCP* IE is present, the Node B may use the indicated value when deciding the DL TX Power for each timeslot.]

8.3.5.3 Unsuccessful Operation

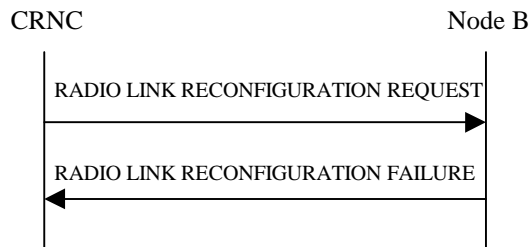


Figure 35: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

If the Node B cannot allocate the necessary resources for all the new DCHs of one set of coordinated, DCHs requested to be set-up it shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsynchronised Radio Link Reconfiguration procedure fails for one or more Radio Link(s) the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

[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 RECONFIGURATION FAILURE message].

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

Transport Layer Cause

- Transport Resources Unavailable

Protocol Cause

- Semantic error

Miscellaneous Cause

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

8.3.5.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of coordinated DCHs is requested to be deleted, the Node B shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

9.1.46 RADIO LINK RECONFIGURATION REQUEST

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				–	
UL CTrCH Information		<i>0..<maxn oofCTrCHs></i>			EACH	notify
>CTrCH ID	M				–	
>TFCS	O				–	
>Puncture Limit	O				–	
DL CTrCH Information		<i>0..<maxn oofCTrCHs></i>			EACH	notify
>CTrCH ID	M				–	
>TFCS	O				–	
>Puncture Limit	O				–	
DCHs to Modify		<i>0..<maxn oofDCHs ></i>			GLOBAL	reject
>DCH ID	M				–	
>CTrCH ID	O			UL CTrCH in which the DCH is mapped.	–	
>CTrCH ID	O			DL CTrCH 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				–	
DCHs to Add		<i>0..<maxn oofDCHs ></i>			GLOBAL	reject
>DCH ID	M				–	
>Limited Power Increase	M				–	
>CTrCH ID	M			UL CTrCH in which the DCH is mapped.	–	
>CTrCH ID	M			DL CTrCH 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				–	
DCHs to Delete		0..<maxnoofDSCHs>			GLOBAL	reject
>DCH ID	M				–	
DSCH Information to modify		0 .. <Maxnoof 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				–	
DSCH Information to add		0 .. <Maxnoof 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				–	
DSCH Information to delete		0 .. <Maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M				–	
USCH Information to modify		0 .. <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	O			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	O				–	
USCH Information to add		0 .. <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M				–	
USCH Information to delete		0 .. <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M				–	

RL Information		0..1			YES	reject
>RL ID	M				-	
>Maximum Downlink Power	O		DL Power		-	
>Minimum Downlink Power	O		DL Power		-	
>Time slot ISCP Info		<u>0..<maxn oofDLts></u>			=	
<u>>>Time slot</u>	<u>M</u>				=	
<u>>>DL Time slot ISCP</u>	<u>M</u>				=	

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
<u><i>MaxnoofDLts</i></u>	<u>Maximum number of Downlink time slots per Radio Link</u>

9.2.3.x DL Timeslot ISCP

DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [5].

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>DL Timeslot ISCP</u>			<u>INTEGER (0..91)</u>	<u>According to mapping in [5].</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,
    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,
DL-TimeslotISCP,
DPCH-ID,
DSCH-ID,

-
- (partly omitted)
-

maxNrOfCCTrCHs,
maxNrOfCodes,
maxNrOfCMPatterns,
maxNrOfDCHs,
maxNrOfDLCodes,
MaxNrOfDLTSs,
maxNrOfDPCHs,
maxNrOfDSCHs,
maxNrOfFACHs,
maxNrOfRLs,
maxNrOfRLSets,
maxNrOfPRACHs,
maxNrOfPDSCHs,
maxNrOfPUSCHs,
maxNrOfPDSCHSets,
maxNrOfPUSCHSets,
maxNrOfSCCPCHs,
maxNrOfULTSs,
maxNrOfUSCHs,
maxFACHCell,
maxRACHCell,
maxPRACHCell,
maxSCCPCHCell,

-
- (partly omitted)
-

```
-- *****
--
-- 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
    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,
  ...
}

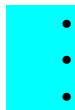
USCH-Information-DeleteItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

RL-Information-RL-ReconfRqstTDD ::= SEQUENCE {
  rL-ID                RL-ID,
  maxDL-Power          DL-Power          OPTIONAL,
  minDL-Power          DL-Power          OPTIONAL,
  timeslotISCPInfoList TimeslotISCPInfoList-RL-ReconfRqstTDD  OPTIONAL,
  iE-Extensions        ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstTDD-ExtIEs} }  OPTIONAL,
  ...
}

TimeslotISCPInfoList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1.. MaxNrOfDLTSs))
  SEQUENCE {
    timeSlot            TimeSlot,
    dL-TimeslotISCP    DL-TimeslotISCP,
    ...
  }

RL-InformationItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
  ...
}

```



9.3.4 NBAP Information Elements

```

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

```

- (partly omitted)

```
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 --
```

```
DL-TimeslotISCP ::= INTEGER (0..91)
```

```
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
```

```
-- =====
```

-
-
-

9.3.7 Constant Definitions for NBAP

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

-
- (partly omitted)
-

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

maxNrOfCodes	INTEGER ::= 10
maxNrOfCMPatterns	INTEGER ::= 8
maxNrOfDLCodes	INTEGER ::= 10
<u>MaxNrOfDLTSs</u>	<u>INTEGER ::= 15</u>
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

-
-
-

9.1 Message **f**unctional **d**efinition and **e**Content

9.1.1 **General**

9.1.42 Message Contents

9.1.42.1 Presence

An information element can be of the following *types*:

M	The information element is mandatory, i.e. always present in the message
O	The information element is optional, i.e. may or may not be present in the message independently on the presence or value of other information elements in the same message
C	The presence of the information element is conditional to the presence or to the value of another information element, as reported in the table below the message containing the explanation of the condition

In case of an information element group, the group is preceded by a name for the info group (in bold). It is also indicated how many times a group may be repeated in the message and whether the group is conditional. The presence field of the information elements inside one group defines if the information element is mandatory, optional or conditional if the group is present.

9.1.42.2 Criticality

Each information element or Group of information elements may have a criticality information applied to it. Following cases are possible:

–	No criticality information is applied explicitly.
YES	Criticality information is applied. 'YES' is usable only for non-repeatable information elements.
GLOBAL	The information element and all its repetitions together have one common criticality information. 'GLOBAL' is usable only for repeatable information elements.
EACH	Each repetition of the information element has its own criticality information. It is not allowed to assign different criticality values to the repetitions. 'EACH' is usable only for repeatable information elements.

9.1.23 COMMON TRANSPORT CHANNEL 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				–	
C-ID	M				YES	reject
Configuration Generation ID	M				YES	reject
CHOICE common physical channel to be configured					YES	ignore
>Secondary CCPCH					YES	reject
>Secondary CCPCH		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				–	
>>FACH Parameters	C-choiceCh	0..<maxnoofFACHs>			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.	–	
>>PCH Parameters	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		–	
>>>PICH Parameters		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..<maxSF>			–	
>>>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.
MaxSF	Maximum number of SF for a PRACH

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				–	
C-ID	M				YES	reject
Configuration Generation ID	M				YES	reject
CHOICE <i>common physical channels to be configured</i>					YES	ignore
<i>Secondary CCPCHs</i>					YES	reject
>CCTrCH ID	M			For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>TFCS	M			For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>Secondary CCPCH		<i>1..<maxnoofS - CCPCHs></i>			GLOBAL	reject
>>Common physical channel ID	M				–	
>>TDD Channelisation Code	M				–	
>>Time Slot	M				–	
>>Burst Type	M			Long or short midamble	–	
>>Midamble shift	M				–	
>>TDD Physical Channel Offset	M				–	
>>Repetition Period	M				–	
>>Repetition Length	M				–	
>>S-CCPCH Power	M		DL Power		–	
>>FACH	C ChoiceCh	<i>0..<maxnoofF ACHs></i>			GLOBAL	reject
>>>Common transport channel ID	M				–	
>>>Transport Format Set	M			For the DL.	–	
>>>ToAWS	M				–	
>>>ToAWE	M				–	
>>PCH	C ChoiceCh	<i>0..1</i>			GLOBAL	reject
>>>Common transport	M				–	

channel ID						
>>>Transport Format Set	M			For the DL.	-	
>>>ToAWS	M				-	
>>>ToAWE	M				-	
>>>PICH Parameters		1			-	
>>>>Common Physical Channel ID	M				-	
>>>>TDD Channelisation Code	M				-	
>>>>Time Slot	M				-	
>>>>Burst type	O				-	
>>>>Midamble shift	M				-	
>>>>TDD Physical Channel Offset	M				-	
>>>>Repetition period	M				-	
>>>>Repetition length	M				-	
>>>>Paging Indicator Length	M				-	
>>>>PICH Power	M		DL Power		YES	reject
<i>PRACH</i>						
>PRACH	M	1				
>>Common physical channel ID	M					
>>Time Slot	M					
>>TDD Channelisation Code	M					
>>Max PRACH Midamble Shifts	O					
>>PRACH Midamble	M					
>>RACH					-	
>>>Common transport channel ID	M				-	

Condition	Explanation
<i>ChoiceCh</i>	One of the channels FACH or PCH or both must be present.

Range bound	Explanation
<i>MaxnoofS-CCPCHs</i>	Maximum number of Secondary CCPCHs per CCTrCH.
<i>MaxnoofCCTrCHs</i>	Maximum number of CCTrCHs that can be defined in a cell.
<i>MaxnoofFACHs</i>	Maximum number of FACHs that can be defined on a Secondary CCPCH.

9.1.34 COMMON TRANSPORT CHANNEL SETUP RESPONSE

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				–	
CHOICE <i>common transport channel configured</i>					YES	ignore
>FACH					YES	ignore
>FACH Parameters	C-choiceCh	0..<maxnoofFACHs>			–	
>>Common Transport Channel ID	M				–	
>>Binding ID	M				–	
>>Transport layer address	M				–	
>PCH					YES	ignore
>PCH Parameters	C-choiceCh	0..1			–	
>>Common transport channel ID	M				–	
>>Binding ID	M				–	
>>Transport layer address	M				–	
>RACH					YES	ignore
>RACH parameters		1				
>>Common transport channel ID	M				–	
>>Binding ID	M				–	
>>Transport layer address	M				–	
Criticality Diagnostics	O				YES	ignore

Condition	Explanation
<i>ChoiceCh</i>	One of the channels FACH or PCH or both must be present.

Range bound	Explanation
<i>MaxnoofFACHs</i>	Maximum number of FACHs that can be defined on a Secondary CCPCH[FDD] / a group of Secondary CCPCHs [TDD].

9.1.45 COMMON TRANSPORT CHANNEL SETUP FAILURE

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				–	–
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.56 COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST

9.1.56.1 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
FACH parameters		<i>0..<maxFACHCell></i>			GLOBAL	reject
>Common Transport Channel ID	M				–	
>Max FACH Power	O		DL Power	Maximum allowed power on the FACH.	–	
>ToAWS	O				–	
>ToAWE	O				–	
PCH Parameters		<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				–	
PICH Parameters		<i>0..1</i>			YES	reject
>Common Physical Channel ID	M				–	
>PICH Power	M		DL Power	Power to be used on the PICH.	–	
PRACH Parameters		<i>0..<maxno ofPRACHs></i>			GLOBAL	reject
>Common Physical Channel ID	M				–	
>Preamble Signatures	M				–	
>Allowed Slot Format Information		<i>0..<maxSF></i>			–	
>>RACH Slot Format	M				–	
>RACH Sub Channel Numbers	O				–	
AICH Parameters		<i>0..<maxno ofPRACHs></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
maxnoofPRACHs	Maximum number of PRACHs and AICHes that can be defined in a Cell
<i>maxSF</i>	Maximum number of SF for a PRACH

9.1.56.2 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
Secondary CCPCH parameters		0 .. 1			YES	reject
>CCTrCH ID	M			For DL CCTrCH supporting one or several Secondary CCPCHs	–	
>Secondary CCPCHs to be configured		0.. <MaxnoofS CCPCHs>			GLOBAL	reject
>>Common physical channel ID	M				–	
>>S-CCPCH Power	M			DL power	–	
PICH Parameters		0 .. 1			YES	reject
>Common physical channel ID	M				–	
>PICH Power	M				–	
FACH parameters		0..<Maxno ofFACHs>			GLOBAL	reject
>Common Transport Channel ID	M				–	
>ToAWS	O				–	
>ToAWE	O				–	
PCH parameters		0 .. 1			GLOBAL	reject
>Common Transport Channel ID	M				–	
>ToAWS	O				–	
>ToAWE	O				–	

Range bound	Explanation
<i>MaxFACHCell</i>	Maximum number of FACHs that can be repeated in a Cell

9.1.67 COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.78 COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE

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				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.89 COMMON TRANSPORT CHANNEL DELETION 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
Common Physical Channel ID	M			Indicates the Common Physical Channel for which the Common Transport Channels (together with the Common Physical Channel) shall be deleted.	YES	reject
Configuration Generation ID	M				YES	reject

9.1.910 COMMON TRANSPORT CHANNEL DELETION RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.4011 BLOCK RESOURCE 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
Blocking Priority Indicator	M				YES	reject
Shutdown Timer	C- <i>BlockNormal</i>				YES	reject

Condition	Explanation
BlockNormal	The information element is present when the Blocking Priority Indicator IE indicates 'Normal Priority'.

9.1.4112 BLOCK RESOURCE RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.4213 BLOCK RESOURCE FAILURE

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				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.1314 UNBLOCK RESOURCE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction ID	M				–	
C-ID	M				YES	ignore

9.1.1415 AUDIT REQUIRED INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction ID	M				–	

9.1.1516 AUDIT 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				–	

9.1.1617 AUDIT RESPONSE

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				–	
Node B Information		1				
>DL or Global Capacity Credit	M					
>UL Capacity Credit	O					
>Common Channels Capacity Consumption Law	M					
>Dedicated Channels Capacity Consumption Law	M					
Cell Information		0.. < maxCellin NodeB >			EACH	ignore
>C-ID	M				–	
>Configuration Generation ID	M					
>Resource Operational State	M				–	
>Availability Status	M				–	
>Local Cell ID	M			The local cell that the cell is configured on		
>Maximum DL Power Capability	FFS				–	
>Minimum Spreading Factor	FFS				–	
>Primary SCH Information		0..1			YES	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>Secondary SCH Information		0..1			YES	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>Primary CPICH Information		0..1			YES	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>Secondary CPICH Information		0..<maxSC PICHCell>			EACH	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	

>>Availability Status	M				–	
>Primary CCPCH Information		0..1			YES	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>BCH Information		0..1			YES	ignore
>>Common Transport Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>Secondary CCPCH Information		0..<maxSC CPCHCell >			EACH	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>PCH Information		0..1			EACH	ignore
>>Common Transport Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>PICH Information		0..1			YES	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>FACH Information		0..<maxFA CHCell>			EACH	ignore
>>Common Transport Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>PRACH Information		0..<maxPR ACHCell>			EACH	ignore
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>RACH Information		0..<maxRA CHCell>			EACH	ignore
>>Common Transport Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>AICH Information		0..<maxRA CHCell>			EACH	ignore
>>Common Physical Channel ID	M				–	

>>Resource Operational State	M				–	
>>Availability Status	M				–	
>SCH Information		0..1			YES	ignore
>>Common Transport Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
Communication Control Port Information		0.. <maxCCPi nNodeB>			EACH	ignore
>Communication Control Port ID	M				–	
>Resource Operational State	M				–	
>Availability Status	M				–	
Local Cell Information		0.. <maxLocal CellinNode B>			EACH	ignore
>Local Cell ID	M				–	
>DL or Global Capacity Credit	M					
>UL Capacity Credit	O					
>Common Channels Capacity Consumption Law	M					
>Dedicated Channels Capacity Consumption Law	M					
>Maximum DL Power Capability	O				–	
Criticality diagnostics	O				YES	ignore

Range bound	Explanation
maxCellinNodeB	Maximum number of Cell that can be configured in Node B
maxCCPinNodeB	Maximum number of communication control ports that can exist in the Node B
maxLocalCellinNodeB	Maximum number of Local Cells that can exist in the Node B
maxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.
maxSCCPCHCell	Maximum number of Secondary CCPCH that can be defined in a Cell.
maxFACHCell	Maximum number of FACHes that can be defined in a Cell

9.1.1718 COMMON MEASUREMENT INITIATION 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				–	
Measurement Id	M				YES	reject
Common Measurement Object Type	M				YES	reject
CHOICE Common Measurement Object Type					YES	ignore
>"Cell"					YES	reject
>>C-ID	M				–	
>>Time Slot	O			TDD only	–	
>"RACH"					YES	reject
>>C-ID	M				–	
>>Common transport channel ID	M				–	
Common Measurement Type	M				YES	reject
Measurement Filter Coefficient	O				YES	reject
Report Characteristics	M				YES	reject

9.1.1819 COMMON MEASUREMENT INITIATION RESPONSE

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				–	
Measurement Id	M				YES	ignore
CHOICE Common Measurement Object Type					YES	ignore
>"Cell"					YES	ignore
>>Common Measurement value	M				–	
>"RACH"					YES	ignore
>>Common Measurement Value	M				–	
SFN	O			Common Measurement Time Reference	YES	ignore
Criticality Diagnostics	O				YES	ignore

9.1.1920 COMMON MEASUREMENT INITIATION FAILURE

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				–	
Measurement Id	M				YES	ignore
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.2021 COMMON MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
CHOICE Common <i>Measurement Object Type</i>					YES	ignore
>"Cell"					YES	ignore
>>Common Measurement value	M				–	
>"RACH"					YES	ignore
>>Common Measurement Value	M				–	
SFN	O			Common Measuremen t Time Reference	YES	ignore

9.1.2122 COMMON MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore

9.1.2223 COMMON MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
Cause	M				YES	ignore

9.1.2324 CELL SETUP REQUEST

9.1.2324.1 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
Primary SCH Information		1			YES	reject
>Common Physical Channel ID	M				–	
>Primary SCH Power	M		DL Power		–	
>TSTD Indicator	M				–	
Secondary SCH Information		1			YES	reject
>Common Physical Channel ID	M				–	
>Secondary SCH power	M		DL Power		–	
>TSTD Indicator	M				–	
Primary CPICH Information		1			YES	reject
>Common Physical Channel ID	M				–	
>Primary CPICH power	M				–	
>Transmit Diversity Indicator	M				–	
Secondary CPICH Information		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				–	
Primary CCPCH Information		1			YES	reject
>Common Physical Channel ID	M				–	
>BCH Information		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.

9.1.2324.2 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
SCH Information		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				–	
PCCPCH Information		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				–	
Time Slot Configuration		1 .. 15			GLOBAL	reject
>Time Slot	M				–	
>Time Slot Status	M				–	
>Time Slot Direction	M				–	

9.1.2425 CELL SETUP RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.2526 CELL SETUP FAILURE

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				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.2627 CELL RECONFIGURATION REQUEST

9.1.2627.1 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
Primary SCH Information		0,1			YES	reject
>Common Physical Channel ID	M				–	
>Primary SCH power	M		DL Power		–	
Secondary SCH Information		0,1			YES	reject
>Common Physical Channel ID	M				–	
>Secondary SCH power	M		DL Power		–	
Primary CPICH Information		0,1			YES	reject
>Common Physical Channel ID	M				–	
>Primary CPICH power	M				–	
Secondary CPICH Information		0..<maxSCPICHCell>			YES	reject
>Common Physical Channel ID	M				–	
>Secondary CPICH Power	M		DL Power		–	
Primary CCPCH Information		0,1			YES	reject
> BCH Information		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.

9.1.2627.2 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
SCH Information		0,1			YES	reject
>Common Physical Channel ID	M				–	
>SCH Power	M		DL Power		–	
PCCPCH Information		0,1			YES	reject
>Common Physical Channel ID	M				–	
>PCCPCH Power	M				–	
Maximum Transmission Power	O				YES	reject
Time Slot Configuration		1..15			GLOBAL	reject
>Time Slot	M				–	
>Time Slot Status	M				–	
>Time Slot Direction	M				–	

9.1.2728 CELL RECONFIGURATION RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.2829 CELL RECONFIGURATION FAILURE

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				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.2930 CELL DELETION 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

9.1.3031 CELL DELETION RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.3132 RESOURCE STATUS INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction ID	M				–	
Indication Type	M				YES	ignore
CHOICE Indication Type					YES	ignore
>"No Failure"					YES	ignore
>>Node B Information		1				
>>>DL or Global Capacity Credit	M					
>>>UL Capacity Credit	O					
>>>Common Channels Capacity Consumption Law	M					
>>>Dedicated Channels Capacity Consumption Law	M					
>>Local Cell Information		1.. <max LocalCellIn NodeB >			EACH	ignore
>>>Local Cell ID	M				–	
>>>Add/Delete Indicator	M				–	
>>>DL or Global Capacity Credit	C-add					
>>>UL Capacity Credit	O					
>>>Common Channels Capacity Consumption Law	C-add					
>>>Dedicated Channels Capacity Consumption Law	C-add					
>>>Maximum DL Power Capability	M				–	
>"Service Impacting"					YES	ignore
>>Node B Information		0..1				
>>>DL or Global Capacity Credit	O					
>>>UL Capacity Credit	O					
>>Local Cell Information		0.. <maxLocal CellInNode B>			EACH	ignore
>>>Local Cell ID	M				–	
>>>DL or Global Capacity Credit	O					
>>>UL Capacity Credit	O					
>>>Maximum DL Power Capability	O				–	
>>Communication Control Port Information		0.. <maxCCPi nNodeB>			EACH	ignore

>>>Communication Control Port ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>Cell Information		<i>0..<maxCellinNodeB></i>			EACH	ignore
>>>C-ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>>Maximum DL Power Capability	FFS				-	
>>>Minimum Spreading Factor	FFS				-	
>>Primary SCH Information		<i>0..1</i>			YES	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>Secondary SCH Information		<i>0..1</i>			YES	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>Primary CPICH Information		<i>0..1</i>			YES	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>Secondary CPICH Information		<i>0..<maxSCPICHCell></i>			EACH	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>Primary CCPCH Information		<i>0..1</i>			YES	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability	M				-	

Status						
>>BCH Information		0..1			YES	ignore
>>>Common Transport Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>Secondary CCPCH Information		0..<maxSC CPCHCell>			EACH	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>PCH Information		0..1			EACH	ignore
>>>Common Transport Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>PICH Information		0..1			YES	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>FACH Information		0..<maxFACHCell>			EACH	ignore
>>>Common Transport Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>PRACH Information		0..<maxPRACHCell>			EACH	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>RACH Information		0..<maxPRACHCell>			EACH	ignore
>>>Common Transport Channel ID	M				-	
>>>Resource Operational State	M				-	

>>>Availability Status	M				-	
>>AICH Information		0.. <maxPRA CHCell>			EACH	ignore
>>>Common Physical Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
>>SCH Information		0..1			YES	ignore
>>>Common Transport Channel ID	M				-	
>>>Resource Operational State	M				-	
>>>Availability Status	M				-	
Cause	O				YES	ignore

Condition	Explanation
C-add	This IE is present only if "Add/Delete Indicator" equals to add

Range bound	Explanation
<i>maxLocalCellinNodeB</i>	Maximum number of Local Cells that can exist in the Node B
<i>maxCellinNodeB</i>	Maximum number of C ID that can be configured in Node B
<i>maxSCPICHCell</i>	Maximum number of Secondary CPICH that can be defined in a Cell.
<i>maxSCCPCHCell</i>	Maximum number of Secondary CCPCH that can be defined in a Cell.
<i>maxFACHCell</i>	Maximum number of FACHes that can be defined in a Cell
<i>maxPRACHCell</i>	Maximum number of PRACHes and AICHes that can be defined in a Cell
<i>maxCCPinNodeB</i>	Maximum number of communication control ports that can exist in the Node B
<i>maxConsumptionLaws</i>	Maximum number of credit consumption laws.

9.1.3233 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
MIB/SIBInformation		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				–	
>>Segment Information		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 a physical channel scheduling cycle
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"

9.1.3334 SYSTEM INFORMATION UPDATE RESPONSE

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				–	
Criticality diagnostics	O				YES	ignore

9.1.3435 SYSTEM INFORMATION UPDATE FAILURE

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				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.3536 RADIO LINK SETUP REQUEST

9.1.3536.1 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				–	
UL DPCH Information		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				–	
DL DPCH Information					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				–	
>Power Offset Information		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				–	
DCH Information		1 to <maxnoof DCHs>			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	M				–	
>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				-	
DSCH Information		0 to <maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M				-	
>Transport Format Set	M			For DSCH	-	
>Frame handling Priority	M				-	
>ToAWS	M				-	
>ToAWE	M				-	
RL Information		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				-	
>DL Code Information		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.

9.1.3536.2 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				–	
UL CCTrCH Information		0 to <maxno CCTrCH>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	M				–	
>TFCI Coding	M				–	
>Puncture Limit	M				–	
UL DPCH Information		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				–	
DL CCTrCH Information		0 to <maxno CCTrCH>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	M				–	
>TFCI Coding	M				–	
>Puncture Limit	M				–	
>TDD TPC DL Step Size	M				–	
DL DPCH information		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				–	
DCH Information		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				–	
DSCH Information		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				–	
USCH Information		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	–	
RL Information		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

9.1.3637 RADIO LINK SETUP RESPONSE

9.1.3637.1 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	ignore
Transaction ID	M				–	
Node B Communication Context ID	M				YES	ignore
Communication Control Port ID	M				YES	ignore
RL Information Response		1 to <maxnoofRLs>			EACH	ignore
>RL ID	M				–	
>RL Set ID	M					
>UL interference level	M				–	
>Diversity Indication	C-NotFirstRL				–	
>CHOICE <i>diversity Indication</i>						
>>Combining					YES	ignore
>>>RL ID	M			Reference RL ID for the combining	–	
>>Non Combining or IE not present					YES	Ignore
>>>DCH Information Response		0 to <maxnoofDCHs>		Only one DCH per set of coordinated DCH shall be included	–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>DSCH Information Response		0 to <Numof DSCH>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>SSDT Support Indicator	M				–	
Criticality diagnostics	O				YES	ignore

Condition	Explanation
NotFirstRL	This IE is present only if the RL is not the first one in the RL Information.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of DCH per UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.

9.1.3637.2 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	ignore
Transaction ID	M				–	
Node B Communication Context ID	M				YES	ignore
Communication Control Port ID	M				YES	ignore
RL Information Response		1			YES	ignore
>RL ID	M				–	
>UL Interference per Time Slot		1 .. <maxnoofULts>		Interference Level for each UL time slot within the Radio Link		
>Time Slot	M					
>UL interference level	M					
>DCH Information Response		1 to <maxnoofDCH>		Only one DCH per set of coordinated DCH shall be included.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DSCH Information Response		0 .. <MaxnoofDSCHs>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH Information Response		0 .. <MaxnoofUSCHs>			GLOBAL	ignore
>>USCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
Criticality diagnostics	O				YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCH per UE
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUSCHs	Maximum number of USCHs for one UE
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.1.3738 RADIO LINK SETUP FAILURE

9.1.3738.1 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	ignore
Transaction ID	M				–	
Node B Communication Context ID	M				YES	ignore
Communication Control Port ID	O				YES	ignore
Unsuccessful RL Information Response		1 to <maxnoo fRLs>			EACH	ignore
>RL ID	M				–	
>Cause	M				–	
Successful RL Information Response		0 to <maxnoo fRLs–1>			EACH	ignore
>RL ID	M				–	
>RL Set ID	M					
>UL interference level	M				–	
>Diversity Indication	C-NotFirstRL				–	
>CHOICE <i>diversity Indication</i>					–	
>>Combining					YES	ignore
>>>RL ID	M			Reference RL ID for the combining	–	
>>Non Combining or IE not present					YES	ignore
>>>DCH Information Response		0 to <maxnoo fDCHs>		Only one DCH per set of coordinated DCH shall be included	–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>DSCH Information Response		0 to <Numof DSCH>			GLOBAL	Ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>SSDT Support Indicator	M				–	
Criticality diagnostics	O				YES	ignore

Condition	Explanation
Success	This IE is present if at least one of the radio links has been successfully set up.
NotFirstRL	This IE is present only if the RL is not the first one in the RL Information.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of set DCH per UE.
MaxnoofDSCHs	Maximum number of DSCH for one UE

9.1.3738.2 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	ignore
Transaction ID	M				–	
Unsuccessful RL Information Response		1			YES	ignore
>RL ID	M				–	
>Cause	M				–	
Criticality diagnostics	O				YES	ignore

9.1.3839 RADIO LINK ADDITION REQUEST

9.1.3839.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context ID	M				YES	reject
Transaction ID	M				–	
RL Information		1..<maxnoofRL-1>			EACH	notify
>RL ID	M				–	
>C-Id	M				–	
>Frame Offset	M				–	
>Chip Offset	M				–	
>Diversity Control Field	M				–	
>DL Code Information		1..maxnoofDL Codes			–	
>>DL Scrambling code	M				–	
>>FDD DL channelisation code number	M				–	
>Initial DL transmission power	O		DL Power		–	
>Maximum DL power	O		DL Power		–	
>Minimum DL power	O		DL Power		–	
>SSDT Cell Identity	O				–	
>Transmit Diversity Indicator	C – Diversity mode					

Condition	Explanation
Diversity mode	This IE is present unless <i>Diversity Mode</i> IE in <i>UL DPCH Information</i> group is “none”

Range bound	Explanation
<i>MaxnoofRL</i>	Maximum number of RLS for one UE
<i>MaxnoofDL Codes</i>	Maximum number of DL code information

9.1.3839.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context ID	M				YES	reject
Transaction ID	M				–	
UL CCTrCH Information		0 to <maxnoOfCCTrCH>			GLOBAL	reject
>CCTrCH ID	M				–	
UL DPCH Information		0 to <maxnoOfDPCH>			EACH	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				–	
DL CCTrCH Information		0 to <maxnoOfCCTrCH>			GLOBAL	reject
>CCTrCH ID	M				–	
DL DPCH information		0 to <maxnoOfDPCH>			EACH	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				–	
RL Information		1			YES	reject
>RL ID	M				–	
>C-Id	M				–	
>Frame Offset	M				–	
>Diversity Control Field	M				–	
>Initial DL Power	O		DL Power		–	
>Maximum DL power	O		DL Power		–	
>Minimum DL power	O		DL Power		–	

Range bound	Explanation
MaxnoOfDPCH	Maximum number of DPCH in one CCTrCH
MaxnoCCTrCH	number of CCTrCH for one UE.

9.1.3940 RADIO LINK ADDITION RESPONSE

9.1.3940.1 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	ignore
Transaction ID	M				–	
RL Information Response		1..<maxno ofRL-1>			EACH	ignore
>RL ID	M				–	
>RL Set ID	M				–	
>UL interference level	M				–	
>Diversity Indication	M				–	
>CHOICE <i>diversity indication</i>					–	
>>Combining					YES	ignore
>>>RL ID	M			Reference RL	–	
>>Non combining					YES	ignore
>>>DCH Information Response		1..<maxno ofDCHs>			–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>SSDT support indicator	M				–	
Criticality diagnostics	O				YES	ignore

Range bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs per UE
<i>MaxnoofRL</i>	Maximum number of RLs for one UE

9.1.3940.2 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	ignore
Transaction ID	M				–	
RL Information response		1			YES	ignore
>RL ID	M				–	
>UL Interference per Time Slot	M	1 .. <maxn oofULts >		Interference Level for each UL time slot within the Radio Link		
>>Time Slot	M					
>>UL interference level	M				–	
>Diversity Indication	M				–	
>CHOICE <i>diversity indication</i>						
>Combining				In TDD it indicates whether the old Transport Bearer shall be reused or not	YES	ignore
>>RL ID	M			Reference RL	–	
>Non combining					YES	ignore
>>DCH Information Response		0..<maxn oofD CHs>			–	
>>>DCH ID	M				–	
>>>Binding ID	M				–	
>>>Transport Layer Address	M				–	
>DSCH Information Response		0 .. <Maxn oofDSC Hs			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH Information Response		0 .. <Maxn oofUSC Hs			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 per UE
<i>MaxnoofDSCHs</i>	Maximum number of DSCHs for one UE
<i>MaxnoofUDCHs</i>	Maximum number of USCHs for one UE
<i>MaxnoofULts</i>	Maximum number of Uplink time slots per Radio Link

9.1.4041 RADIO LINK ADDITION FAILURE

9.1.4041.1 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	ignore
Transaction ID	M				–	
Unsuccessful RL Information Response		1..<maxnoofRL-1>			EACH	ignore
>RL ID	M				–	
>Cause	M				–	
Successful RL Information Response		1..<maxnoofRL-2>			EACH	ignore
>RL ID	M				–	
>RL Set ID	M				–	
>UL interference level	M				–	
>Diversity Indication	M				–	
>CHOICE <i>diversity indication</i>						
>>Combining					YES	ignore
>>>RL ID	M			Reference RL	–	
>>Non combining					YES	ignore
>>>DCH Information Response		1..<maxnoofDCHs>			–	
>>>>DCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>SSDT support indicator	M				–	
Criticality diagnostics	O				YES	ignore

Range bound	Explanation
<i>MaxnoofDCHs</i>	Maximum number of DCHs per UE
<i>MaxnoofRL</i>	Maximum number of RLs for one UE

9.1.4041.2 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	ignore
Transaction ID	M				–	
Unsuccessful RL Information Response		1			YES	ignore
>RL ID	M				–	
>Cause	M				–	
Criticality diagnostics	O				YES	ignore

9.1.4142 RADIO LINK RECONFIGURATION PREPARE

9.1.4142.1 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				–	
UL DPCH Information		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 DPCH Slot Format	O				–	
>SSDT Cell Identity Length	O				–	
>S-Field Length	O				–	
DL DPCH Information		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			
DCHs to Modify		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				–	
DCHs to Add		0..<max noofDC Hs>			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	M				–	
>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				–	

DCHs to Delete		<i>0..<max noofDCHs></i>			GLOBAL	reject
>DCH ID	M				–	
DSCH to modify		<i>0..<max noofDSCHs></i>			YES	reject
>DSCH ID	M				–	
>Transport Format Set	O			For the DL.	–	
>Frame Handling Priority	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
DSCH to add		<i>0..<max noofDSCHs></i>			YES	reject
>DSCH ID	M				–	
>Transport Format Set	M			For the DL.	–	
>Frame Handling Priority	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
DSCH to Delete		<i>0..<max noofDSCHs></i>			YES	reject
>DSCH ID	M				–	
RL Information		<i>0..<max noofRLs></i>			EACH	reject
>RL ID	M				–	
>DL Code Information		<i>0..<max noofDL Codes></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.

9.1.4142.2 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				–	
UL CCTrCH Information		0.. <maxno of CCTrC Hs>			GLOBAL	reject
>CCTrCH ID	M				–	
>TFCS	O				–	
>TFCI Coding	O				–	
>Puncture Limit	O				–	
>UL DPCH Information		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				–	
DL CCTrCH Information		0.. <maxno of CCTrC Hs			GLOBAL	reject
>CCTrCH ID	M				–	
>TFCS	O				–	
>TFCI Coding	O				–	
>PunctureLimit					–	
>DL DPCH Information		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				–	

DCHs to Modify		<i>0..<max noofDC Hs></i>			GLOBAL	reject
>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				–	
DCHs to Add		<i>0..<max noofDC Hs></i>			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 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				–	
DCHs to Delete		<i>0..<max noofDC Hs></i>			GLOBAL	reject
>DCH ID	M				–	
DSCH Information to modify		<i>0 .. <Maxno of DSCHs ></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				–	
DSCH Information to add		<i>0 .. <Maxno of DSCHs</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				–	
DSCH Information to delete		0 .. <Maxno of DSCHs >			GLOBAL	reject
>DSCH ID	M				–	
USCH Information to modify		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				–	
>Transport Format Set	O				–	
>CCTrCH ID	O			UL CCTrCH in which the USCH is mapped	–	
USCH Information to add		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M				–	
USCH Information to delete		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M				–	
RL Information		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

9.1.4243 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				–	
RL Information Response		<i>0..<max noofRLs ></i>		Only one RL information response group for one group of combined RLs shall be present	EACH	ignore
>RL ID	M				–	
>DCH to be Added		<i>0..<max noofDC Hs></i>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DCH to be Modified		<i>0..<max noofDC Hs></i>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DSCH to be Setup		<i>0..<Max noofDS CHs></i>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DSCH to be Modified		<i>0..<Max noofDS CHs.></i>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH to be setup		<i>0 .. <Maxno of USCHs ></i>			GLOBAL	ignore
>>USCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH to be modified		<i>0 .. <Maxno of USCHs ></i>			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

9.1.4344 RADIO LINK RECONFIGURATION FAILURE

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				–	
Cause	M				YES	ignore
RLs Causing Reconfiguration Failure		<i>0..<max noofRLs ></i>			EACH	ignore
>RL ID	M				–	
>Cause	M				–	
Criticality diagnostics	O				YES	ignore

Range Bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of RLs for a UE.

9.1.4445 RADIO LINK RECONFIGURATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message type	M				YES	ignore
Node B Communication Context ID	M				YES	ignore
Transaction ID	M				–	
CFN	M				YES	ignore

9.1.4546 RADIO LINK RECONFIGURATION CANCEL

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message type	M				YES	ignore
Node B Communication Context ID	M				YES	ignore
Transaction ID	M				–	

9.1.4647 RADIO LINK RECONFIGURATION REQUEST

9.1.4647.1 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				–	
UL DPCH Information		0..1			YES	reject
>TFCS	O			For the UL.	–	
DL DPCH Information		0..1			YES	reject
>TFCS	O			For the DL.	–	
>TFCI Signalling Mode	O				–	
>PDSCH code mapping	O					
>PDSCH RL ID	O		RL ID			
DCHs to Modify		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				–	
DCHs to Add		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M				–	
>DCH Combination Ind	O				–	
>Limited Power Increase	M				–	
>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				–	
DCHs to Delete		0..<maxn oofDCHs >			GLOBAL	reject
>DCH ID	M				–	
DSCH to Modify		0..<maxn oofDSCHs >			YES	reject
>DSCH ID	M				–	
>Transport Format Set	O			For the DL.	–	
>Frame Handling Priority	O				–	
>ToAWS	O				–	
>ToAWE	O				–	
DSCH to Add		0..<maxn oofDSCHs >			YES	reject

>DSCH ID	M				–	
>Transport Format Set	M			For the DL.	–	
>Frame Handling Priority	M				–	
>ToAWS	M				–	
>ToAWE	M				–	
DSCH to Delete		0..1			YES	reject
>DSCH ID	M				–	
Radio Link Information		0..<maxn oofRLs>			EACH	reject
>RL ID	M				–	
>Maximum DL Power	O		DL Power		–	
>Minimum DL Power	O		DL Power		–	

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.

9.1.4647.2 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				–	
UL CCTrCH Information		<i>0..<maxn oofCCTrCHs></i>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	O				–	
>Puncture Limit	O				–	
DL CCTrCH Information		<i>0..<maxn oofCCTrCHs></i>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	O				–	
>Puncture Limit	O				–	
DCHs to Modify		<i>0..<maxn oofDCHs ></i>			GLOBAL	reject
>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				–	
DCHs to Add		<i>0..<maxn oofDCHs ></i>			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 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				–	
DCHs to Delete		0..<maxn oofDSCH s>			GLOBAL	reject
>DCH ID	M				–	
DSCH Information to modify		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				–	
DSCH Information to add		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				–	
DSCH Information to delete		0 .. <Maxnoo f DSCHs>			GLOBAL	reject
>DSCH ID	M				–	
USCH Information to modify		0 .. <Maxnoo f USCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	O			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	O				–	
USCH Information to add		0 .. <Maxnoo f USCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M				–	
USCH Information to delete		0 .. <Maxnoo f USCHs>			GLOBAL	reject
>USCH ID	M				–	
RL Information		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

9.1.4748 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				–	
RL Information Response		<i>0..<maxn oofRLs></i>		Only one RL information response group for one group of combined RLs shall be present	EACH	ignore
>RL ID	M				–	
>DCH to be Added		<i>0..<maxn oofDCHs ></i>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DCH to be Modified		<i>0..<maxn oofDCHs ></i>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DSCH to be Setup		<i>0..<Maxn oofDSCH s></i>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>DSCH to be Modified		<i>0..<Maxn oofDSCH s></i>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH to be setup		<i>0 .. <Maxn oofUSCHs></i>			GLOBAL	ignore
>>USCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>USCH to be modified		<i>0 .. <Maxn oofUSCHs></i>			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

9.1.4849 RADIO LINK DELETION REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context ID	M				YES	reject
Transaction ID	M				–	
RL Information		1..<maxnoofRLs>			EACH	notify
RL ID	M				–	

Range bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of radio links for one UE

9.1.4950 RADIO LINK DELETION RESPONSE

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	ignore
Transaction ID	M				–	
Criticality diagnostics	O				YES	ignore

9.1.5051 DL POWER CONTROL REQUEST [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Node B Communication Context ID	M				YES	ignore
Transaction ID	M				–	
Power Adjustment Type	M				YES	ignore
DL Reference Power	C-Common		DL power		–	
DL Reference Power Information	C-Individual	1..<maxnoof RLS>			GLOBAL	ignore
>RL ID	M				–	
>DL Reference Power	M		DL power		–	
Max Adjustment Step	C-CommonOrIndividual					
Max. Adjustment Period	C-CommonOrIndividual					

Condition	Explanation
Common	This IE is present only "Adjustment Type " equals to 'Common'
Individual	This IE is present only "Adjustment Type " equals to 'Individual'
CommonOrIndividual	This IE is present only "Adjustment Type " equals to 'Common' or 'Individual'

Range Bound	Explanation
MaxnoofRLs	Maximum number of Radio Links for a UE

9.1.5452 DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B Communication Context Id	M				YES	reject
Transaction Id	M				–	
Measurement Id	M				YES	reject
Dedicated Measurement Object Type	M				YES	reject
CHOICE <i>Dedicated Measurement Object Type</i>					YES	ignore
>"RL"					YES	reject
>>RL Information		1..<maxnoofRLs>			EACH	reject
>>>RL-id	M				–	
>>>DPCH ID	O				–	
>"RLS"						
>>RL Set Information		1..<maxnoofRLSets>				
>>>RL Set ID	M					
Dedicated Measurement Type	M				YES	reject
Measurement Filter Coefficient	O				YES	reject
Report Characteristics	M				YES	reject

Range	Explanation
<i>MaxnoofRLs</i>	Maximum number of individual RL's a measurement can be started on.
<i>MaxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on.

9.1.5253 DEDICATED MEASUREMENT INITIATION RESPONSE

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	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>				Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>"RL" or "ALL RL"					YES	ignore
>>RL Information		1..<maxnoofRLs>			EACH	ignore
>>>RL-id	M				–	
>>>DPCH ID	O				–	
>>>Dedicated Measurement Value	M					
>"RLS" or "ALL RLS"					YES	ignore
>>RL Set Information		1..<maxnoofRLSets>			–	
>>>RL Set ID	M					
>>>Dedicated Measurement Value	M					
CFN	O			Dedicated Measurement Time Reference	YES	ignore
Criticality diagnostics	O				YES	ignore

Range	Explanation
<i>MaxnoofRLs</i>	Maximum number of individual RL's the measurement can be started on.
<i>MaxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on.

9.1.5354 DEDICATED MEASUREMENT INITIATION FAILURE

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	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.5455 DEDICATED MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
CRNC Communication Context Id	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>				Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>"RL" or "ALL RL"					YES	ignore
>>RL Information		1..<maxnoofRLs>			EACH	ignore
>>>RL-id	M				–	
>>>DPCH ID	O				–	
>>>Dedicated Measurement Value	M				–	
>"RLS" or "ALL RLS"						
>>RL Set Information		1..<maxnoofRLSets>				
>>>RL Set id	M					
>>>Dedicated Measurement Value	M					
CFN	O			Dedicated Measurement Time Reference	YES	ignore

Range	Explanation
<i>MaxnoofRLs</i>	Maximum number of individual RL's the measurement can be started on.
<i>MaxnoofRLSets</i>	Maximum number of individual RL Sets a measurement can be started on.

9.1.5556 DEDICATED MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Node B Communication Context Id	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore

9.1.5657 DEDICATED MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
CRNC Communication Context Id	M				YES	ignore
Transaction Id	M				–	
Measurement Id	M				YES	ignore
Cause	M				YES	ignore

9.1.5758 RADIO LINK FAILURE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction ID	M				–	
CRNC Communication Context ID	M				YES	ignore
CHOICE <i>Reporting Object</i>	M			Object for which the Failure shall be reported.		
>"RL"						
>>RL Information		1 to <MaxnoofRLs>			EACH	ignore
>>>RL ID	M				–	
>>>Cause	M				–	
>"RL Set"						
>>RL Set Information		1 to <MaxnoofRL Sets>				
>>>RL Set ID	M					
>>>Cause	M					

Range bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of RLs for one UE.
<i>MaxnoofRLSets</i>	Maximum number of RL Sets for one UE.

9.1.5859 RADIO LINK RESTORE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Transaction ID	M				–	
CRNC Communication Context ID	M				YES	ignore
CHOICE <i>Reporting Object</i>	M			Object for which the Restoration shall be reported.		
>"RL"						
>>Radio Link Information		1 to <MaxnoofRLs>			EACH	ignore
>>>RL ID	M				–	
>"RL Set"						
>>RL Set Information		1 to <MaxnoofRLSets>				
>>>RL Set ID	M					

Range bound	Explanation
<i>MaxnoofRLs</i>	Maximum number of RLs for one UE.
<i>MaxnoofRLSets</i>	Maximum number of RL Sets for one UE.

9.1.5960 COMPRESSED MODE PREPARE [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B communication context ID	M				YES	reject
Transaction ID	M				–	
CM Pattern Information		1 to 8		Range defined ref. [4]		
>CFN Offset	M					
>TGP1	M		Gap Period	Refer to [4]	YES	reject
>TGP2	O		Gap Period	Refer to [4]	YES	reject
>TGL	M				YES	reject
>TGD	M				YES	reject
>PD	M				YES	reject
>UL/DL compressed mode selection	M				YES	reject
>Compressed mode method	M				YES	reject
>Gap Position Mode	M				YES	reject
>SN	C-Flex		TimeSlot		YES	reject
>Downlink Frame Type	M				YES	reject
>Scrambling Code Change	C-SF/2				YES	reject
>Power Control Mode	M				YES	reject
>Power Resume Mode	M				YES	reject
>UL delta SIR	M				YES	reject
>UL delta SIR after	M				YES	reject

Condition	Explanation
Flex	This IE is present only if "Gap position Mode" equals to 'flexible'.
SF/2	This IE is present only if Compressed Mode Method equals to SF/2

9.1.6061 COMPRESSED MODE READY [FDD]

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	ignore
Transaction ID	M				–	
Criticality diagnostics	O				YES	ignore

9.1.6162 COMPRESSED MODE COMMIT [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	ignore
Node B communication context ID	M				YES	ignore
Transaction ID	M				–	
CFN	M				YES	ignore

9.1.6263 COMPRESSED MODE FAILURE [FDD]

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	ignore
Transaction ID	M				–	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore

9.1.6364 COMPRESSED MODE CANCEL [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M				–	
Message Type	M				YES	reject
Node B communication context ID	M				YES	ignore
Transaction ID	M				–	

9.1.6465 ERROR INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M				-	
Message Discriminator	M				YES	ignore
CRNC Communication Context Id	C-ifUL				-	
Node B Communication Context Id	C-ifDL				YES	ignore
Transaction Id	M				YES	ignore
Cause	C-ifalone				YES	ignore
Criticality diagnostics	C-ifalone				YES	ignore

Condition	Explanation
IfDL	This IE is only present when message is transmitted by the CRNC on a signalling bearer corresponding to a communication control port.
IfUL	This IE is only present when message is transmitted by the Node B on a signalling bearer corresponding to a communication control port.
Ifalone	At least either of Cause IE or Criticality Diagnostics IE shall be present.

9.1.6566 PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				-	
Message Type	M				YES	reject
Transaction ID	M				-	
C-ID	M				YES	reject
PDSCH Sets to add		<i>0..<maxnoof PDSCHSets ></i>			GLOBAL	reject
>PDSCH Set Id	M				-	
>PDSCH Information		<i>0..<maxnoof PDSCH></i>			GLOBAL	reject
>>PDSCH ID	M				-	
>>TDD Channelisation Code	M				-	
>>Burst Type	M				-	
>>Midamble Shift	M				-	
>>Time Slot	M				-	
>>Repetition Period	M				-	
>>TDD Physical Channel Offset	O				-	
>>Repetition Length	O				-	
>>TFCI Presence	M				-	
PDSCH Sets to Modify		<i>0..<maxnoof PDSCHSets ></i>			GLOBAL	reject
>PDSCH Set Id	M				-	
>PDSCH Information		<i>0..<maxnoof PDSCH></i>			GLOBAL	reject

>>PDSCH ID	M				-	
>>TDD Channelisation Code	M				-	
>>Burst Type	M				-	
>>Midamble Shift	M				-	
>>Time Slot	M				-	
>>Repetition Period	M				-	
>>TDD Physical Channel Offset	O				-	
>>Repetition Length	O				-	
>>TFCI Presence	M				-	
PDSCH Sets to Delete		<i>0..<maxnoof PDSCHSets ></i>			GLOBAL	reject
>PDSCH Set Id	M				-	
PUSCH Sets to add		<i>0..<maxnoof PUSCHSets ></i>			GLOBAL	reject
>PUSCH Set Id	M				-	
>PUSCH Information		<i>0..<maxnoof PUSCH></i>			GLOBAL	reject
>>PUSCH ID	M				-	
>>TDD Channelisation Code	M				-	
>>Burst Type	M				-	
>>Midamble Shift	M				-	
>>Time Slot	M				-	
>>Repetition Period	M				-	
>>TDD Physical Channel Offset	O				-	
>>Repetition Length	O				-	
>>TFCI Presence	M				-	
PUSCH Sets to Modify		<i>0..<maxnoof PUSCHSets ></i>			GLOBAL	reject
>PUSCH Set Id	M				-	
>PUSCH Information		<i>0..<maxnoof PUSCH></i>			GLOBAL	reject
>>PUSCH ID	M				-	
>>TDD Channelisation Code	M				-	
>>Burst Type	M				-	
>>Midamble Shift	M				-	
>>Time Slot	M				-	
>>Repetition Period	M				-	
>>TDD Physical Channel Offset	O				-	
>>Repetition Length	O				-	
>>TFCI Presence	M				-	
PUSCH Sets to Delete		<i>0..<maxnoof PUSCHSets ></i>			GLOBAL	reject
>PUSCH Set Id	M				-	

Range bound	Explanation
<i>Maxnoof PDSCH Sets</i>	Maximum number of PDSCH Sets in a cell.
<i>Maxnoof PDSCH</i>	Maximum number of PDSCH in a cell.
<i>Maxnoof PUSCH Sets</i>	Maximum number of PUSCH Sets in a cell.
<i>Maxnoof PUSCH</i>	Maximum number of PUSCH in a cell.

9.1.6667 PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				-	
Message Type	M				YES	reject
Transaction ID	M				-	
Criticality diagnostics	O				YES	ignore

9.1.6768 PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE [TDD]

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M				-	
Message Type	M				YES	reject
Transaction ID	M				-	
Cause	M				YES	ignore
Criticality diagnostics	O				YES	ignore