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Technical Specification

**Universal Mobile Telecommunications System (UMTS);
UTRAN Iub Interface NBAP Signalling
(3G TS 25.433 version 3.2.0 Release 1999)**

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Foreword

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Contents

Foreword

This Technical Specification has been produced by the 3GPP.

The contents of the present document are subject to continuing work within the TSG and may change following formal TSG approval. Should the TSG modify the contents of this TS, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

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y   the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.

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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)"

[22]   3G TS 25.133: "Requirements for support of Radio Resource management (FDD)"

[23]   3G TS 25.123: " Requirements for support of Radio Resource management (TDD)"

[24]   3G TS 25.435: "UTRAN Iub Interface: User Plane Protocols for Common Transport Channel Data Streams".

[25]   3G TS 25.302: "Services Provided by the Physical Layer".

3   Definitions, symbols and abbreviations

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.

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

Void.

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
CM	Compressed Mode
CPCH	Common Packet Channel
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
PCPCH	Physical Common Packet Channel
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.

4.3 Specification Notations

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

[FDD]	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.
[TDD]	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.
[FDD - …]	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.
[TDD - …]	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.
Procedure	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.
Message	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.
IE	When referring to an information element (IE) in the specification the *Information Element Name* 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. *Transport Format Set* IE.
Value of an IE	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".

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 Response message	Unsuccessful Outcome 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	

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 Command	COMPRESSED MODE COMMAND
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, PCPCH[FDD], AICH [FDD], AP_AICH[FDD], CD/CA-ICH[FDD], FACH, PCH, RACH and CPCH[FDD].

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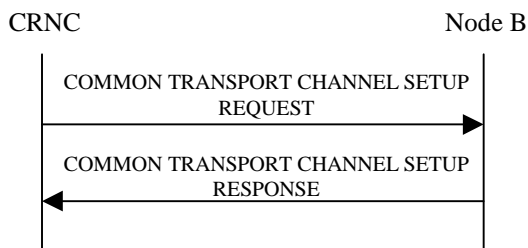
Figure 1: Common Transport Channel Setup procedure, Successful Operation

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.

- [FDD-PCPCHes, one CPCH, one AP_AICH and one CD/CA-ICH related to that group of PCPCHes 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.]
[FDD-PCPCHes]:	When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains PCPCHes, 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 AP-AICH and CD/CA-ICH is FFS.]

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

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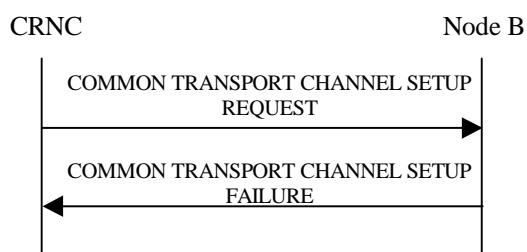
Figure 2: Common Transport Channel Setup procedure, Unsuccessful Operation

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

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

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

Typical cause values are as follows:

Radio Network Layer Cause

- Cell not available

- Unknown C-ID

- Power level not supported

- Node B Resources unavailable

Transport Layer Cause

- Transport Resources Unavailable

Protocol Cause

- Semantic error

- Message not compatible with receiver state

Miscellaneous Cause

- O&M Intervention

- Unspecified

- Control processing overload

- HW failure

8.2.1.4 Abnormal Conditions

-

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

CRNC   Node B

COMMON TRANSPORT CHANNEL
RECONFIGURATION REQUEST

COMMON TRANSPORT CHANNEL
RECONFIGURATION RESPONSE
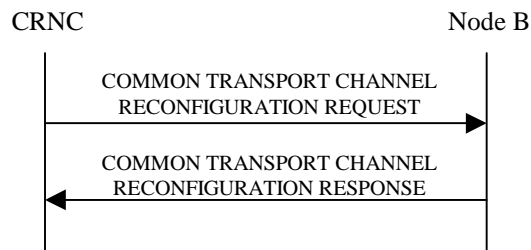
Figure 3: Common Transport Channel Reconfiguration, Successful Operation

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

One message can configure only one of the following combinations:

- [FDD- FACHes, one PCH and/or one PICH related to one Secondary CCPCH], or

- [TDD- Secondary CCPCHes and FACHes, PCH with the corresponding PICH related to that group of Secondary CCPCHes], or

- one RACH and/or one AICH(FDD) related to one PRACH, or

- [FDD- one CPCH and/or one AP-AICH and/or one CD/CA-ICH related to one CPCH

at the time.

[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.

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

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes UL SIR Information, the Node B shall reconfigure the UL SIR for the UL power control for the CPCH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes Initial DL transmission Power Information, the Node B shall reconfigure the Initial DL transmission Power for the CPCH.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes Maximum DL Power Information, the Node B shall apply this value to the new configuration and never transmit with a higher power on any DL PCPCHes once the new configuration is being used.

If the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message includes Minimum DL Power Information, the Node B shall apply this value to the new configuration and never transmit with a lower power on any DL PCPCHes once the new configuration is being used.

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

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

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

[FDD-CD/CA-ICH]: When a CD/CA-ICH is present Node B reconfigures the indicated CD/CA-ICH.

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

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

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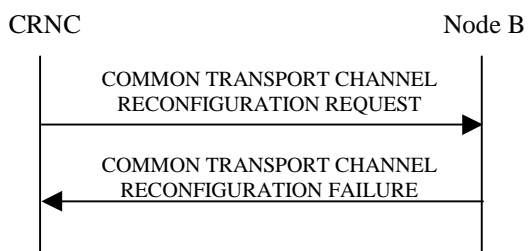
Figure 4: Common Transport Channel Reconfiguration procedure, Unsuccessful Operation

If the Node B is not able to support all parts of the configuration, it shall reject the configuration of all the channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message. The channels in the COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST message shall remain in the same state as prior to the procedure. The *Cause* 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 RECONGURATION 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

-

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
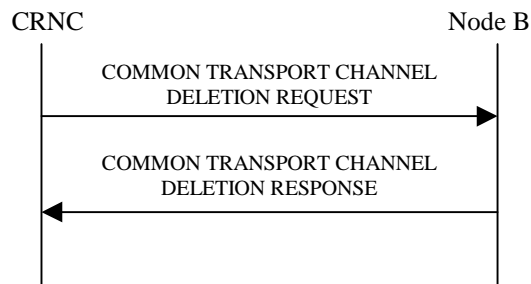
Figure 5: Common Transport Channel Deletion procedure, Ssuccessful Operation

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.]

[FDD – PCPCHes]: When the COMMON TRANSPORT CHANNEL DELETION REQUEST message contains one of PCPCHes for a CPCH, Node B shall delete all PCPCHes associated with the indicated channel and the CPCH supported by the PCPCHes. The AP-AICH and CD/CA-ICH 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. The channels in the COMMON TRANSPORT CHANNEL DELETION REQUEST message shall be set to state Not Existing [6]. Node B shall store the new value of the *Configuration Generation ID* IE, and respond with the COMMON TRANSPORT CHANNEL DELETION RESPONSE message.

8.2.3.3 Unsuccessful Operation

-

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

CRNC   Node B

BLOCK RESOURCE REQUEST

BLOCK RESOURCE RESPONSE
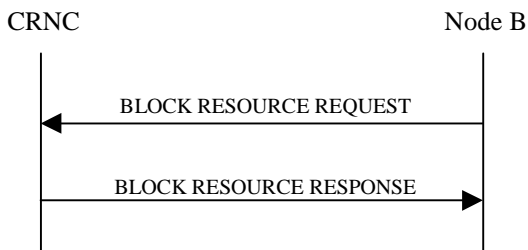
Figure 6: Block Resource procedure, Successful Operation

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

CRNC   Node B

BLOCK RESOURCE REQUEST

BLOCK RESOURCE FAILURE
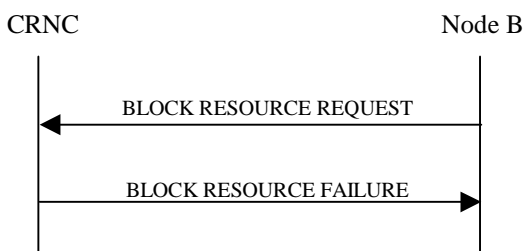
Figure 7: Block Resource procedure, Unsuccessful Operation

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

-

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
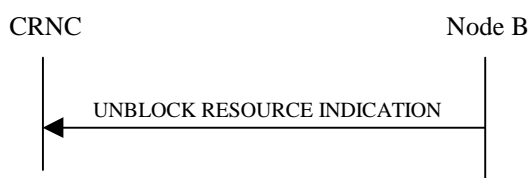
Figure 8: Unblock Resource procedure, Successful Operation

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 preceeding 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 acell, all associated physical channels and transport channels are unblocked.

8.2.5.3 Abnormal Conditions

-

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

CRNC   Node B

AUDIT REQUIRED INDICATION
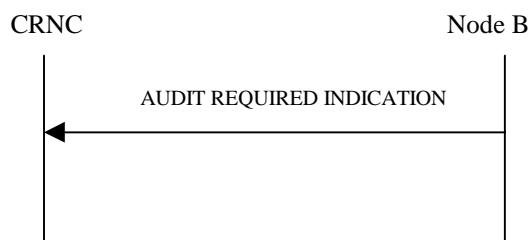
Figure 9: Audit Required procedure, Successful Operation

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

-

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

CRNC   Node B

AUDIT REQUEST

AUDIT RESPONSE
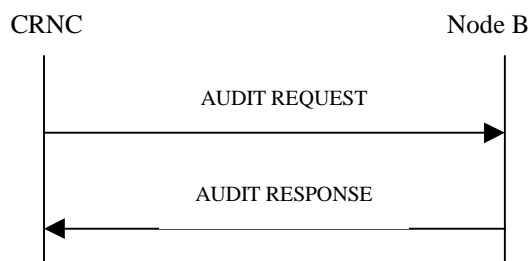
Figure 10: Audit procedure, Successful Operation

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.

8.2.7.3   Unsuccessful Operation

-

8.2.7.4   Abnormal Conditions

-

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
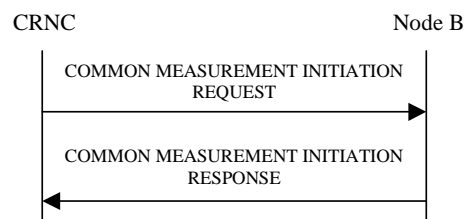
Figure 11: Common Measurement Initiation procedure: Successful Operation

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.]

[FDD- If the Spreading Factor Information is provided in the *Common Measurement Object* Type *IE*, measurement request shall apply to the PCPCHes whose minimum allowed spreading factor (Min UL Channelisation Code Length) is equal to the value of Spreading Factor Information.

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

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

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

The physical layer measurement results are sampled once every measurement period. For most measurements the measurement period and the accuracy are defined in [22] / [23]. For those measurements not covered in [22] / [23], 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.

8.2.8.3   Unsuccessful Operation
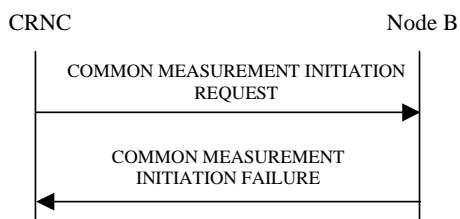
Figure 12: Common Measurement Initiation procedure: Unsuccessful Operation

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 measurenment 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.

-    Measurement Temporaily not Available

8.2.8.4   Abnormal Conditions

-

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

CRNC   Node B

COMMON MEASUREMENT REPORT
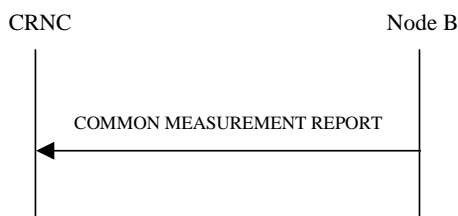
Figure 13: Common Measurement Reporting procedure: Successful Operation

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.

If the achieved measurement accuracy does not fulfil the given accuracy requirement, the Measurement not available shall be reported.

8.2.9.3 Abnormal Conditions

-

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

CRNC   Node B

COMMON MEASUREMENT TERMINATION
REQUEST

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

CRNC   Node B

COMMON MEASUREMENT FAILURE
INDICATION

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

CRNC   Node B

CELL SETUP REQUEST

CELL SETUP
RESPONSE
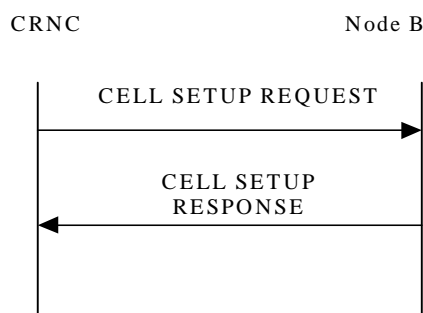
Figure 16: Cell Setup procedure: Successful Operation

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.

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

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

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

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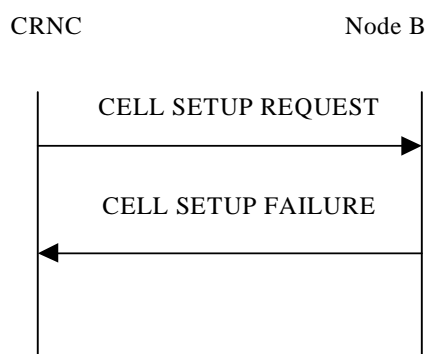
Figure 17: Cell Setup procedure: Unsuccessful Operation

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

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

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

The *Cause* IE shall be set to an appropriate value.

8.2.12.4   Abnormal Conditions

-

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

```
Controlling                                    Node B
RNC

              Cell Reconfiguration Request


              Cell Reconfiguration Response
```
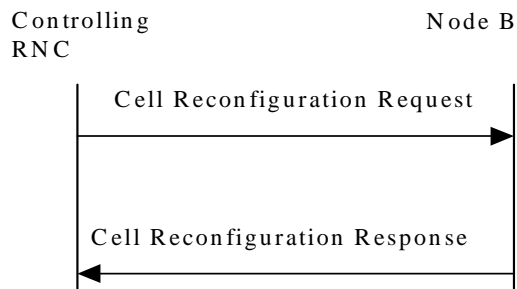
Figure 18: Cell Reconfiguration procedure: Successful Operation

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.]

[TDD - If the CELL RECONFIGURATION REQUEST message includes any of the *Constant Value* IE's, the Node B shall use these values when generating the appropriate SIB.]

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

If the CELL RECONFIGURATION REQUEST message includes the *Synchronisation Configuration IE* group the Node B shall reconfigure the indicated parameters in the cell according to the IE value. The modified parameters shall not impact the existing value of any ongoing timer or counter relating to the synchronisation status of a RL set. When the parameters in the *Synchronisation Configuration IE* group affect the thresholds applied to a RL set, the Node B shall immediately apply the new thresholds.

8.2.13.3 Unsuccessful Operation

```
    Controlling                          Node B
    RNC

         │  Cell Reconfiguration  Request   │
         │─────────────────────────────────▶│
         │                                  │
         │                                  │
         │   Cell Reconfiguration Failure   │
         │◀─────────────────────────────────│
         │                                  │
```
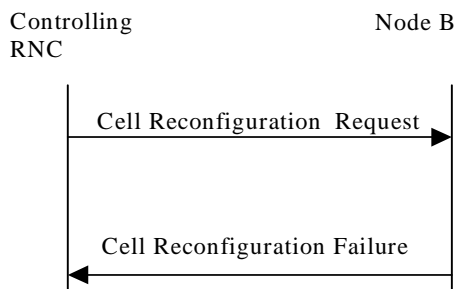
Figure 19: Cell Reconfiguration procedure: Unsuccessful Operation

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

-

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

```
        CRNC                          Node B

         │    CELL DELETION REQUEST         │
         │─────────────────────────────────▶│
         │    CELL DELETION RESPONSE        │
         │◀─────────────────────────────────│
         │                                  │
```
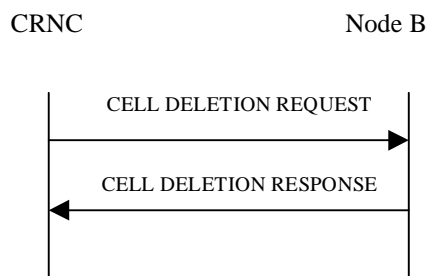
Figure 10: Cell Deletion procedure: Successful Operation

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. The states for the cell and the deleted channels shall be set to Not Existing [6].

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

8.2.14.3 Unsuccessful Operation

-

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
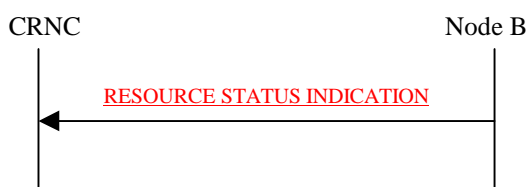
Figure 21: Resource Status Indication procedure: Successful Operation

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 INDICAION 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

-

8.2.16   System Information Update

8.2.16.1   General

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

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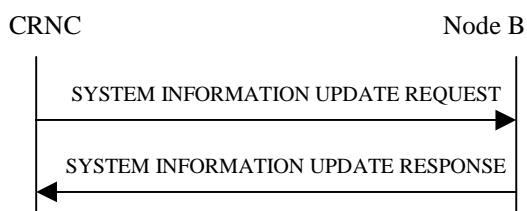
Figure 22: System Information Update procedure: Successful Operation

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

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

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

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

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:

- SFN mod IB_SG_REP = IB_SG_POS

If the SYSTEM INFORMATION UPDATE REQUEST message contains Master Information Block (MIB) segmentsin addition to SIB segments, the MIB segments shall first be sent in the physical channel by the Node B. Once these MIB segments have been sent in the physical channel, the updated SIB segments shall then be sent in the physical channel.

Only if the inclusion of each new IB segment in the BCCH schedule leads to a valid segment combination according to [18], the Node B shall accept the system information update.

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

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

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

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

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

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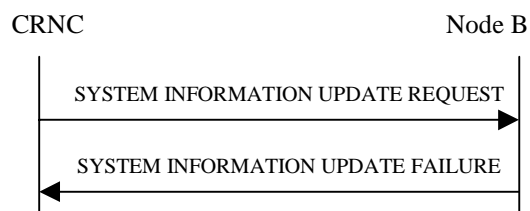
Figure 23: System Information Update procedure: Unsuccessful Operation

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

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

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

- after having handled a certain MIB/SIB information IE group repetition, an illegal BCCH schedule results;

- if a MIB/SIB information IE group repetition includes an *IB SG REP* IE or an *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a MIB/SIB information IE group repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated;

- if a MIB/SIB information IE group repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is no IB in the BCCH schedule with the same IB Type;

- if a MIB/SIB information IE group repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type but it is requested to be deleted from the BCCH schedule by an IB deletion indicated in a MIB/SIB information IE group repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated;

Possible cause values are:

Radio Network Layer Cause

- Insufficient physical channel resources

- Unknown C-ID

- SIB Origination in Node B not Supported

- BCCH scheduling error

Miscellaneous Cause

- Hardware failure

- Control Processing overload

- O&M Intervention

- Unspecified

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

8.2.16.4 Abnormal Conditions

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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
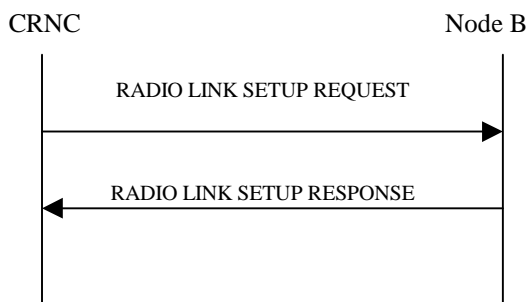
Figure 11: Radio Link Setup procedure: Successful Operation

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 *First RLS Indicator* IE indicates if the concerning RL shall be considered part of the first RLS established towards this UE. If the *First RLS indicator* IE is set to "first RLS", the Node B shall use a TPC pattern of n* "01" + "1" in the DL of the concerning RL and all RLs which are part of the same RLS, until UL synchronisation is achieved on the Uu. The parameter n shall be set equal to the value received in the *DL TPC pattern 01 count* IE in the Cell Setup procedure. The TPC pattern shall continuously be repeated but shall be restarted at the beginning of every frame with CFNmod4=0. For all other RLs, the Node B shall use a TPC pattern of all "1"'s in the DL until UL synchronisation is achieved on the Uu.]

[FDD - The *Diversity Control Field* IE indicates for each RL (except the first RL in the message) whether the Node B shall combine the concerned RL or not. If the *Diversity Control Field* IE indicates, "may be combined with already existing RLs", then Node B shall decide for either of the alternatives. If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other RL. Diversity combining is applied to Dedicated Transport Channels (DCH), i.e. it is not applied to the DSCHs. When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Info* IE with multiple *DCH Specific Info* IEs then, the Node B shall treat the DCHs in the *DCH Info* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [16]. If the QE-Selector is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].

For a set of co-ordinated DCHs the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [16]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [16]. If all DCHs have *QE-Selector* IE set to "non-selected" the Physical channel BER shall be used for the QE, ref. [16]].

[TDD - For USCHs with the *QE-Selector* IE set to "selected ", the Transport channel BER from that USCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected USCH the Physical channel BER shall be used for the QE, ref. [24]. If the QE-Selector is set to "non-selected ", the Physical channel BER shall be used for the QE in the UL data frames, ref. [24]].

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.

The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

[FDD - If the *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.]

[FDD - The Node B shall start the DL transmission using the initial DL power specified in the message on each DL channelisation code of the RL until either UL synchronisation is achieved for the RLS or a DL POWER CONTROL REQUEST message is received. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10] , chapter 5.2.1.2) with DPC MODE=0

and the power control procedure (see 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RL SETUP REQUEST message.].

[TDD - The Node B shall start the DL transmission using the initial DL power specified in the message on each DL channelisation code and on each Time Slot of the RL until the UL synchronisation is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], chapter 4.2.3.3), 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 - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the information about the Transmission Gap Pattern Sequences to be used when those are activated.]

[FDD- If the *Downlink compressed mode method* in one or more Transmission Gap Pattern Sequence is set to 'SF/2' in the RADIO LINK SETUP REQUEST message, the Node B shall use or not the alternate scrambling code as indicated for each DL Channelisation Code in the *Transmission Gap Pattern Sequence Code Information* IE.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the Node B shall immediatly activate the indicated Transmisson Gap Pattern Sequences. For each sequence the *TGCFN* refers to the latest passed CFN with that value. If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the Node B shall behave as specified in ref. [25].]

[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].

[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

```
        CRNC                                          Node B


                    RADIO LINK SETUP REQUEST


                    RADIO LINK SETUP FAILURE
```
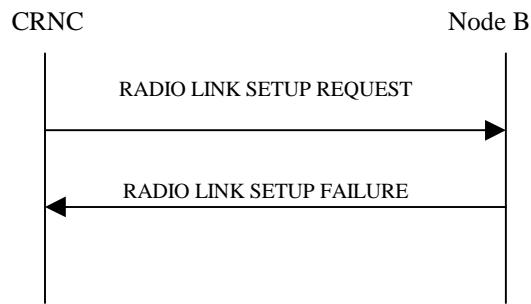
Figure 12: Radio Link Setup procedure: Unsuccessful Operation

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.

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

[FDD - If the value of the *Diversity Control Field* IE of one RL is 'Must', but the Node B cannot perform the requested combining, Node B shall indicate this with the cause value ' Combining Resources not available' in the RADIO LINK SETUP FAILURE message].

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

[FDD – If the Node B cannot provide the requested CM pattern sequences, the Node B shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message with the cause value "Invalid CM settings".]

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

- Combining Resources not available

- No Closed Loop Timing Adjustment Mode configured

- Invalid CM Settings.

Transport Layer Cause

- Transport Resources Unavailable

Protocol Cause

- Semantic error

Miscellaneous Cause

- O&M Intervention

- Unspecified

- Control processing overload

- HW failure

8.2.17.4 Abnormal Conditions

-

8.2.18 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

```
        CRNC                                          Node B

          │        PHYSICAL SHARED CHANNEL               │
          │        RECONFIGURATION REQUEST               │
          │─────────────────────────────────────────────▶│
          │                                              │
          │        PHYSICAL SHARED CHANNEL               │
          │        RECONFIGURATION RESPONSE              │
          │◀─────────────────────────────────────────────│
          │                                              │
```
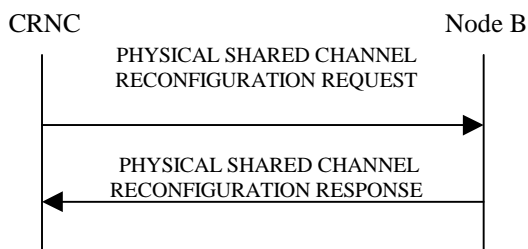
Figure 26: Physical Shared Channel Reconfiguration: Successful Operation

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

```
        CRNC                                          Node B

          │        PHYSICAL SHARED CHANNEL               │
          │        RECONFIGURATION REQUEST               │
          │─────────────────────────────────────────────▶│
          │                                              │
          │        PHYSICAL SHARED CHANNEL               │
          │        RECONFIGURATION FAILURE               │
          │◀─────────────────────────────────────────────│
          │                                              │
```
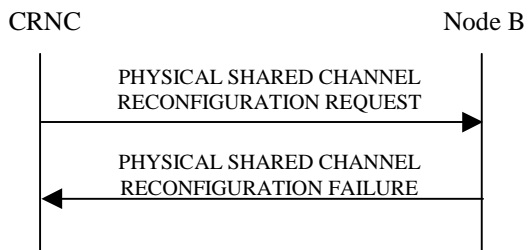
Figure 137: Physical Shared Channel Reconfiguration procedure: Unsuccessful Opreration

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 RECONGURATION REQUEST message is not existing in the Node B, it shall respond with the PHYSICAL SHARED CHANNEL RECONGURATION 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

CRNC   Node B

RADIO LINK ADDITION REQUEST

RADIO LINK ADDITION RESPONSE
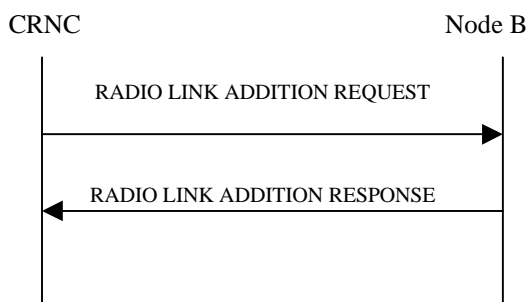
Figure: 28 Radio Link Addition procedure: Successful Operation

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

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

The *Diversity Control Field* IE indicates for each RL whether the Node B shall combine the new RL with existing RL(s) or not. If the *Diversity Control Field* IE indicates, "may be combined with already existing RLs", then Node B

shall decide for any of the alternatives. If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one of the other RL. When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with.

[FDD – 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 until either UL synchronisation is achieved for the RLS or a DL POWER REQUEST message is received. 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. No inner loop power control or balancing] shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], chapter 5.2.1.2) with DPC MODE=0 and the downlink power control procedure (see 8.3.7).].

[TDD – 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 and on each Time Slot of the RL when starting transmission until the UL synchronisation is achieved for the RL. 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. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], chapter 4.2.3.3).].

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.]

[FDD – If the RADIO LINK ADDITION REQUEST includes the *CM Deactivation Flag* IE with value "On", the Node B shall not activate any CM pattern sequence in the new RLs. In all the other cases (Flag set to "Off" or not present), the on going CM measurement (if existing) shall be applied also to the added RLs.]

[FDD- If the RADIO LINK ADDITION REQUEST contains the *Transmission Gap Pattern Sequence Code Information* IE Node B shall use or not the alternate scrambling code as indicated for each DL Channelisation Code.]

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

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

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

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

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

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

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

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

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

[FDD – After addition of the new RL, the UL out-of-sync algorithm defined in [10] shall use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

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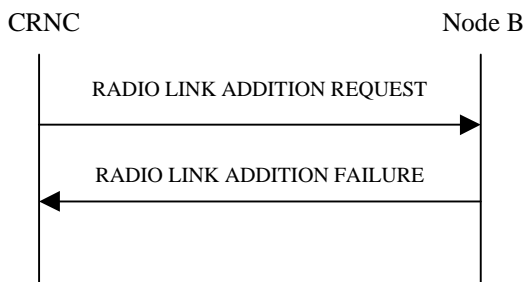
Figure 29: Radio Link Addition procedure: Unsuccessful Operation

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

If the value of the *Diversity Control Field* IE of one RL is 'Must', but the Node B cannot perform the requested combining, Node B shall indicate this with the cause value ' Combining Resources not available' in the RADIO LINK ADDITION FAILURE message.

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

[FDD - If the RADIO LINK ADDITION REQUEST contains the *CM Deactivation Flag* IE with the value "On", and at least one of the new RL is added in one cell that has the same UARCFN of at least one cell with an already existing RL, the Node B shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Invalid CM settings".]

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

- Combining Resources not available

- No Closed Loop Timing Adjustment Mode configured

- Invalid CM Settings.

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

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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
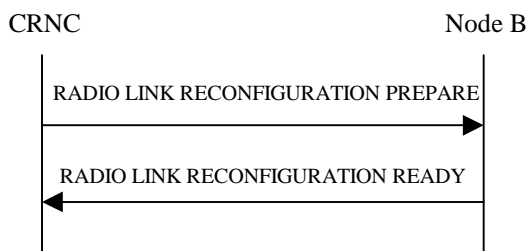
Figure 30: Synchronised Radio Link Reconfiguration procedure, Successful Operation

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 a *DCHs to Modify* IE with multiple *DCH Specific Info* IEs then the Node B shall treat the DCHs in the *DCHs to Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWS* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWE* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs 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 a *DCHs to Add* IE with multiple *DCH specific Info* IEs then, the Node B shall treat the DCHs in the *DCHs to Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [16]. If the QE-Selector is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16]].

For a set of co-ordinated DCHs the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [16]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [16]. If all DCHs have *QE-Selector* IE set to "non-selected" the Physical channel BER shall be used for the QE, ref. [16]].

[TDD - For USCHs with the *QE-Selector* IE set to "selected ", the Transport channel BER from that USCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected USCH the Physical channel BER shall be used for the QE, ref. [24]. If the QE-Selector is set to "non-selected ", the Physical channel BER shall be used for the QE in the UL data frames, ref. [24].]

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 or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHS in the new configuration.

The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

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.]

[FDD- If the RADIO LINK RECONFIGURATION PREPARE contains the *Transmission Gap Pattern Sequence Code Information* IE for any of the allocated DL Channelisation code, the Node B shall apply the new setting when new compressed mode measurement are activated.]

[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 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 the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes on the *UL DPCCH Structure* IE, group the Node B shall set the new Uplink DPCCH Structure to the new configuration.]

If the RADIO LINK RECONFIGURATION PREPARE includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a higher power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *UL SIR Target* IE, the Node B shall set the UL inner loop power control to the UL SIR target when the new configuration is being used.]

If the RADIO LINK RECONFIGURATION PREPARE includes the *Minimum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a lower power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Limited Power Increase* IE and the IE is set to 'Used', the Node B shall use Limited Power Increase ref. [10] section 5.2.1 for the inner loop DL power control in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Limited Power Increase* IE and the IE is set to 'Not Used', the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[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-information-response IE 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.

Compressed Mode Preparation:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE the Node B shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration.]

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
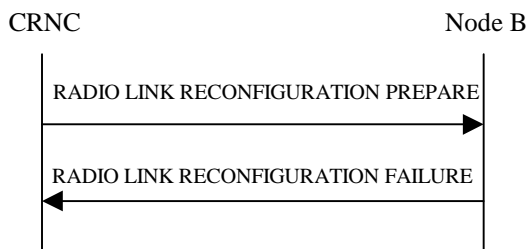
Figure 31: Synchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

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.

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

[FDD – If the Node B cannot provide the requested CM pattern sequences, the Node B shall regard the Radio Link Reconfiguration Procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message with the cause value "Invalid CM settings".]

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

- Invalid CM Settings.

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.

8.3.3.2 Successful Operation

CRNC   Node B

RADIO LINK RECONFIGURATION COMMIT
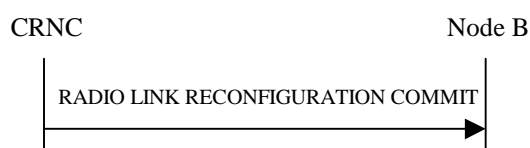
Figure 32:Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation

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. [FDD – The CFN shall be ignored by Node B if only Transmission Gap Pattern Sequence Information was included in the RL Reconfiguration.] When this procedure has been completed the Prepared Reconfiguration does not exist any more, see chapter 3.1.

[FDD - If the RADIO LINK RECONFIGURATION COMMIT includes the *Active Pattern Sequence Information* IE, the Node B shall deactivate all the ongoing Transmission Gap Pattern Sequences at the CM Configuration Change CFN. From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE group repetitions shall be started when the indicated TGCFN elapses. The *CM Configuration Change CFN* in the *Active Pattern Sequence Information* IE and *TGCFN* for each sequence refers to the next coming CFN with that value. If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the Node B shall behave as specified in ref. [25].]

8.3.3.3 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

CRNC   Node B

RADIO LINK RECONFIGURATION CANCEL
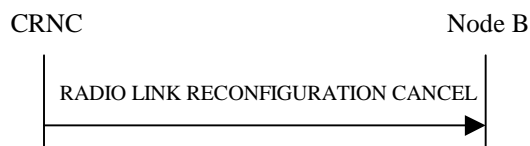
Figure 33:Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation

When receiving the RADIO LINK RECONFIGURATION CANCEL message from the CRNC, the Node B shall release the new configuration ([FDD - including the new Transmission Gap Pattern Sequence parameters (if existing)]) previously prepared by the Synchronised RL Reconfiguration Preparation procedure and continue using the old configuration. 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

CRNC   Node B

RADIO LINK RECONFIGURATION REQUEST

RADIO LINK RECONFIGURATION RESPONSE
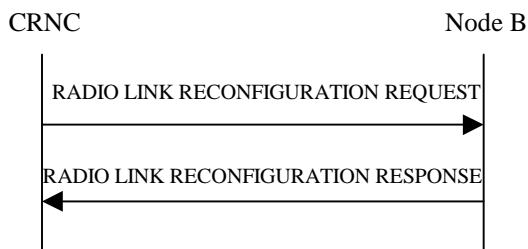
Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation

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 a *DCHs to Modify* IE with multiple *DCH Specific Info* IEs then the Node B shall treat the DCHs in the *DCHs to Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be modified, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs 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 a *DCHs to Add* IE with multiple *DCH Specific Info* IEs then the *DCH Combination Indicator* IE for a DCH to be added, the Node B shall treat the DCHs in

the *DCHs to Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Transport channel BER from that DCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [16]. If the QE-Selector is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16]].

For a set of co-ordinated DCHs the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" shall be used for the QE in the UL data frames, ref. [16]. If no Transport channel BER is available for the selected DCH the Physical channel BER shall be used for the QE, ref. [16]. If all DCHs have *QE-Selector* IE set to "non-selected" the Physical channel BER shall be used for the QE, ref. [16]].

[TDD - For USCHs with the *QE-Selector* IE set to "selected ", the Transport channel BER from that USCH shall be the base for the QE in the UL data frames. If no Transport channel BER is available for the selected USCH the Physical channel BER shall be used for the QE, ref. [24]. If the QE-Selector is set to "non-selected ", the Physical channel BER shall be used for the QE in the UL data frames, ref. [24]].

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 or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

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, the Node B shall apply the new TFCS in the Uplink of the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes on the *TFCS* IE for the DL, the Node B shall apply the new TFCS in the Downlink of the new configuration.]

If the RADIO LINK RECONFIGURATION REQUEST includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a higher power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.

If the RADIO LINK RECONFIGURATION REQUEST includes the *Minimum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a lower power on any Downlink Channelisation Code of the Radio Link once the new configuration is being used.

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Limited Power Increase* IE and the IE is set to 'Used', the Node B shall use Limited Power Increase ref. [10] section 5.2.1 for the inner loop DL power control in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Limited Power Increase* IE and the IE is set to 'Not Used', the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]

[FDD- If the RADIO LINK RECONFIGURATION REQUEST contains the *DL Code Information* IE *group* for any of the allocated DL Channelisation code, the Node B shall apply the new setting when new compressed mode measurement are activated.]

[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-information-response IE 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.

Compressed Mode Preparation:

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE the Node B shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode configuration.]

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
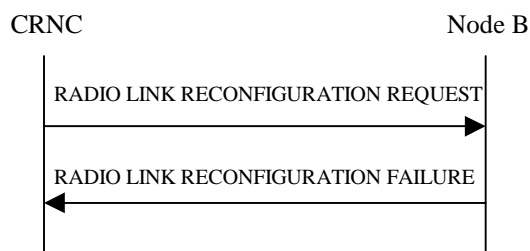
CRNC   Node B

RADIO LINK RECONFIGURATION REQUEST

RADIO LINK RECONFIGURATION FAILURE

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.

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

[FDD – If the Node B cannot provide the requested CM pattern sequences, the Node B shall regard the Radio Link Reconfiguration Procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message with the cause value "Invalid CM settings".]

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

- Invalid CM Settings.

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 may be initiated by the CRNC at any time when the Node B Communication Context exists, except when the CRNC has requested deletion of the last Radio Link for the Node B Communication Context.

8.3.6.2 Successful Operation

CRNC   Node B

RADIO LINK DELETION REQUEST

RADIO LINK DELETION RESPONSE
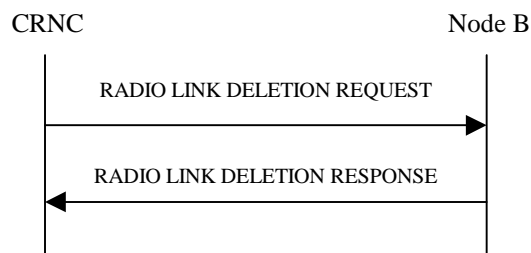
Figure 36: Radio Link Deletion procedure: Successful Operation

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

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

[FDD – After deletion of the RL, the UL out-of-sync algorithm defined in [10] shall use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

8.3.6.3 Unsuccessful Operation

-

8.3.6.4 Abnormal Conditions

-

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

CRNC Node B

DL POWER CONTROL REQUEST

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.

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 power balancing adjustment superimposed on the inner loop power control adjustment (see Ref. [10]) shall be such that:

$$\sum P_{bal} = (1-r)(P_{ref} - P_{init})$$ with an accuracy of ±0.5 dB

where the sum is performed over an adjustment period corresponding to a number of frames equal to the value of the *Adjustment Period* IE, *Pref* is the value of the *DL Reference Power* IE, *Pinit* is the power at the beginning of the adjustment period and *r* is given by the *Adjustment Ratio* IE.

The adjustment within one adjustment period shall in any case be performed with the constraints given by the *Max Adjustment Step* IE.

The power adjustments shall be repeated for every adjustment period, until a new DL POWER CONTROL REQUEST message is received or the RL is deleted.

8.3.7.3 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

CRNC   Node B

DEDICATED MEASUREMENT INITIATION
REQUEST

DEDICATED MEASUREMENT INITIATION
RESPONSE
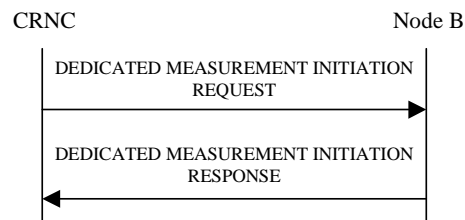
Figure 38: Dedicated Measurement Initiation procedure: Successful Operation

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 controlled via the Communication Control Port on which the DEDICATED MEASUREMENT INITIATION REQUEST message was received. 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.]

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

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

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

The physical layer measurement results are sampled once every measurement period. For most measurements the measurement period and the accuracy are defined in [22] / [23]. For those measurements not covered in [22] / [23], 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 [22]/[23])	See SIR measurement in [22]/[23]

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.

8.3.8.3 Unsuccessful Operation

```
CRNC                                              Node B

          DEDICATED MEASUREMENT INITIATION
                     REQUEST

          DEDICATED MEASUREMENT INITIATION
                     FAILURE
```
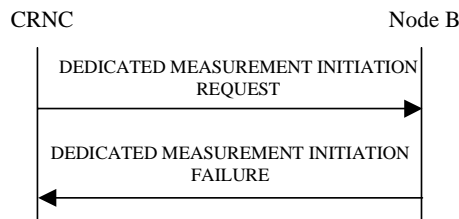
Figure 39: Dedicated Measurement Request procedure: Unsuccessful Operation

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 measurenment 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

- Measurement Temporarily not Available

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

CRNC   Node B

DEDICATED MEASUREMENT REPORT

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.

If the achieved measurement accuracy does not fulfil the given accuracy requirement, the Measurement not available shall be reported.

8.3.9.3   Abnormal Conditions

-

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

CRNC   Node B

DEDICATED MEASUREMENT
TERMINATION REQUEST
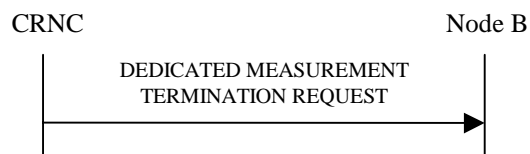
Figure 41: Dedicated Measurement Termination procedure: Successful Operation

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

```
       CRNC                                  Node B
        |   DEDICATED MEASUREMENT FAILURE       |
        |            INDICATION                 |
        |<──────────────────────────────────────|
        |                                       |
```

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. If the failed measurement was initiated with the *Node B Communication Context ID* IE set to the reserved value "All NBCC" the Node B shall terminate the measurement reporting of the measurement corresponding to the Measurement Id provided in the DEDICATED MEASUREMENT FAILURE INDICATION message.

8.3.11.3 Abnormal Conditions

-

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

```
       CRNC                                  Node B
        |                                       |
        |                                       |
        | RADIO LINK FAILURE INDICATION         |
        |<──────────────────────────────────────|
        |                                       |
        |                                       |
```
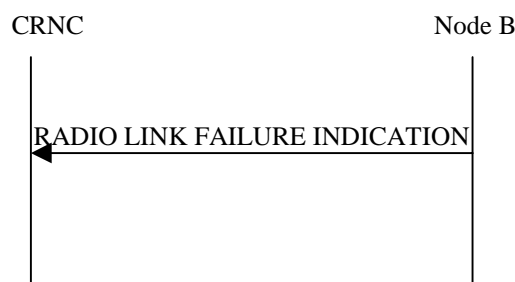
Figure 43: Radio Link Failure procedure: Successful Operation

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 [10] and [21]. [FDD – The algorithm in [10] shall use the

maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

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
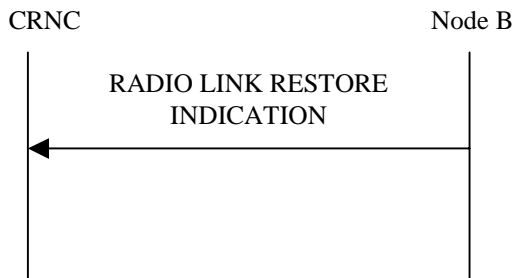
Figure 44: Radio Link Restoration procedure: Successful Operation

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]. [FDD – The algorithm in [10] shall use the minimum value of the parameters N_INSYNC_IND that are configured in the cells supporting the radio links of the RL Set].

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

8.3.13.3   Abnormal Condition

-

8.3.14   Compressed Mode Command [FDD]

8.3.14.1   General

The Compressed Mode Command procedure is used to activate the compressed mode in the Node B for one UE-UTRAN connection.

The Compressed Mode Command procedure shall not be initiated if a Prepared Reconfiguration exists, as defined in chapter 3.1.

8.3.14.2   Successful Operation

CRNC   Node B

COMPRESSED MODE COMMAND

Figure 47: Compressed Mode Command procedure, Successful Operation

The Node B shall deactivate all the ongoing Transmission Gap Pattern Sequences at the CM Configuration Change CFN requested by CRNC when receiving COMPRESSED MODE COMMAND message from the CRNC. From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE group repetitions shall be started when the indicated TGCFN elapses. The CM Configuration Change CFN in the *Active Pattern Sequence Information* IE and *TGCFN* for each sequence refers to the next coming CFN with that value.

If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in ref. [25].

8.3.14.3   Abnormal Conditions

-

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

Node B   CRNC
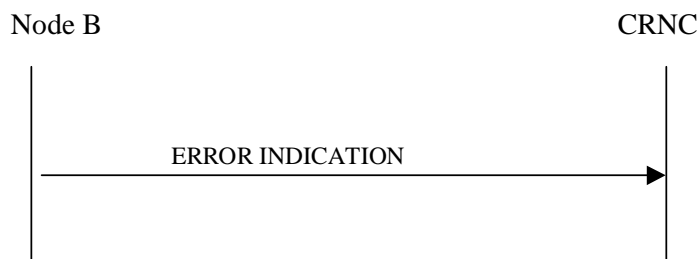
ERROR INDICATION

Figure 49: Error Indication procedure (Node B to CRNC): Successful Operation

CRNC   Node B
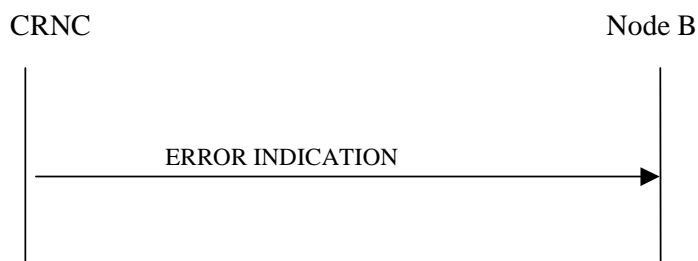
ERROR INDICATION

Figure 50: Error Indication procedure (CRNC to Node B): Successful Operation

8.4.1.3   Abnormal Conditions

-

9   Elements for NBAP communication

9.1   Message Functional Definition and Content

9.1.1   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.

9.1.2   Message Contents

9.1.2.1   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.

9.1.2.2 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.

9.1.3 COMMON TRANSPORT CHANNEL SETUP REQUEST

9.1.3.1 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 [7]: $_{S-CCPCH,k}$	–	
>>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		–	
>>Power Offset Information		1			–	
>>>PO1	M		Power Offset	Power offset for the TFCI bits	–	
>>>PO3	M		Power Offset	Power offset for the pilot bits	–	
>>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 Code	M		9.2.2.13		–	
>>>>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 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..<MaxnoofSlotFormatsPRACH>*			–	
>>>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		–	
>PCPCHes					YES	Reject
>>CPCH Parameters		*1*			–	
>>>Common Transport Channel ID	M				–	
>>>Transport Format Set	M			For the UL.	–	
>>>AP Preamble Scrambling Code	M		CPCH Scrambling Code Number		–	
>>>CD Preamble Scrambling Code	M		CPCH Scrambling		–	

			Code Number			
>>>TFCS	M			For the UL	–	
>>>CD Signatures	O		Preamble Signatures	Note: When not present, all CD signatures are to be used.	–	
>>>CD Sub Channel Numbers	C-CDSig				–	
>>>Puncture Limit	M			For the UL	–	
>>>CPCH UL DPCCH Slot Format	M			For UL CPCH message control part	–	
>>>UL SIR	M		UL SIR		–	
>>>Initial DL transmission Power	M		DL Power		–	
>>>Maximum DL Power	M		DL Power		–	
>>>Minimum DL Power	M		DL Power		–	
>>>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				–	
>>>N_Start_Message	M				–	
>>>N_EOT	M				–	
>>>Channel Assignment Indication	M				–	
>>>CPCH Allowed Total Rate	M				–	
>>>PCPCH Channel Information		*1..<maxnoofPCPCHs>*			–	
>>>>Common Physical Channel ID	M				–	
>>>>CPCH Scrambling Code Number	M			For UL PCPCH	–	
>>>>DL Scrambling Code	M			For DL CPCH message part	–	
>>>>FDD DL Channelisation Code Number	M			For DL CPCH message part	–	
>>>>PCP Length	M				–	
>>>>UCSM Information	C-NCA	*1*			–	
>>>>>Min UL Channelisation Code Length	M				–	
>>>>>NF_max	M				–	
>>>>>Channel Request Parameters		*0..<maxAPSig*			–	

		Num>				
>>>>>>AP Preamble Signature	M				–	
>>>>>AP Sub Channel Number	O				–	
>>>VCAM Mapping Information	C-CA	*1..<maxnoofLen>*		Refer to TS [18]	–	
>>>>Min UL Channelisation Code Length	M				–	
>>>>NF_max	M				–	
>>>>Max Number of PCPCHes	M				–	
>>>>SF Request Parameters		*1..<maxAPSigNum>*			–	
>>>>>AP Preamble Signature	M				–	
>>>>>AP Sub Channel Number	O				–	
>>>AP-AICH Parameters		*1*			–	
>>>>Common Physical Channel ID	M				–	
>>>>DL Scrambling Code	M				–	
>>>>FDD DL Channelisation Code Number	M				–	
>>>>AP-AICH Power	M		DL Power		–	
>>>>CSICH Power	M		DL Power	For CSICH bits at end of AP-AICH slot	–	
>>>>STTD Indicator	O				–	
>>>CD/CA-ICH Parameters		*1*			–	
>>>>Common Physical Channel ID	M				–	
>>>>DL Scrambling Code	M				–	
>>>>FDD DL Channelisation Code Number	M				–	
>>>>CD/CA-ICH Power	M		DL Power		–	
>>>>STTD Indicator	O				–	

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.
CDSig	The IE may be present if the Available CD Signatures is present.
CA	The IE must be present if the Channel Assignment Indication is set to 'CA Active'.
NCA	The IE must be present if the Channel Assignment Indication is set to 'CA Inactive'.

Range bound	Explanation
MaxnoofFACHs	Maximum number of FACHs that can be defined on a Secondary CCPCH.
MaxnoofPCPCHs	Maximum number of PCPCHs for a CPCH
MaxnoofLen	Maximum number of Min UL Channelisation Code Length
MaxnoofSlotFormatsPRACH	Maximum number of SF for a PRACH
MaxAPSigNum	Maximum number of AP Signatures.

9.1.3.2 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 *common physical channels to be configured*					YES	ignore
Secondary CCPCHs					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		*1..<ma xnoofS-CCPC Hs>*			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	*0..<ma xnoofF*			GLOBAL	reject

		ACHs>				
>>>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	*0..1*			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
ChoiceCh	One of the channels FACH or PCH or both must be present.

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

9.1.4 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		–	
FACH Parameters		*0..<ma xnoofF ACHs>*		The FACH Parameters may be combined with PCH Parameters	GLOBAL	ignore
>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 Parameters		*0..1*		The PCH Parameters may be combined with FACH Parameters	GLOBAL	ignore
>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 parameters		*0..1*		The RACH Parameters shall not be combined with FACH Parameters or PCH Parameters	GLOBAL	ignore
>Common transport channel ID	M		9.2.1.14		–	
>Binding ID	M		9.2.1.4		–	
>Transport layer address	M		9.2.1.63		–	
CPCH parameters		*0..1*		The CPCH Parameters shall not be combined with FACH Parameters or PCH Parameters or RACH Parameters	GLOBAL	ignore
>*Common transport channel ID*	M				–	
>*Binding ID*	M				–	
>*Transport layer address*	M				–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

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

9.1.5 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

9.1.6 COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST

9.1.6.1 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 reconfigured					YES	reject
>*Secondary CCPCH*					YES	reject
>>FACH parameters		*0..<maxFACHCell>*			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		*0..1*			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		*0..1*			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*					YES	reject
>>PRACH Parameters		*0..<MexPRACHCell>*			GLOBAL	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>Preamble Signatures	M		9.2.2.31		–	
>>>Allowed Slot Format Information		*0..<MaxnoofSlotFormatsPRACH>*			–	
>>>>RACH Slot Format	M		9.2.2.37		–	
>>>RACH Sub Channel Numbers	O		9.2.2.38		–	
>>AICH Parameters		*0..<MaxPR*			GLOBAL	reject

		ACHCell>				
>>>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.	–	
>CPCH					YES	reject
>>CPCH Parameters		*0..<maxno ofCPCHs>*			GLOBAL	reject
>>>Common Transport Channel ID	M				–	
>>>UL SIR	O				–	
>>>Initial DL transmission Power	O		DL Power		–	
>>>Maximum DL Power	O		DL Power		–	
>>>Minimum DL Power	O		DL Power		–	
>>AP-AICH Parameters		*0..<maxno ofCPCHs>*			GLOBAL	reject
>>>Common Physical Channel ID	M				–	
>>>AP-AICH Power	M		DL Power		–	
>>>CSICH Power	O		DL Power	For CSICH bits at end of AP-AICH slot	–	
>>CD/CA-ICH Parameters		*0..<maxno ofCPCHs>*			GLOBAL	reject
>>>Common Physical Channel ID	M				–	
>>>CD/CA-ICH Power	M		DL Power		–	

Range bound	Explanation
MaxFACHCell	Maximum number of FACHs that can be defined in a Cell
MaxnoofCPCHs	Maximum number of CPCHs that can be defined in a Cell
MaxPRACHCell	Maximum number of PRACHs and AICHe that can be defined in a Cell
MaxnoofSlotFormatsPRACH	Maximum number of SF for a PRACH

9.1.6.2   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
MaxFACHCell	Maximum number of FACHs that can be repeated in a Cell

9.1.7 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

9.1.8 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

9.1.9 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

9.1.10 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

9.1.11   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-*BlockNormal*				YES	reject

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

9.1.12   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

9.1.13   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

9.1.14   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

9.1.15   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		–	

9.1.16   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		–	

9.1.17 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..<maxSC PICHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	

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>>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..<maxSCCPCHCell>*			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..<maxRACHCell>*			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..<maxRACHCell>*			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		–	
>PCPCH Information		*0..<maxPC*			EACH	ignore

		PCHCell>				
>>Common Physical Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>CPCH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Transport Channel ID	M				–	
>>Resource Operational State	M				–	
>>Availability Status	M				–	
>AP-AICH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M					
>>Resource Operational State	M					
>>Availability Status	M					
>CD/CA-ICH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M					
>>Resource Operational State	M					
>>Availability Status	M					
>SCH Information		0..1			YES	ignore
>>Common Physical 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.. <maxCCPinNodeB>*			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.. <maxLocalCellinNodeB>*			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
MaxCPCHCell	Maximum number of CPCHes that can be defined in a Cell
MaxLocalCellinNodeB	Maximum number of Local Cells that can exist in the Node B
MaxPCPCHCell	Maximum number of PCPCHes that can be defined in a Cell
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

9.1.18 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		–	
>"CPCH"				FDD only	YES	reject
>>C-ID	M				–	
>>Common transport channel ID	M				–	
>>Spreading Factor	O			Minimum UL Channelisation Code Length	–	
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

9.1.19 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*				Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>"Cell"					YES	ignore
>>Common Measurement value	M		9.2.1.12		–	
>"RACH"					YES	ignore
>>Common Measurement Value	M		9.2.1.12		–	
>"CPCH"				FDD only	YES	Ignore
>>Common Measurement Value	M				–	
SFN	O			Common Measurement Time Reference	YES	ignore
Criticality Diagnostics	O		9.2.1.17		YES	ignore

9.1.20 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

9.1.21   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 *Measurement Object Type*				Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>"Cell"					YES	ignore
>>CHOICE *Measurement Availability Indicator*						
>>>"*Measurement Available*"					YES	ignore
>>>Common Measurement value	M		9.2.1.12		–	
>>>"*Measurement not Available*"			NULL		YES	ignore
>"RACH"					YES	ignore
>>CHOICE *Measurement Availability Indicator*						
>>>"*Measurement Available*"					YES	ignore
>>>Common Measurement Value	M		9.2.1.12		–	
>>>"*Measurement not Available*"			NULL		YES	ignore
>"CPCH"				FDD only	YES	Ignore
>>Common Measurement Value	M				–	
SFN	O			Common Measurement Time Reference	YES	ignore

9.1.22   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

9.1.23   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

9.1.24   CELL SETUP REQUEST

9.1.24.1   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 [14]	YES	reject
UARFCN	M		9.2.1.65	Corresponds to Nd [14]	YES	reject

Maximum transmission power	M		9.2.1.40		YES	reject
Closed Loop Timing Adjustment Mode	O				YES	reject
Primary scrambling code	M		9.2.2.34		YES	reject
Synchronisation Configuration		1			YES	reject
>N_INSYNC_IND	M				–	
>N_OUTSYNC_IND	M				–	
>T_RLFAILURE	M				–	
DL TPC pattern 01 count	M				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		–	
Limited power increase information		1			YES	reject
>Power_Raise_Limit	M				–	
>DL_power_averaging_window_size	M				–	

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

9.1.24.2 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 [15]	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
Synchronisation Configuration		1			YES	reject
>N_INSYNC_IND	M				–	
>N_OUTSYNC_IND	M				–	
>T_RLFAILURE	M				–	
DPCH Constant Value	M		Constant Value		YES	reject
PUSCH Constant Value	M		Constant Value		YES	reject
PRACH Constant Value	M		Constant Value		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		–	

9.1.25   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

9.1.26   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

9.1.27   CELL RECONFIGURATION REQUEST

9.1.27.1   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
Synchronisation Configuration		0,1			YES	reject
>N_INSYNC_IND	M				–	
>N_OUTSYNC_IND	M				–	
>T_RLFAILURE	M				–	
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..<*maxSCPICHCell*>			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.

9.1.27.2 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
Synchronisation Configuration		0,1			YES	reject
>N_INSYNC_IND	M				–	
>N_OUTSYNC_IND	M				–	
>T_RLFAILURE	M				–	
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
DPCH Constant Value	O		Constant Value		YES	reject
PUSCH Constant Value	O		Constant Value		YES	reject
PRACH Constant Value	O		Constant Value		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		–	

9.1.28 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

9.1.29 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

9.1.30 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

9.1.31 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

9.1.32 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		–	

ETSI

>>>Resource Operational State	M		9.2.1.52		–	
>>>Availability Status	M		9.2.1.2		–	
>>Cell Information		0.. <*maxCellin NodeB*>			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		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..<*maxSC PICHCell*>			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		9.2.1.14		–	
>>>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.. <maxFAC HCell>*			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.. <maxPRA 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.. <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		–	
>>PCPCH Information		*0..<maxPC PCHCell>*			EACH	ignore
>>>Common Physical Channel ID	M				–	
>>>Resource Operational State	M				–	
>>>Availability Status	M				–	
>>CPCH Information		*0.. <maxCPC HCell>*			EACH	ignore
>>>Common Transport Channel ID	M				–	

>>>Resource Operational State	M				–	
>>>Availability Status	M				–	
>>AP-AICH Information		*0.. <maxCPC HCell>*			EACH	ignore
>>>Common Physical Channel ID	M				–	
>>>Resource Operational State	M				–	
>>>Availability Status	M				–	
>>CD/CA-ICH Information		*0.. <maxCPC HCell>*			EACH	ignore
>>>Common Physical Channel ID	M				–	
>>>Resource Operational State	M				–	
>>>Availability Status	M				–	
>>SCH Information		0..1			YES	ignore
>>>Common Physical 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
MaxLocalCellinNodeB	Maximum number of Local Cells that can exist in the Node B
MaxCellinNodeB	Maximum number of C ID that can be configured in Node B
MaxCPCHCell	Maximum number of CPCHes that can be defined in a Cell
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
MaxPCPCHCell	Maximum number of PCPCHes that can be defined in a Cell
MaxPRACHCell	Maximum number of PRACHes and AICHes that can be defined in a Cell
MaxCCPinNodeB	Maximum number of communication control ports that can exist in the Node B
MaxConsumptionLaws	Maximum number of credit consumption laws.

9.1.33   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		–	

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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.. maxIB*			GLOBAL	reject
>IB Type	M		9.2.1.35	In one message, every IB Type can only be delated once and/or added once.	–	
>CHOICE IB *DeletionIndicator*						
>*NoDeletion*					YES	reject
>>SIB Originator	C-NotMIB		9.2.1.55		–	
>>IB SG REP	O		9.2.1.34		–	
>>Segment Information		*1.. maxIBSEG*			GLOBAL	reject
>>>IB SG POS	O		9.2.1.33		–	
>>>IB SG DATA	C – CRNCOrigi nation		9.2.1.32		–	
>Deletion			NULL			

Range bound	Explanation
1..maxIB	Maximum number of information Blocks supported in one message.
1..maxIBSEG	Maximum number of segments for one Information Block

Condition	Explanation
CRNCOrigination	The IE shall be present if *the SIB Originator* IE is set to 'CRNC'
NotMIB	This IE shall be present if the IB Type is not equal to "MIB"

9.1.34   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

ETSI

9.1.35 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

9.1.36 RADIO LINK SETUP REQUEST

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	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 DPCCH Slot Format	M		9.2.2.57		–	
> UL SIR Target	M		UL SIR 9.2.2.58		–	
>Diversity mode	M		9.2.29		–	
>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		–	
>Limited Power Increase	M				–	
DCH Information		1 to <maxnoof DCHs>			GLOBAL	reject
>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		-	
>DCH Specific Info		1..<maxno ofDCHs>			–	

>>DCH ID	M		9.2.1.20		–	
>>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		–	
>>QE-Selector	M		9.2.1.50A		–	
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		–	
>First RLS Indicator	M				–	
>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		–	
>>Transmission Gap Pattern Sequence Code Information	C-SF/2				–	
>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			
Transmission Gap Pattern Sequence Information	O				YES	reject
Active Pattern Sequence Information	O				YES	reject

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 *Diversity Mode* IE in *UL DPCH Information* group is "none"
SF/2	This IE is present only if the *Transmission Gap Pattern Sequence Information* IE is included and the indicated Downlink Compressed Mode method for at least one of the included Transmission Gap Pattern Sequence is set to "SF/2".

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.

9.1.36.2 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	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		92.3.23		–	
>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
>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		–	
>DCH Specific Info		*1..<maxno ofDCHs>*			–	
>>DCH ID	M		9.2.1.20		–	
>>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	–	
>>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		–	
>>QE-Selector	M		9.2.1.50A		–	
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	–	
>QE-Selector	M		9.2.1.50A		–	
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

9.1.37 RADIO LINK SETUP RESPONSE

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	The reserved value "All NBCC" shall not be used.	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 *diversity Indication*						
>>*Combining*					YES	ignore
>>>RL ID	M		9.2.1.53	Reference RL ID for the combining	–	
>>*Non Combining or First RL*					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 <NumofDSCH>			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.

9.1.37.2   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		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	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 .. <Maxnoof DSCHs>			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 .. <Maxnoof 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
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

9.1.38 RADIO LINK SETUP FAILURE

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
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	The reserved value "All NBCC" shall not be used	YES	ignore
Communication Control Port ID	O		9.2.1.15		YES	ignore
CHOICE *cause level*						
>*General*					YES	ignore
>>Cause	M					
>*RL specific*					YES	ignore
>>Unsuccessful RL Information Response		1 to <maxnoofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
>>Successful RL Information Response		0 to <maxnoofRLs–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 *diversity Indication*					–	
>>>>*Combining*					YES	ignore
>>>>>RL ID	M		9.2.1.53	Reference RL ID for the combining	–	
>>>>*Non Combining or First RL*					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 <NumofDSCH>			GLOBAL	Ignore
>>>>DSCH ID	M		9.2.1.27		–	
>>>>Binding ID	M		9.2.1.4		–	
>>>>Transport Layer	M		9.2.1.63		–	

Address						
>>>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

9.1.38.2   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
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
CHOICE *cause level*						
>*General*					YES	ignore
>>Cause	M					
>*RL specific*					YES	ignore
>>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

9.1.39 RADIO LINK ADDITION REQUEST

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
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	reject
Transaction ID	M		9.2.1.62		–	
Compressed Mode Deactivation Flag	O				YES	reject
RL Information		*1..<ma xnoofR L-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..*max noofDL Codes*			–	
>>DL Scrambling code	M		9.2.2.13		–	
>>FDD DL channelisation code number	M		9.2.2.14		–	
>>Transmission Gap Pattern Sequence Code Information	O				–	
>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 *Diversity Mode* IE in *UL DPCH Information* group is "none"

Range bound	Explanation
MaxnoofRL	Maximum number of RLs for one UE
MaxnoofDLCodes	Maximum number of DL code information

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
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	reject
Transaction ID	M		9.2.1.52		–	
UL CCTrCH Information		0 to <maxno CCTrCH>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
UL DPCH Information		0 to <maxnoOfDPCH>			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 Physilca 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 <maxno CCTrCH>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
DL DPCH information		0 to <maxnoOfDPCH>			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.

9.1.40 RADIO LINK ADDITION RESPONSE

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		–	
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 *diversity indication*					–	
>>*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
MaxnoofDCHs	Maximum number of DCHs per UE
MaxnoofRL	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		–	
RL Information response		1			YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Interference per Time Slot	M	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		–	
>Diversity Indication	M		9.2.2.8		–	
>CHOICE *diversity indication*						
>*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 .. <*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 DCHs per UE
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUDCHs	Maximum number of USCHs for one UE
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.1.41 RADIO LINK ADDITION FAILURE

9.1.41.1 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		–	
CHOICE *cause level*						
>*General*					YES	ignore
>>Cause	M					
>*RL specific*					YES	ignore
>>Unsuccessful RL Information Response		1..<*maxnoofRL-1*>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
>>Succcessful 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 *diversity indication*						
>>>>*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
MaxnoofDCHs	Maximum number of DCHs per UE
MaxnoofRL	Maximum number of RLs for one UE

9.1.41.2 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		–	
CHOICE *cause level*						
>*General*					YES	ignore
>>Cause	M					
>*RL specific*					YES	ignore
>>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

9.1.42 RADIO LINK RECONFIGURATION PREPARE

9.1.42.1 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	The reserved value "All NBCC" shall not be used.	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 Channelistion 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 DPCCH 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			
>Limited Power Increase	O				–	
DCHs to Modify		*0..<max noofDCHs>*			GLOBAL	reject
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>DCH Specific Info		*1..<max noofDCHs>*			–	
>>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		–	
DCHs to Add		*0..<max noofDCHs>*			GLOBAL	reject
>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		–	
>DCH Specific Info		*1..<max noofDC Hs>*			–	
>>DCH ID	M		9.2.1.20		–	
>>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		–	
>>QE-Selector	M		9.2.1.50A		–	
DCHs to Delete		*0..<max noofDC Hs>*			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
DSCH to modify		*0..<max noofDS CHs>*			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..<max noofDS CHs>*			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		*0..<max noofDS CHs>*			YES	reject
>DSCH ID	M		9.2.1.27		–	
RL Information		*0..<max noofRLs >*			EACH	reject
>RL ID	M		9.2.1.53		–	
>DL Code Information		*0..<max noofDL Codes<*			–	
>>DL Scrambling Code	O		9.2.2.12		–	
>>FDD DL Channelisation Code Number	O		9.2.2.14		–	
>>Transmission Gap Pattern Sequence Code Information	C-SF/2				–	
>Maximum DL Power	O		DL Power 9.2.1.21		–	
>Minimum DL Power	O		DL Power 9.2.1.21		–	
>SSDT Indication	O		9.2.2.47		–	
>SSDT Cell Identity	C–SSDTIndON		9.2.2.44		–	
Transmission Gap Pattern Sequence Information	O				YES	reject

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.
SF/2	This IE is present only if the *Transmission Gap Pattern Sequence Information* IE is included and the indicated Downlink Compressed Mode method for at least one of the included Transmission Gap Pattern Sequence is set to "SF/2'".

Range Bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofDSCHs	Maximum number of DSCHs for a UE.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxnoofDLCodes	Maximum number of Downlink Channelisation Codes.

9.1.42.2 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	The reserved value "All NBCC" shall not be used.	YES	reject
Transaction ID	M		9.2.1.62		–	
UL CCTrCH to Add		0.. \<maxno of CCTrCHs>			GLOBAL	reject
>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.. \<maxno of DPCHs >			GLOBAL	reject
>>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		–	
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	O				–	
>>Burst Type	O				–	
>>Midamble Shift	O				–	
>>Time Slot	O				–	
>>TDD Physical channel Offset	O				–	
>>Repetition Period	O				–	
>>Repetition Length	O				–	
>>TFCI Presence	O				–	
>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 to Add		0.. <maxno of CCTrC Hs			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>PunctureLimit	M		9.2.1.50		–	
>DL DPCH Information		0.. <maxno of DPCHs >			GLOBAL	reject
>>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 to Modify		0.. <maxno of CCTrC Hs			GLOBAL	reject
>CCTrCH ID	M				–	
>TFCS	O				–	
>TFCI Coding	O				–	
>PunctureLimit	O				–	

>DL 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				–	
>DL DPCH to modify		*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 DPCH to delete		*0.. \<maxno of DPCHs >*			GLOBAL	reject
>>DPCH ID	M				–	
DL CCTrCH to Delete		*0.. \<maxno of CCTrC Hs*			GLOBAL	reject
>CCTrCH ID	M				–	
DCHs to Modify		*0..\<max noofDC Hs>*			GLOBAL	reject
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>DCH Specific Info		*1..\<max noofDC Hs>*			–	
>>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		–	
DCHs to Add		0..<max noofDC Hs>			GLOBAL	reject
>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		–	
>DCH Specific Info		1..<max noofDC Hs>			–	
>>DCH ID	M		9.2.1.20		–	
>>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	–	
>>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		–	
DCHs to Delete		0..<max noofDC Hs>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
DSCH Information to modify		0 .. <Maxno of DSCHs >			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		0 .. <Maxno of 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		–	
>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		–	

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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		–	
>QE-Selector	M		9.2.1.50A		–	
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
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
Maxnoof DPCHs	Maximum number of DPCHs in one CCTrCH.
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUSCHs	Maximum number of USCHs for one UE

9.1.43 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 Information Response		*0..<max noofDCHs>*		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 Information Response		*0..<Max noofDSCHs>*			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 .. <Maxnoof 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
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUSCHs	Maximum number of USCHs for one UE

9.1.44 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		–	
CHOICE *cause level*						
>*General*					YES	ignore
>>Cause	M		9.2.1.6		YES	ignore
>*RL specific*					YES	ignore
>>RLs Causing Reconfiguration Failure		*0..<max noofRLs>*			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
MaxnoofRLs	Maximum number of RLs for a UE.

9.1.45 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	The reserved value "All NBCC" shall not be used.	YES	ignore
Transaction ID	M		9.2.1.62		–	
CFN	M		9.2.1.7		YES	ignore
Active Pattern Sequence Information	O				YES	ignore

9.1.46 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	The reserved value "All NBCC" shall not be used.	YES	ignore
Transaction ID	M		9.2.1.62		–	

9.1.47 RADIO LINK RECONFIGURATION REQUEST

9.1.47.1 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	The reserved value "All NBCC" shall not be used.	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			
>Limited Power Increase	O				–	
DCHs to Modify		*0..<maxnoofDCHs>*			GLOBAL	reject
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>DCH Specific Info		*1..<maxnoofDCHs>*			–	
>>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		–	
DCHs to Add		*0..<maxnoofDCHs>*			GLOBAL	reject
>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		–	
>DCH Specific Info		*1..<maxnoofDCHs>*			–	
>>DCH ID	M		9.2.1.20		–	
>>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		–	
>>QE-Selector	M		9.2.1.50A		–	
DCHs to Delete		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
DSCH to Modify		*0..<maxnoofDSCHs>*			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..<maxnoofDSCHs>*			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		*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		–	
>DL Code Information	C-SF/2	*0..<maxnoofDLCodes<*			–	
>>DL Scrambling Code	O				–	
>>FDD DL Channelisation Code Number	O				–	
>>Transmission Gap Pattern sequence Code Information	O				–	
Transmission Gap Pattern Sequence Information	O				YES	reject

Range Bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofDSCHs	Maximum number of DSCHs for a UE.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxnoofDLCodes	Maximum number of Downlink Channelisation Codes.

Condition	Explanation
SF/2	This IE group is present only if the *Transmission Gap Pattern Sequence Information* IE is included and the indicated Downlink Compressed Mode method for at least one of the included Transmission Gap Pattern Sequence is set to "SF/2'".

9.1.47.2 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	The reserved value "All NBCC" shall not be used.	YES	reject
Transaction ID	M		9.2.1.62		–	
UL CCTrCH to modify		0..<maxnoofCCTrCHs>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>Puncture Limit	O		9.2.1.50		–	
UL CCTrCH to delete		0..<maxnoofCCTrCHs>			EACH	notify
>CCTrCH ID	M				–	
DL CCTrCH to modify		0..<maxnoofCCTrCHs>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	O		9.2.1.58		–	
>Puncture Limit	O		9.2.1.50		–	
DL CCTrCH to delete		0..<maxnoofCCTrCHs>			EACH	notify
>CCTrCH ID	M				–	
DCHs to Modify		0..<maxnoofDCHs>			GLOBAL	reject
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>DCH Specific Info		1..<maxnoofDCHs>			–	
>>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		–	
DCHs to Add		0..<maxnoofDCHs>			GLOBAL	reject
>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		–	
>DCH Specific Info		*1..<maxnoofDCHs>*			–	
>>DCH ID	M		9.2.1.20		–	
>>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	–	
>>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		–	
>>QE-Selector	M		9.2.1.50A		–	
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 ..			GLOBAL	reject

		<Maxnoof USCHs>				
>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		–	
>QE-Selector	M		9.2.1.50A		–	
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	O		DL Power 9.2.1.21		–	
>Minimum Downlink Power	O		DL Power 9.2.1.21		–	
>Time slot ISCP Info		*0..<maxn oofDLts>*			–	
>>Time slot	M				–	
>>DL Time slot ISCP	M				–	

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUSCHs	Maximum number of USCHs for one UE
MaxnoofDLts	Maximum number of Downlink time slots per Radio Link

9.1.48 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		*0..<maxnoofRLs>*		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 Information Response		*0..<maxnoofDCHs>*		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 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 DCHs for a UE.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoodUSCHs	Maximum number of USCHs for one UE

9.1.49 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	The reserved value "All NBCC" shall not be used.	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
MaxnoofRLs	Maximum number of radio links for one UE

9.1.50 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

9.1.51 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	The reserved value "All NBCC" shall not be used.	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		YES	Ignore
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		YES	ignore
Adjustment Period	C-CommonOrIndividual		9.2.2.A		YES	ignore
Adjustment Ratio	C-CommonOrIndividual		9.2.2.B		YES	ignore

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

9.1.52 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	The reserved value "All NBCC" shall not be used when the Report characteristics type is set to "On-Demand".	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 *Dedicated Measurement Object Type*					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
MaxnoofRLs	Maximum number of individual RL's a measurement can be started on.
MaxnoofRLSets	Maximum number of individual RL Sets a measurement can be started on.

9.1.53 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 *Dedicated Measurement Object Type*				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		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
MaxnoofRLs	Maximum number of individual RL's the measurement can be started on.
MaxnoofRLSets	Maximum number of individual RL Sets a measurement can be started on.

9.1.54 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

9.1.55 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 *Dedicated Measurement Object Type*				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		9.2.1.53		–	
>>>DPCH ID	O		9.2.3.5		–	
>>>CHOICE *Measurement Availability Indicator*						
>>>>"*Measurement Available*"					YES	ignore
>>>>>Dedicated Measurement Value	M		9.2.1.24		–	
>>>>"*Measurement not Available*"			NULL		YES	ignore
>"RLS" or "ALL RLS"						
>>RL Set Information		1..<maxnoofRLSets>				
>>>RL Set ID	M		9.2.1.39			
>>>CHOICE *Measurement Availability Indicator*						
>>>>"*Measurement Available*"					YES	ignore
>>>>>Dedicated Measurement Value	M		9.2.1.24			
>>>>"*Measurement not Available*"			NULL		YES	ignore
CFN	O		9.2.1.7	Dedicated Measurement Time Reference	YES	ignore

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

9.1.56 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	The reserved value "All NBCC" shall only be used if this value was used when initiating the measurement.	YES	ignore
Transaction Id	M		9.2.1.62		–	
Measurement Id	M		9.2.1.42		YES	ignore

9.1.57 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

9.1.58 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 *Reporting Object*	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
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofRLSets	Maximum number of RL Sets for one UE.

9.1.59   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 *Reporting Object*	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
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofRLSets	Maximum number of RL Sets for one UE.

9.1.60   COMPRESSED MODE COMMAND [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	The reserved value "All NBCC" shall not be used.	YES	ignore
Transaction ID	M		9.2.1.62		–	
CFN	M		9.2.1.7		YES	ignore
Active Pattern Sequence Information	M				YES	ignore

9.1.61 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	The reserved value "All NBCC" shall not be used.	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 onlypresent 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.

9.1.62 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		0..<maxnoof PDSCHSets>			GLOBAL	reject
>PDSCH Set Id	M		9.2.3.11		-	
>PDSCH Information		0..<maxnoof PDSCH>			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		0..<maxnoof PDSCHSets>			GLOBAL	reject
>PDSCH Set Id	M		9.2.3.11		-	
>PDSCH Information		0..<maxnoof PDSCH>			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		*0..<maxnoof PDSCHSets >*			GLOBAL	reject
>PDSCH Set Id	M		9.2.3.11		-	
PUSCH Sets to add		*0..<maxnoof PUSCHSets >*			GLOBAL	reject
>PUSCH Set Id	M		9.2.3.13		-	
>PUSCH Information		*0..<maxnoof PUSCH>*			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		*0..<maxnoof PUSCHSets >*			GLOBAL	reject
>PUSCH Set Id	M		9.2.3.13		-	
>PUSCH Information		*0..<maxnoof PUSCH>*			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		*0..<maxnoof PUSCHSets >*			GLOBAL	reject
>PUSCH Set Id	M		9.2.3.13		-	

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.

9.1.63 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

9.1.64 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		-	
CHOICE *cause level*						
>*General*					YES	ignore
>>Cause	M					
>Set specific					YES	ignore
>>Unsuccessful DL Shared channel set		0..<maxnoof PDSCHSets>			EACH	ignore
>>>PDSCH Set ID	M				-	
>>>Cause	M		9.2.1.6		YES	ignore
>>Unsuccessful UL Shared channel set		0..<maxnoof PUSCHSets>			EACH	ignore
>>>PUSCH Set ID	M				**-**	
>>>Cause	M				**-**	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
Maxnoof PDSCH Sets	Maximum number of PDSCH Sets in a cell.
Maxnoof PUSCH Sets	Maximum number of PUSCH Sets in a cell.

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

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..511))	All SFN values in which MIB may be mapped are allowed. The tabular description is presented in [18].

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 *Cause group*				
>*Radio Network Layer*				
>Radio Network Layer Cause	M		Enumerated (unknown C-ID, Cell not available, Power level not supported, UL scrambling code already in use, DL radio resources not available, UL radio resources not available, RL Already Activated/allocated, Node B Resources Unavailable, Insufficient physical channel resources, Measurement not supported for the object, Combining Resources not available, Reconfiguration not allowed, Requested configuration not supported, Synchronization failure, Priority transport channel established,SIB Origination in Node B not Supported, No Closed Loop Timing Adjustment Mode configured, Unspecified, BCCH scheduling error, Measurement Temporarily not Available, Invalid CM Setting, …)	
>*Transport Layer*				
>Transport Layer Cause	M		Enumerated (Transport link failure, Transmission port not available, Transport resource unavailable, Unspecified, …)	
>*Protocol*				
>Protocol Cause			Enumerated (Transaction not allowed, Transfer syntax error, Abstract syntax error (reject), Abstract syntax error (ignore and notify), Message not compatible with receiver state, Semantic error, Unspecified, …)	
>*Misc*				
>Miscellaneous Cause	M		Enumerated (Control processing overload Hardware failure, O&M intervention, Not enough user plane processing resources,	

ETSI

			Unspecified, …)	

9.2.1.7 CFN

Connection Frame Number for the radio connection, see ref. [17].

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.

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.

9.2.1.9 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)	

9.2.1.10 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, CPCH,…)	

9.2.1.11 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, Acknowledged PCPCH Access Preambles, Detected PCPCH Access Preambles, …)	

9.2.1.12 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 *MeasValue*		INTEGER(0..100)	According to mapping in [4] and [5]
>RSSI Value	C *MeasValue*		INTEGER(0..621)	According to mapping in [4] and [5]
>Acknowledged RA tries Value	C *MeasValue*		INTEGER(0..240, …)	The number of L1 acknowledged random access tries per every 20 ms period.
>Timeslot ISCP (TDD only)	C *MeasValue*		INTEGER(0..81)	According to mapping in [5]
>Acknowledged PCPCH Access Preambles (FDD only)	C *MeasValue*		INTEGER(0..15)	According to mapping in [4]
>Detected PCPCH Access Preambles (FDD only)	C *MeasValue*		INTEGER(0..240)	According to mapping in [4]

Condition	Explanation
MeasValue	Only one measurement value can be present at the same time.

9.2.1.13 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)	

9.2.1.14   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)	

9.2.1.15   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)	

9.2.1.16   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.

9.2.1.17 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, 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 or missing IE
>Repetition Number	O		INTEGER (0..255)	The repetition number of the not understood IE if applicable

Range bound	Explanation
maxnooferrors	Maximum no. of IE errors allowed to be reported with a single message.

9.2.1.18 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)	

9.2.1.19 DCH Combination Indicator

Void

9.2.1.20 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)	

9.2.1.21 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

9.2.1.22 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,…)	

9.2.1.23 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, Rx Timing Deviation, Round Trip Time,…)	RSCP, Rx Timing Deviation are used by TDD only, Round Trip Time is used by FDD only.

Note. For definitions of the measurement types refer to [4] and [5].

9.2.1.24 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 *MeasValue*		INTEGER(0. .63)	According to mapping in [4] and [5]
>SIR error Value	C *MeasValue*		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 *MeasValue*		INTEGER(0. .127)	According to mapping in [4] and [5]
>RSCP	C *MeasValue*		INTEGER(0. .81)	According to mapping in [5]
>Rx Timing Deviation	C MeasValue		INTEGER(0. .2047)	According to mapping in [5]
>Round Trip Time	C *MeasValue*		INTEGER(0. .8191)	According to mapping in [4]

Condition	Explanation
MeasValue	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.

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

9.2.1.26 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)	

9.2.1.27   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)	

9.2.1.28   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

9.2.1.29   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

9.2.1.30   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

9.2.1.31   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

9.2.1.32   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].

9.2.1.33   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]

9.2.1.34 IB_SG_REP

Repetition distance for an Information Block segment. The segment shall be transmitted when SFN mod IB_SG_REP = IB_SG_POS.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IB SG REP			ENUMERATED (4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048)	Repetition period for the IB segment in frames

9.2.1.35 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, …)	

9.2.1.36 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 use the limited power increase algorithm as specified in [10], Chapter 5.2.

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

9.2.1.38 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 …268435455)	

9.2.1.39 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…500)	dBm, granularity 0.1 dB 0: 0 dBm 1: 0.1 dBm … 499: 49.9 dBm 500: 50.0 dBm

9.2.1.40 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,..500)	Unit dBm Granularity 0.1 dB 0: 0 dBm 1: 0.1 dBm … 499: 49.9 dBm 500: 50.0 dBm

9.2.1.40A Measurement Availability Indicator

Indicates if measurement is available or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Measurement Availability Indicator			ENUMERATED(measurement available, measurement not available)	

9.2.1.41 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)	

9.2.1.42 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.

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
RSSI	*C – Threshold*		INTEGER(0 ..620)	0: 0 dB 1: 0.1 dB 2: 0.2 dB … 620: 62dB
Transmitted Carrier Power	*C – Threshold*		INTEGER(0 ..100)	According to mapping in [4] and [5]
Acknowledged RA tries	*C – Threshold*		INTEGER(0 ..240,…)	The number of L1 acknowledged random access tries per every 20 ms period.
Timeslot ISCP	*C – Threshold*		INTEGER(0 ..80)	0: 0 dB 1: 0.5 dB 2: 1 dB … 80: 40dB
SIR	*C – Threshold*		INTEGER(0 ..62)	0: 0 dB 1: 0.5 dB 2: 1 dB … 62: 31dB
SIR Error	*C – Threshold*		INTEGER(0 ..124)	0: 0 dB 1: 0.5 dB 2: 1 dB … 124: 62 dB
Transmitted Code Power	*C – Threshold*		INTEGER(0 ..112,…)	0: 0 dB 1: 0.5 dB 2: 1 dB … 112: 56 dB
RSCP	*C – Threshold*		INTEGER(0 ..80)	0: 0 dB 1: 0.5 dB 2: 1 dB … 80: 40dB
Round Trip Time	*C – Threshold*		INTEGER(0 ..8190)	0: 0 chips 1: 0.25 chips 2: 0.5 chips … 8190: 2047.5 chips
Acknowledged PCPCH Access Preambles	*C – Threshold*		INTEGER(0 ..15)	According to mapping in [4] (FDD only)
Detected PCPCH Access Preambles	*C – Threshold*		INTEGER(0 ..240)	According to mapping in [4] (FDD only)

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

9.2.1.44 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	*C – Threshold*		INTEGER(0..621)	According to mapping in [4] and [5]
Transmitted Carrier Power	*C – Threshold*		INTEGER(0..100)	According to mapping in [4] and [5]
Acknowledged RA tries	*C – Threshold*		INTEGER(0..240,…)	The number of L1 acknowledged random access tries per every 20 ms period.
Timeslot ISCP	*C – Threshold*		INTEGER(0..81)	According to mapping in [5] (TDD only)
SIR	*C – Threshold*		INTEGER(0..63)	According to mapping in [4] and [5]
SIR Error	*C – 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	*C – Threshold*		INTEGER(0..127)	According to mapping in [4] and [5]
RSCP	*C – Threshold*		INTEGER(0..81)	According to mapping in [5] (TDD only)
Rx Timing Deviation	*C - Threshold*		INTEGER(0..2047)	According to mapping in [5] (TDD only)
Round Trip Time	*C – Threshold*		INTEGER(0..8191)	According to mapping in [4] (FDD only)
Acknowledged PCPCH Access Preambles	*C – Threshold*		INTEGER(0..15)	According to mapping in [4] (FDD only)
Detected PCPCH Access Preambles	*C – Threshold*		INTEGER(0..240)	According to mapping in [4] (FDD only)

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

9.2.1.45 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)	

9.2.1.46 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	M	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 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 FAILURE, RL FAILURE, RL RESTORATION, COMPRESSED MODE COMMAND, ERROR INDICATION, …)	
>>Ddmode	M		ENUMERATED (FDD, TDD, Common)	Common = common to FDD and TDD.
>Type of Message	M		ENUMERATED (Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.1.47 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)	

9.2.1.47A   N_INSYNC_IND

This parameter defines the number of successive in-sync indications after which the Node B shall trigger the Radio Link Restore procedure (see also [10] and [21]).

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
N_INSYNC_IND			Integer (1, 2, .., 256)	

9.2.1.47B   N_OUTSYNC_IND

This parameter defines the number of consecutive out-of-sync indications after which the timer T_RLFAILURE shall be started (see also [10] and [21]).

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
N_OUTSYNC_IND			Integer (1, 2, .., 256)	

9.2.1.48   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).

9.2.1.49   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)	

9.2.1.50   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%

9.2.1.50A 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, non-selected)	

9.2.1.51 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 *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"

9.2.1.52   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].

9.2.1.53   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)	

9.2.1.53A SFN

System Frame Number of the cell, see ref. [17].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SFN			Integer (0..4095)	

9.2.1.54 SIB Deletion Indicator

Void.

9.2.1.55 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)	

9.2.1.56 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

9.2.1.56A T_RLFAILURE

The Radio Link Failure procedure shall be triggered after a period of time T_RLFAILURE has elapsed with a persisting out-of-sync indication (see also [10] and [21]).

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

9.2.1.57 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)	

9.2.1.58 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(field2)). The CTFC(field2) 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(field2) 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(field2) is spelt out explicitly for each value of TFCI (field2)

]

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Method #2 - Explicit

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE *DSCH*				
>*No split in TFCI*				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)	Integer number calculated according to [18]
>>>CHOICE Gain Factors	C-PhysChan			
>>>>Signalled Gain Factors				
>>>>>Gain Factor β_C	M		Integer (0..15)	For UL DPCCH or control part of PRACH or control part of PCPCH in FDD; mapping in accordance to [9]
>>>>>Gain Factor β_D	M		Integer (0..15)	For UL DPDCH or data part of PRACH or data part of PCPCH in FDD: mapping in accordance to [9]
>>>>>Reference TFC nr	O		Integer (0..3)	If this TFC is a reference TFC, this IE indicates the reference number
>>>>Computed Gain Factors				
>>>>>Reference TFC nr	M		Integer (0..3)	Indicates the reference TFC to be used to calculate the gain factors for this TFC
>*There is a split in the TFCI*				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_Combs>		The first instance of the parameter *Transport format combination_DCH* corresponds to TFCI (field 1) = 0, the second to TFCI (field 1) = 1 and so on.
>>>CTFC(field1)	M		Integer(0..MaxCTFC)	Integer number calculated according to [18]. 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(field2) applies
>>>>>>CTFC(field 2)	M		Integer(0..MaxCTFC)	Integer number calculated according to [18]. 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 *Transport format combination_DSCH* corresponds to TFCI (field2) = 0, the second to TFCI (field 2) = 1 and so on.
>>>>>CTFC(field2)	M		Integer(0..MaxCTFC)	Integer number calculated according to [18]. 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 or PCPCH channel in FDD, not when the TFCS is used for other physical channels.

Range bound	Explanation
MaxnoofTFCs	The maximum number of Transport Format Combinations.
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(field2) 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]

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.

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 (0..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				
>>>2nd 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"
TTIdynamic	This IE is mandatory if not defined as semistatic parameter. Otherwise it is absent.
TTIsemistatic	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.
MaxRM	Maximum number that could be set as rate matching attribute for a transport channel.
MaxTTIcount	The amount of different TTI that are possible for that transport format.

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.

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

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.

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

9.2.1.62 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)	

9.2.1.63 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.

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

9.2.1.65 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] section 5.4 and [15])

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

9.2.1.66 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(0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19)	

9.2.1.67 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.

9.2.2 FDD specific parameters

9.2.2.A Active Pattern Sequence Information

Defines the parameters for the downlink compressed mode gap pattern sequence activation. For details see [18].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CM Configuration Change CFN	M		CFN	Defines when the old Active pattern sequences, if active, shall be terminated. From this moment on, the new sequences are activated at the given TGCFN .
Transmission Gap Pattern Sequence Status		0 to <MaxTGPS>		
>TGPSI	M		Integer(1..<MaxTGPS>)	If the group is not present, none of the pattern sequences are activated.
>TGPRC	M		Integer (0..63)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence. 0=Infinity
>TGCFN	M		CFN	Connection Frame Number of the first frame of the first pattern within the Transmission Gap Pattern Sequence.

Range bound	Explanation
MaxTGPS	Maximum number of active pattern sequences. Value 6.

9.2.2.B   Adjustment Period

Adjustment Period IE defines the period to be used for power balancing.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Adjustment Period			INTEGER (1 .. 300)	Frames

9.2.2.C   Adjustment Ratio

Adjustment Ratio IE *(Radj)* defines the convergence rate used for the associated Adjustment Period.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Adjustment Ratio			INTEGER (0 .. 100)	The Adjustment Ratio is given with a granularity of 0.01 0 -> 0.00 1 -> 0.01 ... 100 -> 1.00

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].

9.2.2.1A   AP Preamble Signature

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
AP Preamble Signature			INTEGER (0..15)	Described in [9]

9.2.2.1B   AP Sub Channel Number

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
AP Sub Channel Number			INTEGER (0..11)	Described in [10]

9.2.2.1C   CD Sub Channel Numbers

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
CD Sub Channel Numbers			BIT STRING (12)	Bit 0=Sub Channel Number 0 Bit 1=Sub Channel Number 1 … Bit 11=Sub Channel Number 11 [10]

9.2.2.1D   Channel Assignment Indication

The Channel Assingment Indication indicates whether CA is active or inactive. When CA is active, CPCH is in Versatile Channel Assingment Method (VCAM) mode and when CA is inactive, CPCH is in UE Channel Selection Method (UCSM) mode. In VCAM mode (CA active), CA message in CD/CA-ICH shall be sent.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Channel Assignment Indication			ENUMERAT ED (CA Active, CA Inactive)	

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

9.2.2.2A   Closed Loop Timing Adjustment Mode

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

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

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
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)	

9.2.2.3A   Compressed Mode Deactivation Flag

Compressed Mode Deactivation Flag indicates whether Compressed Mode shall be deactivated or not in the new RL.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Compressed Mode Deactivation flag			ENUMERATED(On, Off)	On = deactivate.

9.2.2.4   Compressed Mode Method

Defines the method for generating the downlink compressed mode gap, as described in [8].

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

9.2.2.4A   CPCH Allowed Total Rate

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CPCH Allowed Total Rate			ENUMERATED (15, 30, 60, 120, 240, 480, 960, 1920, 2880, 3840, 4800, 5760)	Channel Symbol Rate (ksps)

9.2.2.4B   CPCH Scrambling Code Number

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
CPCH Scrambling Code Number			INTEGER (0..79)	Described in [9]

9.2.2.4C CPCH UL DPCCH Slot Format

Indicates the slot format used in UL CPCH message control part, accordingly to [7]

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL DPCCH slot format			INTEGER (0..2)	

9.2.2.5 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".

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)	

9.2.2.7 Diversity Control Field

Void.

9.2.2.8 Diversity Indication

Void.

9.2.2.9 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)	

9.2.2.10 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, accordingly to [7].

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

9.2.2.11 DL frame type

This parameter defines if frame structure type 'A' or 'B' shall be used in downlink compressed mode. This is defined in [8].

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)	

9.2.2.12A DL_power_averaging_window_size

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL_power_averaging_window_size			INTEGER (1..60)	1-60 time slots, step size 1 slot

9.2.2.13 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

9.2.2.13A   DL TPC pattern 01 count

The *DL TPC pattern 01 count* IE contains the value of the parameter n, which is used for determining the DL TPC pattern on Radio Links marked with "first RLS" by the *First RLS indicator* IE before UL synchronisation is achieved.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL TPC pattern 01 count			INTEGER(0...30,…)	

9.2.2.14   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

9.2.2.15   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 [7]

9.2.2.16   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)	

9.2.2.16A   First RLS Indicator

The First *RLS Indicator* IE indicates if a specific Radio Link and all Radio Links which are part of the same Radio Link Set, shall be considered as the first radio links established towards the UE or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
First RLS Indicator			ENUMERATED (first RLS, not first RLS)	

9.2.2.17   Gap Period

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

9.2.2.18   Gap Position Mode

The gap position can be fixed or adjustable, as defined in [8].

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

9.2.2.19   Max Adjustment Period

Void.

9.2.2.20   Max Adjustment Step

Defines the maximum allowed value for the change of DL power level during a certain number of slots that can be utilised by the downlink power balancing algorithm. *Max Adjustment Step* IE defines a time period, in terms of number of slots, in which the accumulated power adjustment shall be maximum 1dB. This value does not include the DL inner loop PC adjustment.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Max Adjustment Step			INTEGER (1 .. 10)	Slots

9.2.2.20A   Max Number of PCPCHes

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Max Number of PCPCHes			INTEGER(1..64)	

9.2.2.21   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)	

9.2.2.22 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)	

9.2.2.23 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)	

9.2.2.23A N_EOT

The N_EOT is defined as number of End of Transmission for release of PCPCH transmission.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
N_EOT			INTEGER (0..8)	TTI

9.2.2.23B NF_max

The NF_max is defined as maximum number of Frame in a PCPCH message data part.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
NF_max			INTEGER (1..64)	

9.2.2.23C N_Start_Message

The N_Start_Message is defined as number of Frames for start message of DL DPDCHes for a CPCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
N_Start_Message			INTEGER (1..8)	

9.2.2.24 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'

9.2.2.24A PCP Length

Indicates CPCH power control preamble length.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PCP Length			ENUMERAT ED(0,8)	

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) va 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)

Information Element/Group name	Presence	Range	IE type and reference	Semantics description
DL Scrambling Code	M		INTEGER	Scrambling code on which

			(0..15)	PDSCH is transmitted. 0= Primary scrambling code of the cell 1…15 = Secondary scrambling code

Choice *signalling method*				
>*code range*				
>>**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]
>>Code number	M		Integer(0..maxCodeNumComp-1)	PDSCH code stop, Numbering as described in [18]
>*TFCI range*				
>>**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]
>*Explicit*				
>>**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]

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.

9.2.2.26   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

9.2.2.27   Power Adjustment Type

Defines the characteristic of the power adjustment.

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

9.2.2.28   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].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Control Mode			ENUMERAT ED (0, 1,..)	

9.2.2.29   Power Offset

This IE defines a power offset relative to the Downlink transmission power of a DPCH or a Secondary CCPCH.

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

9.2.2.29A   Power_Raise_Limit

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power_Raise_Limit			INTEGER (0..10)	0-10 dB, step size 1 dB

9.2.2.30   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].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Resume Mode			ENUMERATED (0, 1,..)	Described in [10]

9.2.2.31   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]

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

9.2.2.34   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)	

9.2.2.35 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

Void

9.2.2.37 RACH Slot Format

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RACH Slot Format			ENUMERATED(0..3, ...)	See [7].

9.2.2.38 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.

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

9.2.2.40 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)	

9.2.2.41 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)	

9.2.2.42 Scrambling Code Number

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Scrambling Code Word Number			INTEGER (0..15)	Identification of scrambling code see Ref. [9].

9.2.2.43 Secondary CCPCH Slot Format

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

9.2.2.44 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)	

9.2.2.45 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)	

9.2.2.46 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).	

9.2.2.47 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)	

9.2.2.48 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)	

9.2.2.49 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]

9.2.2.50 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'

9.2.2.51 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

9.2.2.52 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			ENUMERATED (3,4,7,10,14)	Slot

9.2.2.53 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)	

9.2.253A   Transmission Gap Pattern Sequence Information

Defines the parameters for the downlink compressed mode gap pattern sequence. For details see [18].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transmission gap pattern Sequence Information		1 to <MaxTGPS>		
>TGPSI	M		Integer(1..< MaxTGPS>)	Transmission Gap Pattern Sequence Identifier Establish a reference to the compressed mode pattern sequence. Up to <MaxTGPS> simultaneous compressed mode pattern sequences can be used.
>TGSN	M		Integer (0..14)	Transmission Gap Starting Slot Number The slot number of the first transmission gap slot within the TGCFN.
>TGL1	M		Integer(1..14)	The length of the first Transmission Gap within the transmission gap pattern expressed in number of slots
>TGL2	O		Integer (1..14)	The length of the second Transmission Gap within the transmission gap pattern. If omitted, then TGL2=TGL1.
>TGD	M		Integer (0, 15.. 269)	Transmission gap distance indicates the number of slots between the starting slots of two consecutive transmission gaps within a transmission gappattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 =undefined).
>TGPL1	M		Integer (1..144)	The duration of transmission gap pattern 1.
>TGPL2	O		Integer (1..144)	The duration of transmission gap pattern 2. If omitted, then TGPL2=TGPL1.
>RPP	M		Enumerated (mode 0, mode 1).	Recovery Period Power control mode during the frame after the transmission gap within the compressed frame. Indicates whether normal PC mode or compressed PC mode is applied
>ITPPRM	M		Enumerated (mode 0, mode 1).	Initial Transmit Power is the uplink power control method to be used to compute the initial transmit power after the compressed mode gap.
>UL/DL mode	M		Enumerated (UL only, DL only, UL/DL)	Defines whether only DL, only UL, or combined UL/DL compressed mode is used.
>Downlink compressed mode method	C-DL		Enumerated (puncturing, SF/2, higher layer scheduling)	Method for generating downlink compressed mode gap None means that compressed mode pattern is stopped
>Uplink compressed mode method	C-UL		Enumerated (SF/2, higher layer scheduling)	Method for generating uplink compressed mode gap
>Downlink frame type	M		Enumerated (A, B)	
DeltaSIR1	M		Integer (0..30)	Delta in DL SIR target value to be set in the UE during the

				compressed frames corresponding to the first transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) Step 0.1
DeltaSIRafter1	M		Integer (0..30)	Delta in DL SIR target value to be set in the UE one frame after the compressed frames corresponding to the first transmission gap in the transmission gap pattern,. Step 0.1
DeltaSIR2	O		Integer (0..30)	Delta in DL SIR target value to be set in the UE during the compressed frames corresponding to the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1. Step 0.1
DeltaSIRafter2	O		Integer (0..30)	Delta in DL SIR target value to be set in the UE one frame after the compressed frames corresponding to the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Step 0.1

Condition	Explanation
C-UL	This information element is only sent when the value of the "UL/DL mode" IE is "UL only" or "UL/DL".
C-DL	This information element is only sent when the value of the "UL/DL mode" IE is "DL only" or "UL/DL".

Range bound	Explanation
MaxTGPS	Maximum number of transmission gap pattern sequences. Value 6.

9.2.2.53B   Transmission Gap Pattern Sequence Code Information

This IE indicates whether the alternative scrambling code shall used for the Downlink compressed mode method or not in the Transmission Gap Pattern Sequence. For details see [18].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Scrambling code change			Enumerated (code change, no code change)	Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'.

9.2.2.54 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)	

9.2.2.55 UL delta SIR

The delta in uplink SIR 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.

9.2.2.56 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.

9.2.2.57 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)	

9.2.2.58 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

9.2.2.59 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)	

9.2.2.60 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)	

9.2.3 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)	

9.2.3.2 Burst Type

The Burst Type as described in [19].

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

9.2.3.3 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)	

9.2.3.4 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the Code Groups, Scrambling Codes, Midambles and Toffset (see table 9 of [20])

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell Parameter ID			INTEGER (0..127)	

9.2.3.4A Constant Value

The Constant Value is the power margin used by a UE to set the proper uplink power for a DCH, USCH, or a RACH .

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Constant Value			INTEGER (-10...10)	Unit dB Granularity 1 dB.

9.2.3.4B DL Timeslot ISCP

DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [5].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL Timeslot ISCP			INTEGER (0..91)	According to mapping in [5].

9.2.3.5 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)	

9.2.3.6 Max PRACH Midamble shift

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Max PRACH Midamble Shifts			ENUMERAT ED (4, 8)	

9.2.3.7 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)	

9.2.3.8 Paging Indicator Length

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Paging Indicator Length			ENUMERATED (2, 4, 8)	number of symbols in the page indicator / see [19]

9.2.3.9 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.

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

9.2.3.11 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]

9.2.3.12 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)	

9.2.3.13 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]

9.2.3.14 PRACH Midamble

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PRACH Midamble			ENUMERATED (Inverted, Direct)	

9.2.3.15 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)	

9.2.3.16 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)	

.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)	

9.2.3.18 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)	

9.2.3.19   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))	

9.2.3.20   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)	

9.2.3.21   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)	

9.2.3.22   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)	

9.2.3.23   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)	

9.2.3.24   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)	

9.2.3.25 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)	

9.2.3.26 Transmission Diversity Applied

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transmission Diversity Applied			Boolean	

9.2.3.27 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)	

9.3 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.

The ASN.1 definition specifies the structure and content of NBAP messages. NBAP messages can contain any IEs specified in the object set definitions for that message without the order or number of occurrence being restricted by ASN.1. However, for this version of the standard, a sending entity shall construct a NBAP message according to the PDU definitions module and with the following additional rules (Note that in the following IE means an IE in the object set with an explicit id. If one IE needed to appear more than once in one object set, then the different occurrences have different IE ids):

- IEs shall be ordered (in an IE container) in the order they appear in object set definitions.

- Object set definitions specify how many times IEs may appear. An IE shall appear exactly once if the presence field in an object has value "mandatory". An IE may appear at most once if the presence field in an object has value "optional" or "conditional". If in a tabular format there is multiplicity specified for an IE (i.e. an IE list) then in the corresponding ASN.1 definition the list definition is separated into two parts. The first part defines an IE container list where the list elements reside. The second part defines list elements. The IE container list appears as an IE of its own. For this version of the standard an IE container list may contain only one kind of list elements.

If a NBAP message that is not constructed as defined above is received, this shall be considered as Abstract Syntax Error, and the message shall be handled as defined for Abstract Syntax Error in section 10.

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,
        CompressedModeCommand,
        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-compressedModeCommand,
        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;

-- *************************************************************
--
-- 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,
    unsuccesfulOutcome      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                        ,
    ...
}

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

ETSI

```
        radioLinkFailure                                  |
        radioLinkRestoration                              |
        dedicatedMeasurementReport                        |
        dedicatedMeasurementTermination                   |
        dedicatedMeasurementFailure                       |
        downlinkPowerControlFDD                           |
        compressedModeCommand                             |
        unblockResource                                   |
        errorIndicationForDedicated                       |
        errorIndicationForCommon                          |
        privateMessageForDedicated                        |
        privateMessageForCommon                           ,
        ...
}


-- ****************************************************************
--
-- 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
}

-- 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 ::= {
    INITIATING MESSAGE      DL-PowerControlRequest
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-downlinkPowerControl, ddMode fdd }
    CRITICALITY             ignore
}

-- *** CompressedModeCommand (FDD only) ***
compressedModeCommand NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CompressedModeCommand
    MESSAGE DISCRIMINATOR   dedicated
    PROCEDURE ID            { procedureCode id-compressedModeCommand, 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 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
}

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
    Active-Pattern-Sequence-Information,
    AddorDeleteIndicator,
    AICH-TransmissionTiming,
    APPreambleSignature,
    APSubChannelNumber,
    AvailabilityStatus,
    BCCH-ModificationTime,
    BindingID,
    BlockingPriorityIndicator,
    BlockSTTD-Indicator,
    BurstType,
    Cause,
```

```
        CCTrCH-ID,
        CDSubChannelNumbers,
        CellParameterID,
        CFN,
        Channel-Assignment-Indication,
        ChipOffset,
        C-ID,
        Closedlooptimingadjustmentmode,
        CommonChannelsCapacityConsumptionLaw,
        Compressed-Mode-Deactivation-Flag-RL-AdditionRqstFDD,
        CommonMeasurementType,
        CommonMeasurementValue,
        CommonPhysicalChannelID,
        CommonTransportChannelID,
        CommunicationControlPortID,
        ConfigurationGenerationID,
        ConstantValue,
        CriticalityDiagnostics,
        CPCH-Allowed-Total-Rate,
        CPCHScramblingCodeNumber,
        CPCH-UL-DPCCH-SlotFormat,
        CRNC-CommunicationContextID,
        DCH-ID,
        DedicatedChannelsCapacityConsumptionLaw,
        DedicatedMeasurementType,
        DedicatedMeasurementValue,
        D-FieldLength,
        DiversityControlField,
        DiversityMode,
        DL-DPCH-SlotFormat,
        DL-or-Global-CapacityCredit,
        DL-Power,
        DLPowerAveragingWindowSize,
        DL-ScramblingCode,
        DL-TimeslotISCP,
        DL-TPC-Pattern01Count,
        DPCH-ID,
        DSCH-ID,
-- to do
        DSCH-TFS,
        FDD-DL-ChannelisationCodeNumber,
        FDD-S-CCPCH-Offset,
        FDD-TPC-DownlinkStepSize,
        FirstRLS-Indicator,
        FrameHandlingPriority,
        FrameOffset,
        IB-SG-DATA,
        IB-SG-POS,
        IB-SG-REP,
        IB-Type,
        IndicationType,
```

```
    LimitedPowerIncrease,
    Local-Cell-ID,
    MaximumDL-PowerCapability,
    MaximumTransmissionPower,
    Max-Number-of-PCPCHes,
    MaxNrOfUL-DPDCHs,
    MaxPRACH-MidambleShifts,
    MeasurementFilterCoefficient,
    MeasurementID,
    MidambleShift,
    MinSpreadingFactor,
    MinUL-ChannelisationCodeLength,
    MultiplexingPosition,
    NEOT,
    NFmax,
    N-INSYNC-IND,
    N-OUTSYNC-IND,
    NodeB-CommunicationContextID,
    NStartMessage,
    PagingIndicatorLength,
    PayloadCRC-PresenceIndicator,
    PCCPCH-Power,
    PCP-Length,
    PDSCH-CodeMapping,
    PDSCHSet-ID,
    PDSCH-ID,
    PICH-Mode,
    PowerAdjustmentType,
    PowerOffset,
    PowerRaiseLimit,
    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,
    AdjustmentPeriod,
    ScaledAdjustmentRatio,
```

```
        MaxAdjustmentStep,
        ScramblingCodeNumber,
        SecondaryCCPCH-SlotFormat,
        S-FieldLength,
        SFN,
        ShutdownTimer,
        SIB-Originator,
        SSDT-Cell-Identity,
        SSDT-CellID-Length,
        SSDT-Indication,
        STTD-Indicator,
        SSDT-SupportIndicator,
        SyncCase,
        T-Cell,
        T-RLFAILURE,
        TDD-ChannelisationCode,
        TDD-TPC-DownlinkStepSize,
        TDD-PhysicalChannelOffset,
        TFCI-Coding,
        TFCI-Presence,
        TFCI-SignallingMode,
        TFCS,
        TimeSlot,
        TimeSlotDirection,
        TimeSlotStatus,
        ToAWE,
        ToAWS,
        TransmissionDiversityApplied,
        TransmitDiversityIndicator,

        TransmissionGapPatternSequenceCodeInformation,
        Transmission-Gap-Pattern-Sequence-Information,
        TransportFormatSet,
        TransportLayerAddress,
        TSTD-Indicator,
        UARFCN,
        UL-CapacityCredit,
        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
```

ETSI

```
FROM NBAP-Containers

    id-Active-Pattern-Sequence-Information,
    id-AdjustmentRatio,
    id-AICH-InformationItem-AuditRsp,
    id-AICH-InformationItem-ResourceStatusInd,
    id-AICH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-AllRLItem-DM-Rqst,
    id-AllRLItem-Set-DM-Rqst,
    id-AP-AICH-InformationItem-AuditRsp,
    id-AP-AICH-InformationItem-ResourceStatusInd,
    id-AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD,
    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-CCP-InformationItem-ResourceStatusInd,
    id-CDCA-ICH-InformationItem-AuditRsp,
    id-CDCA-ICH-InformationItem-ResourceStatusInd,
    id-CDCA-ICH-ParametersListIE-CTCH-ReconfRqstFDD,
    id-Cell-InformationItem-AuditRsp,
    id-Cell-InformationItem-ResourceStatusInd,
    id-Cell-InformationList-AuditRsp,
    id-CellItem-CM-Rprt,
    id-CellItem-CM-Rqst,
    id-CellItem-CM-Rsp,
    id-CellParameterID,
    id-CFN,
    id-C-ID,
    id-Closed-Loop-Timing-Adjustment-Mode,
    id-CombiningItem-RL-AdditionFailureFDD,
    id-CombiningItem-RL-AdditionRspFDD,
    id-CombiningItem-RL-AdditionRspTDD,
    id-CombiningItem-RL-SetupFailureFDD,
    id-CombiningItem-RL-SetupRspFDD,
    id-CommonMeasurementObjectType-CM-Rprt,
    id-CommonMeasurementObjectType-CM-Rqst,
    id-CommonMeasurementObjectType-CM-Rsp,
    id-CommonMeasurementType,
    id-CommonPhysicalChannelID,
```

```
            id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD,
            id-CommonPhysicalChannelType-CTCH-SetupRqstFDD,
            id-CommonPhysicalChannelType-CTCH-SetupRqstTDD,
            id-CommonTransportChannelType-CTCH-ReconfRqstTDD,
            id-CommunicationControlPortID,
            id-Compressed-Mode-Deactivation-Flag-RL-AdditionRqstFDD,
            id-ConfigurationGenerationID,
            id-CPCH-InformationItem-AuditRsp,
            id-CPCH-InformationItem-ResourceStatusInd,
            id-CPCHItem-CM-Rprt,
            id-CPCHItem-CM-Rqst,
            id-CPCHItem-CM-Rsp,
            id-CPCHListItem-CTCH-ReconfRqstFDD,
            id-CPCH-Parameters-CTCH-SetupRsp,
            id-CPCH-ParametersListIE-CTCH-ReconfRqstFDD,
            id-CRNC-CommunicationContextID,
            id-CriticalityDiagnostics,
            id-DCH-AddList-RL-ReconfPrepFDD,
            id-DCH-AddList-RL-ReconfPrepTDD,
            id-DCH-AddList-RL-ReconfRqstFDD,
            id-DCH-AddList-RL-ReconfRqstTDD,
            id-DCH-DeleteList-RL-ReconfPrepFDD,
            id-DCH-DeleteList-RL-ReconfPrepTDD,
            id-DCH-DeleteList-RL-ReconfRqstFDD,
            id-DCH-DeleteList-RL-ReconfRqstTDD,
            id-DCH-InformationList-RL-SetupRqstFDD,
            id-DCH-InformationList-RL-SetupRqstTDD,
            id-DCH-InformationResponseListIE-RL-ReconfReady,
            id-DCH-InformationResponseListIE-RL-ReconfRsp,
            id-DCH-InformationResponseItem-RL-SetupRspTDD,
            id-DCH-InformationResponseListIE-RL-SetupRspTDD,
            id-DCH-ModifyList-RL-ReconfPrepFDD,
            id-DCH-ModifyList-RL-ReconfPrepTDD,
            id-DCH-ModifyList-RL-ReconfRqstFDD,
            id-DCH-ModifyList-RL-ReconfRqstTDD,
            id-DedicatedMeasurementObjectType-DM-Rprt,
            id-DedicatedMeasurementObjectType-DM-Rqst,
            id-DedicatedMeasurementObjectType-DM-Rsp,
            id-DedicatedMeasurementType,
            id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
            id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
            id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
            id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,
            id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,
            id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD,
            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-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-DL-TPC-Pattern01Count,
id-DPCHConstant,
id-DSCH-AddItem-RL-ReconfPrepFDD,
id-DSCH-AddItem-RL-ReconfRqstFDD,
id-DSCH-AddList-RL-ReconfPrepFDD,
id-DSCH-AddList-RL-ReconfRqstFDD,
id-DSCH-DeleteItem-RL-ReconfPrepFDD,
id-DSCH-DeleteItem-RL-ReconfRqstFDD,
id-DSCH-DeleteList-RL-ReconfPrepFDD,
id-DSCH-DeleteList-RL-ReconfRqstFDD,
id-DSCH-ID,
id-DSCH-information-AddList-RL-ReconfPrepTDD,
id-DSCH-Information-AddList-RL-ReconfRqstTDD,
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD,
id-DSCH-Information-DeleteList-RL-ReconfRqstTDD,
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD,
id-DSCH-Information-ModifyList-RL-ReconfRqstTDD,
id-DSCH-InformationResponseListIE-RL-AdditionRspTDD,
id-DSCH-InformationResponseListIE-RL-ReconfReady,
id-DSCH-InformationResponseListIE-RL-ReconfRsp,
id-DSCH-InformationRespListIE-RL-SetupFailureFDD,
id-DSCH-InformationResponseListIE-RL-SetupRspFDD,
id-DSCH-InformationResponseListIE-RL-SetupRspTDD,
id-DSCH-InformationList-RL-SetupRqstFDD,
id-DSCH-InformationList-RL-SetupRqstTDD,
id-DSCH-ModifyItem-RL-ReconfPrepFDD,
id-DSCH-ModifyItem-RL-ReconfRqstFDD,
id-DSCH-ModifyList-RL-ReconfPrepFDD,
id-DSCH-ModifyList-RL-ReconfRqstFDD,
id-FACH-InformationItem-AuditRsp,
id-FACH-InformationItem-ResourceStatusInd,
id-FACHItem-CTCH-SetupRsp,
id-FACH-ParametersList-CTCH-ReconfRqstTDD,
id-FACH-ParametersList-CTCH-SetupRsp,
id-FACH-ParametersListIE-CTCH-ReconfRqstFDD,
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-Limited-power-increase-information-Cell-SetupRqstFDD,
    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-AdjustmentPeriod,
    id-MaxAdjustmentStep,
    id-MaximumTransmissionPower,
    id-MeasurementAvailableItem-CommonMeasurementReport,
    id-MeasurementnotAvailableItem-CommonMeasurementReport,
    id-MeasurementAvailableItem-DedicatedMeasurementReport,
    id-MeasurementnotAvailableItem-DedicatedMeasurementReport,
    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-NonCombiningOrFirstRLItem-RL-SetupFailureFDD,
    id-NonCombiningOrFirstRLItem-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-ReconfRqstTDD,
    id-PCH-Parameters-CTCH-SetupRsp,
    id-PCH-ParametersItem-CTCH-ReconfRqstFDD,
    id-PCH-ParametersItem-CTCH-SetupRqstFDD,
    id-PCH-ParametersItem-CTCH-SetupRqstTDD,
    id-PCH-InformationItem-AuditRsp,
    id-PCPCH-InformationItem-AuditRsp,
    id-PCPCH-InformationItem-ResourceStatusInd,
    id-PCPCHItem-CTCH-SetupRqstFDD,
    id-PCPCH-ParametersList-CTCH-ReconfRqstFDD,
    id-PICH-ParametersItem-CTCH-ReconfRqstFDD,
```

```
        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-ReconfRqstTDD,
        id-PowerAdjustmentType,
        id-PRACH-InformationItem-AuditRsp,
        id-PRACH-InformationItem-ResourceStatusInd,
        id-PRACHConstant,
        id-PRACHItem-CTCH-SetupRqstFDD,
        id-PRACHItem-CTCH-SetupRqstTDD,
        id-PRACHListIE-CTCH-ReconfRqstFDD,
        id-PRACH-ParametersListIE-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-PUSCHConstant,
        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-Parameters-CTCH-SetupRsp,
        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-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-ReconfRqstFDD,
        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-Successful-RL-InformationRespItem-RL-AdditionFailureFDD,
        id-Successful-RL-InformationRespItem-RL-SetupFailureFDD,
        id-Successful-RL-InformationRespList-RL-AdditionFailureFDD,
        id-Successful-RL-InformationRespList-RL-SetupFailureFDD,
        id-Synchronisation-Configuration-Cell-ReconfRqst,
        id-Synchronisation-Configuration-Cell-SetupRqst,
        id-SyncCase,
        id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH,
        id-T-Cell,
        id-Transmission-Gap-Pattern-Sequence-Information,
        id-TimeSlotConfigurationList-Cell-ReconfRqstTDD,
        id-TimeSlotConfigurationList-Cell-SetupRqstTDD,
        id-TransmissionDiversityApplied,
        id-UARFCNforNt,
        id-UARFCNforNd,
        id-UARFCNforNu,
        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-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-InformationItem-RL-AdditionRqstTDD,
        id-UL-DPCH-InformationList-RL-AdditionRqstTDD,
        id-UL-DPCH-InformationList-RL-SetupRqstTDD,
        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-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,
    id-Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD,
    id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD,
    id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD,
    id-USCH-information-AddList-RL-ReconfPrepTDD,
    id-USCH-Information-AddList-RL-ReconfRqstTDD,
    id-USCH-Information-DeleteList-RL-ReconfPrepTDD,
    id-USCH-Information-DeleteList-RL-ReconfRqstTDD,
    id-USCH-Information-ModifyList-RL-ReconfPrepTDD,
    id-USCH-Information-ModifyList-RL-ReconfRqstTDD,
    id-USCH-InformationResponseListIE-RL-AdditionRspTDD,
    id-USCH-InformationResponseListIE-RL-ReconfReady,
    id-USCH-InformationResponseListIE-RL-ReconfRsp,
    id-USCH-InformationResponseListIE-RL-SetupRspTDD,
    id-USCH-InformationList-RL-SetupRqstTDD,


    maxNrOfCCTrCHs,
    maxNrOfCodes,
    maxNrOfCPCHs,
    maxNrOfDCHs,
    maxNrOfDLCodes,
    maxNrOfDLTSs,
    maxNrOfDPCHs,
    maxNrOfDSCHs,
    maxNrOfFACHs,
    maxNrOfRLs,
    maxNrOfRLSets,
    maxNrOfPCPCHs,
    maxNrOfPDSCHs,
    maxNrOfPUSCHs,
    maxNrOfPDSCHSets,
    maxNrOfPUSCHSets,
    maxNrOfSCCPCHs,
    maxNrOfULTSs,
    maxNrOfUSCHs,
    maxAPSigNum,
    maxCPCHCell,
    maxFACHCell,
    maxNoofLen,
    maxRACHCell,
    maxPCPCHCell,
    maxPRACHCell,
    maxSCCPCHCell,
    maxSCPICHCell,
```

```
    maxCellinNodeB,
    maxCCPinNodeB,
    maxLocalCellinNodeB,
    maxNrOfSlotFormatsPRACH,
    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,
    pCPCHes-parameters              PCPCH-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,
    powerOffsetInformation                      PowerOffsetInformation-CTCH-SetupRqstFDD,
    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 ::= {
    ...
}

PowerOffsetInformation-CTCH-SetupRqstFDD ::= SEQUENCE {
    pO1-ForTFCI-Bits                            PowerOffset,
    pO3-ForPilotBits                            PowerOffset,
    iE-Extensions                               ProtocolExtensionContainer { { PowerOffsetInformation-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

PowerOffsetInformation-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,
    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,
```

```
    scramblingCodeNumber                      ScramblingCodeNumber,
    tFCS                                      TFCS,
    preambleSignatures                        PreambleSignatures,
    allowedSlotFormatInformation              AllowedSlotFormatInformationList-CTCH-SetupRqstFDD,
    rACH-SubChannelNumbers                    RACH-SubChannelNumbers,
    ul-punctureLimit                          PunctureLimit,
    preambleThreshold                         PreambleThreshold,
    rACH-Parameters                           RACH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions                             ProtocolExtensionContainer { { PRACHItem-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

PRACHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AllowedSlotFormatInformationList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1.. maxNrOfSlotFormatsPRACH)) 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 ::= {
    ...
}


PCPCH-CTCH-SetupRqstFDD ::= ProtocolIE-Container {{ PCPCHIE-CTCH-SetupRqstFDD }}


PCPCHIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PCPCHItem-CTCH-SetupRqstFDD    CRITICALITY reject   TYPE PCPCHItem-CTCH-SetupRqstFDD PRESENCE   optional },
    ...
}


PCPCHItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    cPCH-Parameters              CPCH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions                ProtocolExtensionContainer { { PCPCHItem-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}


PCPCHItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


CPCH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    transportFormatSet              TransportFormatSet,
    aPPreambleScramblingCode        CPCHScramblingCodeNumber,
    cDPreambleScramblingCode        CPCHScramblingCodeNumber,
    tFCS                            TFCS,
    cDSignatures                    PreambleSignatures         OPTIONAL,
    cDSubChannelNumbers             CDSubChannelNumbers        OPTIONAL,
    -- this IE may be present only if the CD Signatures is present --
    punctureLimit                   PunctureLimit,
    cPCH-UL-DPCCH-SlotFormat         CPCH-UL-DPCCH-SlotFormat,
    uL-SIR                          UL-SIR,
    initialDL-transmissionPower     DL-Power,
    maximumDLPower                  DL-Power,
    minimumDLPower                  DL-Power,
    pO2-ForTPC-Bits                 PowerOffset,
    pO3-ForPilotBits                PowerOffset,
    fDD-TPC-DownlinkStepSize         FDD-TPC-DownlinkStepSize,
    nStartMessage                   NStartMessage,
    nEOT                            NEOT,
    channel-Assignment-Indication   Channel-Assignment-Indication,
```

```
    cPCH-Allowed-Total-Rate           CPCH-Allowed-Total-Rate,
    pCPCHChannelInfomation            PCPCHChannelInformationList-CTCH-SetupRqstFDD,
    vCAMMapping-Information           VCAMMapping-InformationList-CTCH-SetupRqstFDD       OPTIONAL,
    -- this IE is only present if the Channel Assignment Indication is equal to CA Active --
    aP-AICH-Parameters                AP-AICH-Parameters-CTCH-SetupRqstFDD,
    cDCA-ICH-Parameters               CDCA-ICH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions                     ProtocolExtensionContainer  { { CPCH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}


CPCH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


PCPCHChannelInformationList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfPCPCHs)) OF PCPCHChannelInformationItem-CTCH-SetupRqstFDD


PCPCHChannelInformationItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID           CommonPhysicalChannelID,
    cPCHScramblingCodeNumber          CPCHScramblingCodeNumber,
    dL-ScramblingCode                 DL-ScramblingCode,
    fdd-dl-ChannelisationCodeNumber   FDD-DL-ChannelisationCodeNumber,
    pCP-Length                        PCP-Length,
    uCSM-Information                  UCSM-Information-CTCH-SetupRqstFDD       OPTIONAL,
    -- this IE is only present if the Channel Assignment Indication is equal to CA Inactive --
    iE-Extensions                     ProtocolExtensionContainer  { { PCPCHChannelInformationItem-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}


PCPCHChannelInformationItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


UCSM-Information-CTCH-SetupRqstFDD ::= SEQUENCE {
    minUL-ChannelisationCodeLength    MinUL-ChannelisationCodeLength,
    nFmax                             NFmax,
    channelRequestParameters          ChannelRequestParametersList-CTCH-SetupRqstFDD       OPTIONAL,
    iE-Extensions                     ProtocolExtensionContainer  { { UCSM-InformationItem-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
 }


UCSM-InformationItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


ChannelRequestParametersList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxAPSigNum)) OF ChannelRequestParametersItem-CTCH-SetupRqstFDD


ChannelRequestParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    aPPreambleSignature       APPreambleSignature,
    aPSubChannelNumber        APSubChannelNumber     OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer  { { ChannelRequestParametersItem-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
```

```
}

ChannelRequestParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

VCAMMapping-InformationList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNoofLen)) OF VCAMMapping-InformationItem-CTCH-SetupRqstFDD

VCAMMapping-InformationItem-CTCH-SetupRqstFDD  ::= SEQUENCE {
    minUL-ChannelisationCodeLength     MinUL-ChannelisationCodeLength,
    nFmax                              NFmax,
    max-Number-of-PCPCHes              Max-Number-of-PCPCHes,
    sFRequestParameters                SFRequestParametersList-CTCH-SetupRqstFDD,
    iE-Extensions                      ProtocolExtensionContainer  { { VCAMMapping-InformationItem-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

VCAMMapping-InformationItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

SFRequestParametersList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxAPSigNum)) OF SFRequestParametersItem-CTCH-SetupRqstFDD

SFRequestParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    aPPreambleSignature       APPreambleSignature,
    aPSubChannelNumber        APSubChannelNumber     OPTIONAL,
    iE-Extensions             ProtocolExtensionContainer  { { SFRequestParametersItem-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

SFRequestParametersItem-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION::= {
    ...
}

AP-AICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID               CommonPhysicalChannelID,
    dl-ScramblingCode                     DL-ScramblingCode,
    fdd-dl-ChannelisationCodeNumber       FDD-DL-ChannelisationCodeNumber,
    aP-AICH-Power                         DL-Power,
    cSICH-Power                           DL-Power,
    sTTD-Indicator                        STTD-Indicator     OPTIONAL,
    iE-Extensions                         ProtocolExtensionContainer  { { AP-AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

AP-AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CDCA-ICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID               CommonPhysicalChannelID,
```

```
    dl-ScramblingCode                          DL-ScramblingCode,
    fdd-dl-ChannelisationCodeNumber            FDD-DL-ChannelisationCodeNumber,
    cDCA-ICH-Power                             DL-Power,
    sTTD-Indicator                             STTD-Indicator     OPTIONAL,
    iE-Extensions                              ProtocolExtensionContainer  { { CDCA-ICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

CDCA-ICH-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-FACH-ParametersList-CTCH-SetupRsp     CRITICALITY ignore    TYPE    FACH-ParametersList-CTCH-SetupRsp    PRESENCE optional }|
    { ID    id-PCH-Parameters-CTCH-SetupRsp          CRITICALITY ignore    TYPE    PCH-Parameters-CTCH-SetupRsp         PRESENCE optional }|
    { ID    id-RACH-Parameters-CTCH-SetupRsp         CRITICALITY ignore    TYPE    RACH-Parameters-CTCH-SetupRsp        PRESENCE optional }|
    { ID    id-CPCH-Parameters-CTCH-SetupRsp         CRITICALITY ignore         TYPE    CPCH-Parameters-CTCH-SetupRsp     PRESENCE optional }|
    { ID    id-CriticalityDiagnostics                         CRITICALITY    ignore    TYPE    CriticalityDiagnostics                          PRESENCE
    optional    },
    ...
}

CommonTransportChannelSetupResponse-Extensions 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-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-Parameters-CTCH-SetupRsp ::= SEQUENCE {
    commonTransportChannelID          CommonTransportChannelID,
    bindingID                         BindingID,
    transportLayerAddress             TransportLayerAddress,
    iE-Extensions                     ProtocolExtensionContainer  { { RACH-Parameters-CTCH-SetupRsp-ExtIEs} }     OPTIONAL,
    ...
}
```

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```
RACH-Parameters-CTCH-SetupRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CPCH-Parameters-CTCH-SetupRsp ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    bindingID                       BindingID,
    transportLayerAddress           TransportLayerAddress,
    iE-Extensions                   ProtocolExtensionContainer { { CPCH-Parameters-CTCH-SetupRsp-ExtIEs} }    OPTIONAL,
    ...
}

CPCH-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-CommonPhysicalChannelType-CTCH-ReconfRqstFDD CRITICALITY reject  TYPE   CommonPhysicalChannelType-CTCH-ReconfRqstFDD PRESENCE mandatory
    },
    ...
}

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

CommonPhysicalChannelType-CTCH-ReconfRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters        Secondary-CCPCHList-CTCH-ReconfRqstFDD,
    pRACH-parameters                  PRACHList-CTCH-ReconfRqstFDD,
    cPCH-parameters                   CPCHList-CTCH-ReconfRqstFDD,
    ...
}

Secondary-CCPCHList-CTCH-ReconfRqstFDD ::= ProtocolIE-Container {{ Secondary-CCPCHListIEs-CTCH-ReconfRqstFDD }}

Secondary-CCPCHListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-Secondary-CCPCHListIE-CTCH-ReconfRqstFDD    CRITICALITY reject  TYPE Secondary-CCPCHListIE-CTCH-ReconfRqstFDD    PRESENCE optional },
    ...
}

Secondary-CCPCHListIE-CTCH-ReconfRqstFDD ::= SEQUENCE {
    fACH-ParametersList-CTCH-ReconfRqstFDD        FACH-ParametersList-CTCH-ReconfRqstFDD   OPTIONAL,
    pCH-Parameters-CTCH-ReconfRqstFDD             PCH-Parameters-CTCH-ReconfRqstFDD        OPTIONAL,
    pICH-Parameters-CTCH-ReconfRqstFDD            PICH-Parameters-CTCH-ReconfRqstFDD       OPTIONAL,
    iE-Extensions                                 ProtocolExtensionContainer { { Secondary-CCPCH-CTCH-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

Secondary-CCPCH-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Container {{ FACH-ParametersListIEs-CTCH-ReconfRqstFDD }}

FACH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-FACH-ParametersListIE-CTCH-ReconfRqstFDD    CRITICALITY reject  TYPE FACH-ParametersListIE-CTCH-ReconfRqstFDD    PRESENCE mandatory },
    ...
}

FACH-ParametersListIE-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 ::= ProtocolIE-Container {{ PCH-ParametersIE-CTCH-ReconfRqstFDD }}

PCH-ParametersIE-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PCH-ParametersItem-CTCH-ReconfRqstFDD   CRITICALITY reject  TYPE PCH-ParametersItem-CTCH-ReconfRqstFDD PRESENCE mandatory },
    ...
}

PCH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID              CommonTransportChannelID,
    pCH-Power                             DL-Power        OPTIONAL,
    toAWS                                 ToAWS           OPTIONAL,
    toAWE                                 ToAWE           OPTIONAL,
    iE-Extensions                         ProtocolExtensionContainer { { PCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }      OPTIONAL,
    ...
}

PCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PICH-Parameters-CTCH-ReconfRqstFDD ::= ProtocolIE-Container {{ PICH-ParametersIE-CTCH-ReconfRqstFDD }}

PICH-ParametersIE-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PICH-ParametersItem-CTCH-ReconfRqstFDD  CRITICALITY reject  TYPE PICH-ParametersItem-CTCH-ReconfRqstFDD   PRESENCE mandatory },
    ...
}

PICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID              CommonTransportChannelID,
    pICH-Power                            DL-Power,
    iE-Extensions                         ProtocolExtensionContainer { { PICH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

PICH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACHList-CTCH-ReconfRqstFDD ::= ProtocolIE-Container {{ PRACHListIEs-CTCH-ReconfRqstFDD }}

PRACHListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PRACHListIE-CTCH-ReconfRqstFDD  CRITICALITY reject  TYPE PRACHListIE-CTCH-ReconfRqstFDD PRESENCE optional },
    ...
```

```
}

PRACHListIE-CTCH-ReconfRqstFDD ::= SEQUENCE {
    pRACH-ParametersList-CTCH-ReconfRqstFDD       PRACH-ParametersList-CTCH-ReconfRqstFDD OPTIONAL,
    aICH-ParametersList-CTCH-ReconfRqstFDD        AICH-ParametersList-CTCH-ReconfRqstFDD  OPTIONAL,
    iE-Extensions                                 ProtocolExtensionContainer { { PRACH-CTCH-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

PRACH-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Container {{ PRACH-ParametersListIEs-CTCH-ReconfRqstFDD }}

PRACH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD   CRITICALITY reject  TYPE PRACH-ParametersListIE-CTCH-ReconfRqstFDD  PRESENCE mandatory },
    ...
}

PRACH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxPRACHCell)) 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.. maxNrOfSlotFormatsPRACH)) 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 ::= ProtocolIE-Container {{ AICH-ParametersListIEs-CTCH-ReconfRqstFDD }}

AICH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
```

```
    { ID id-AICH-ParametersListIE-CTCH-ReconfRqstFDD    CRITICALITY reject  TYPE AICH-ParametersListIE-CTCH-ReconfRqstFDD    PRESENCE mandatory },
    ...
}

AICH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxPRACHCell)) 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 ::= {
    ...
}

CPCHList-CTCH-ReconfRqstFDD ::= ProtocolIE-Container {{ CPCHListIE-CTCH-ReconfRqstFDD }}

CPCHListIE-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CPCHListItem-CTCH-ReconfRqstFDD CRITICALITY reject  TYPE CPCHListItem-CTCH-ReconfRqstFDD    PRESENCE mandatory },
    ...
}

CPCHListItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    cPCHListItem-CTCH-ReconfRqstFDD                CPCHListItem-CTCH-ReconfRqstFDD             OPTIONAL,
    aP-AICH-ParametersList-CTCH-ReconfRqstFDD      AP-AICH-ParametersList-CTCH-ReconfRqstFDD   OPTIONAL,
    cDCA-ICH-ParametersList-CTCH-ReconfRqstFDD     CDCA-ICH-ParametersList-CTCH-ReconfRqstFDD  OPTIONAL,
    iE-Extensions                                  ProtocolExtensionContainer  { { CPCHListItem-CTCH-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

CPCHListItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CPCH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Container {{ CPCH-ParametersListIEs-CTCH-ReconfRqstFDD }}

CPCH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CPCH-ParametersListIE-CTCH-ReconfRqstFDD    CRITICALITY reject  TYPE CPCH-ParametersListIE-CTCH-ReconfRqstFDD    PRESENCE mandatory },
    ...
}

CPCH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfCPCHs)) OF CPCH-ParametersItem-CTCH-ReconfRqstFDD

CPCH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    uL-SIR                          UL-SIR          OPTIONAL,
    initialDL-transmissionPower     DL-Power        OPTIONAL,
    maximumDLPower                  DL-Power        OPTIONAL,
    minimumDLPower                  DL-Power        OPTIONAL,
```

```
    iE-Extensions                          ProtocolExtensionContainer { { CPCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }      OPTIONAL,
    ...
}

CPCH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AP-AICH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Container {{ AP-AICH-ParametersListIEs-CTCH-ReconfRqstFDD }}

AP-AICH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD CRITICALITY reject  TYPE AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD   PRESENCE mandatory },
    ...
}

AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfCPCHs)) OF AP-AICH-ParametersItem-CTCH-ReconfRqstFDD

AP-AICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID               CommonTransportChannelID,
    aP-AICH-Power                          DL-Power,
    cSICH-Power                            DL-Power,
    iE-Extensions                          ProtocolExtensionContainer { { AP-AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

AP-AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CDCA-ICH-ParametersList-CTCH-ReconfRqstFDD ::= ProtocolIE-Container {{ CDCA-ICH-ParametersListIEs-CTCH-ReconfRqstFDD }}

CDCA-ICH-ParametersListIEs-CTCH-ReconfRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-CDCA-ICH-ParametersListIE-CTCH-ReconfRqstFDD   CRITICALITY reject  TYPE CDCA-ICH-ParametersListIE-CTCH-ReconfRqstFDD PRESENCE mandatory },
    ...
}

CDCA-ICH-ParametersListIE-CTCH-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfCPCHs)) OF AP-AICH-ParametersItem-CTCH-ReconfRqstFDD

CDCA-ICH-ParametersItem-CTCH-ReconfRqstFDD ::= SEQUENCE {
    commonTransportChannelID               CommonTransportChannelID,
    cDCA-ICH-Power                         DL-Power,
    iE-Extensions                          ProtocolExtensionContainer { { CDCA-ICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

CDCA-ICH-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,
    commnonChannelsCapacityConsumptionLaw    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,
    pCPCH-InformationList               PCPCH-InformationList-AuditRsp             OPTIONAL,
    cPCH-InformationList                CPCH-InformationList-AuditRsp              OPTIONAL,
    aP-AICH-InformationList             AP-AICH-InformationList-AuditRsp           OPTIONAL,
    cDCA-ICH-InformationList            CDCA-ICH-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,
```

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```
    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 ::= {
    ...
}

PCPCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxPCPCHCell)) OF ProtocolIE-Container {{ PCPCH-InformationItemIE-AuditRsp }}

PCPCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-PCPCH-InformationItem-AuditRsp   CRITICALITY ignore TYPE PCPCH-InformationItem-AuditRsp     PRESENCE optional },
    ...
}

PCPCH-InformationItem-AuditRsp ::= SEQUENCE {
    commonPhysicalChannelID            CommonPhysicalChannelID,
    resourceOperationalState           ResourceOperationalState,
    availabilityStatus                 AvailabilityStatus,
    iE-Extensions                      ProtocolExtensionContainer { { PCPCH-InformationItem-AuditRsp-ExtIEs} }   OPTIONAL,
    ...
}

PCPCH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CPCH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Container {{ CPCH-InformationItemIE-AuditRsp }}

CPCH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-CPCH-InformationItem-AuditRsp   CRITICALITY ignore  TYPE CPCH-InformationItem-AuditRsp      PRESENCE optional },
    ...
```

```
}

CPCH-InformationItem-AuditRsp ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  { { CPCH-InformationItem-AuditRsp-ExtIEs} }    OPTIONAL,
    ...
}

CPCH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AP-AICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Container {{ AP-AICH-InformationItemIE-AuditRsp }}

AP-AICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-AP-AICH-InformationItem-AuditRsp   CRITICALITY ignore   TYPE AP-AICH-InformationItem-AuditRsp    PRESENCE mandatory },
    ...
}

AP-AICH-InformationItem-AuditRsp ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  { { AP-AICH-InformationItem-AuditRsp-ExtIEs} }    OPTIONAL,
    ...
}

AP-AICH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CDCA-ICH-InformationList-AuditRsp ::= SEQUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Container {{ CDCA-ICH-InformationItemIE-AuditRsp }}

CDCA-ICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-CDCA-ICH-InformationItem-AuditRsp   CRITICALITY ignore   TYPE CDCA-ICH-InformationItem-AuditRsp    PRESENCE mandatory },
    ...
}

CDCA-ICH-InformationItem-AuditRsp ::= SEQUENCE {
    commonPhysicalChannelID             CommonPhysicalChannelID,
    resourceOperationalState            ResourceOperationalState,
    availabilityStatus                  AvailabilityStatus,
    iE-Extensions                       ProtocolExtensionContainer  { { CDCA-ICH-InformationItem-AuditRsp-ExtIEs} }    OPTIONAL,
    ...
}

CDCA-ICH-InformationItem-AuditRsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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```
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 {
    commonPhysicalChannelID           CommonPhysicalChannelID,
    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,
```

```
    commnonChannelsCapacityConsumptionLaw       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   }|
    -- This IE represents both the Common Measurement Object Type IE and the choice based on the Common Measurement Object Type
    -- as described in the tabular message format in subclause 9.1.
    { ID    id-CommonMeasurementType                      CRITICALITY reject      TYPE    CommonMeasurementType              PRESENCE mandatory
    }|
    { ID    id-MeasurementFilterCoefficient               CRITICALITY reject      TYPE    MeasurementFilterCoefficient       PRESENCE optional
    }|
    { ID    id-ReportCharacteristics                      CRITICALITY reject      TYPE    ReportCharacteristics              PRESENCE mandatory
    },
    ...
}

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

CommonMeasurementObjectType-CM-Rqst ::= CHOICE {
    cell                        Cell-CM-Rqst,
    rACH                        RACH-CM-Rqst,
    cPCH                        CPCH-CM-Rqst,
    ...
}

Cell-CM-Rqst ::= ProtocolIE-Container {{ CellIE-CM-Rqst }}
```

ETSI

```
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                       C-ID,
    timeSlot                   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                       C-ID,
    commonTransportChannelID   CommonTransportChannelID,
    iE-Extensions              ProtocolExtensionContainer { { RACHItem-CM-Rqst-ExtIEs} }   OPTIONAL,
    ...
}

RACHItem-CM-Rqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CPCH-CM-Rqst ::= ProtocolIE-Container {{ CPCHIE-CM-Rqst }}

CPCHIE-CM-Rqst NBAP-PROTOCOL-IES ::= {
    { ID id-CPCHItem-CM-Rqst   CRITICALITY reject   TYPE CPCHItem-CM-Rqst      PRESENCE optional },
    ...
}

CPCHItem-CM-Rqst ::= SEQUENCE {
    c-ID                       C-ID,
    commonTransportChannelID   CommonTransportChannelID,
    spreadingfactor            MinUL-ChannelisationCodeLength    OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { { CPCHItem-CM-Rqst-ExtIEs} }   OPTIONAL,
    ...
}

CPCHItem-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,
    cPCH                    CPCH-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 ::= {
    ...
}
```

ETSI

```
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 ::= {

    ...
}

CPCH-CM-Rsp ::= ProtocolIE-Container {{ CPCHIE-CM-Rsp }}

CPCHIE-CM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-CPCHItem-CM-Rsp   CRITICALITY ignore   TYPE CPCHItem-CM-Rsp       PRESENCE optional },
    ...
}

CPCHItem-CM-Rsp ::= SEQUENCE {
    commonMeasurementValue         CommonMeasurementValue,
    iE-Extensions                  ProtocolExtensionContainer  { { CPCHItem-CM-Rsp-ExtIEs} }    OPTIONAL,
    ...
 }

CPCHItem-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,
    cPCH                        CPCH-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 {
    measurementAvailabilityIndicator    MeasurementAvailabilityIndicator-CommonMeasurementReport,
    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 {
    measurementAvailabilityIndicator    MeasurementAvailabilityIndicator-CommonMeasurementReport,
    iE-Extensions                       ProtocolExtensionContainer {{ RACHItem-CM-Rprt-ExtIEs }}        OPTIONAL,
    ...
 }

RACHItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CPCH-CM-Rprt ::= ProtocolIE-Container {{ CPCHIE-CM-Rprt }}

CPCHIE-CM-Rprt NBAP-PROTOCOL-IES ::= {
    { ID id-CPCHItem-CM-Rprt   CRITICALITY ignore   TYPE CPCHItem-CM-Rprt       PRESENCE optional },
    ...
}

CPCHItem-CM-Rprt::= SEQUENCE {
    commonMeasurementValue          CommonMeasurementValue,
    iE-Extensions                   ProtocolExtensionContainer {{ CPCHItem-CM-Rprt-ExtIEs }}        OPTIONAL,
    ...
 }

CPCHItem-CM-Rprt-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MeasurementAvailabilityIndicator-CommonMeasurementReport::= CHOICE {
    measurementAvailable        MeasurementAvailable-CommonMeasurementReport,
    measurementnotAvailable     MeasurementnotAvailable-CommonMeasurementReport,
    ...
}

MeasurementAvailable-CommonMeasurementReport::= ProtocolIE-Container {{ MeasurementAvailableIE-CommonMeasurementReport }}

MeasurementAvailableIE-CommonMeasurementReport NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementAvailableItem-CommonMeasurementReport    CRITICALITY ignore TYPE MeasurementAvailableItem-CommonMeasurementReport    PRESENCE
mandatory},
    ...
```

```
}

MeasurementAvailableItem-CommonMeasurementReport ::= SEQUENCE {
    commonmeasurementValue        CommonMeasurementValue,
    ie-Extensions                 ProtocolExtensionContainer { { MeasurementAvailableItem-CommonMeasurementReport-ExTIEs} }     OPTIONAL,
    ...
}

MeasurementAvailableItem-CommonMeasurementReport-ExTIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MeasurementnotAvailable-CommonMeasurementReport::= ProtocolIE-Container {{ MeasurementnotAvailableIE-CommonMeasurementReport }}

MeasurementnotAvailableIE-CommonMeasurementReport NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementnotAvailableItem-CommonMeasurementReport CRITICALITY ignore TYPE MeasurementnotAvailableItem-CommonMeasurementReport   PRESENCE
mandatory},
    ...
}

MeasurementnotAvailableItem-CommonMeasurementReport ::= NULL

-- *************************************************************
--
-- 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                    CRITICALITY    reject    TYPE ConfigurationGenerationID
    PRESENCE    mandatory    }|
    { ID    id-T-Cell                                       CRITICALITY    reject    TYPE T-Cell                               PRESENCE
    mandatory    }|
    { ID    id-UARFCNforNu                                  CRITICALITY    reject    TYPE UARFCN                               PRESENCE
    mandatory    }|
    { ID    id-UARFCNforNd                                  CRITICALITY    reject    TYPE UARFCN                               PRESENCE
    mandatory    }|
    { ID    id-MaximumTransmissionPower                     CRITICALITY    reject    TYPE MaximumTransmissionPower
    PRESENCE    mandatory    }|
    { ID    id-Closed-Loop-Timing-Adjustment-Mode           CRITICALITY    reject    TYPE Closedlooptimingadjustmentmode
    PRESENCE    optional    }|
    { ID    id-PrimaryScramblingCode                        CRITICALITY    reject    TYPE PrimaryScramblingCode
    PRESENCE    mandatory    }|
    { ID    id-DL-TPC-Pattern01Count                        CRITICALITY    reject        TYPE  DL-TPC-Pattern01Count
    PRESENCE    mandatory    }|
    { ID    id-Synchronisation-Configuration-Cell-SetupRqst CRITICALITY    reject    TYPE Synchronisation-Configuration-Cell-SetupRqst
    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    }|
    { ID    id-Limited-power-increase-information-Cell-SetupRqstFDD CRITICALITY      reject     TYPE Limited-power-increase-information-Cell-
SetupRqstFDD         PRESENCE    mandatory    },
    ...
}

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

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

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

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

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

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

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

```
}

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

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

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

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

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

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

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

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

BCH-Information-Cell-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
```

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```
    bCH-Power                               DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { BCH-Information-Cell-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

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

Limited-power-increase-information-Cell-SetupRqstFDD ::= SEQUENCE {
    powerRaiseLimit                         PowerRaiseLimit,
    dLPowerAveragingWindowSize              DLPowerAveragingWindowSize,
    iE-Extensions                           ProtocolExtensionContainer { { Limited-power-increase-information-Cell-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

Limited-power-increase-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-DPCHConstant                                   CRITICALITY    reject    TYPE ConstantValue                        PRESENCE
    mandatory    }|
```

```
    { ID    id-PUSCHConstant                              CRITICALITY    reject    TYPE ConstantValue                              PRESENCE
    mandatory    }|
    { ID    id-PRACHConstant                              CRITICALITY    reject    TYPE ConstantValue                              PRESENCE
    mandatory    }|
    { ID    id-Synchronisation-Configuration-Cell-SetupRqst    CRITICALITY    reject    TYPE Synchronisation-Configuration-Cell-SetupRqst
    PRESENCE    mandatory    }|
    { ID    id-SCH-Information-Cell-SetupRqstTDD           CRITICALITY    reject    TYPE SCH-Information-Cell-SetupRqstTDD           PRESENCE
    mandatory    }|
    { ID    id-PCCPCH-Information-Cell-SetupRqstTDD        CRITICALITY    reject    TYPE PCCPCH-Information-Cell-SetupRqstTDD
    PRESENCE    mandatory    }|
    { ID    id-TimeSlotConfigurationList-Cell-SetupRqstTDD    CRITICALITY    reject    TYPE TimeSlotConfigurationList-Cell-SetupRqstTDD
    PRESENCE    mandatory    },
    ...
}

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


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

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

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

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

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

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

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

```
    ...
}

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

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

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

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

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

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


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

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

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

TimeSlotConfigurationItem-Cell-SetupRqstTDD ::= SEQUENCE {
    timeSlot                           TimeSlot,
    timeSlotStatus                     TimeSlotStatus,
```

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```
    timeSlotDirection                       TimeSlotDirection,
    iE-Extensions                           ProtocolExtensionContainer { { TimeSlotConfigurationItem-Cell-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

```
}

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

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

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

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

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

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

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

```
    { ID    id-PUSCHConstant                                        CRITICALITY    reject    TYPE ConstantValue                                        PRESENCE
    optional    }|
    { ID    id-PRACHConstant                                        CRITICALITY    reject    TYPE ConstantValue                                        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,
    commnonChannelsCapacityConsumptionLaw   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
},
    ...
}
```

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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,
    commnonChannelsCapacityConsumptionLaw       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,
    pCPCH-InformationList                  PCPCH-InformationList-ResourceStatusInd         OPTIONAL,
    cPCH-InformationList                   CPCH-InformationList-ResourceStatusInd          OPTIONAL,
    aP-AICH-InformationList                AP-AICH-InformationList-ResourceStatusInd       OPTIONAL,
    cDCA-ICH-InformationList               CDCA-ICH-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,
```

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```
    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 ::= {
    ...
}

PCPCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxPCPCHCell)) OF ProtocolIE-Container {{ PCPCH-InformationItemIE-ResourceStatusInd }}

PCPCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-PCPCH-InformationItem-ResourceStatusInd   CRITICALITY ignore   TYPE PCPCH-InformationItem-ResourceStatusInd   PRESENCE optional },
    ...
}
PCPCH-InformationItem-ResourceStatusInd ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    resourceOperationalState                ResourceOperationalState,
    availabilityStatus                      AvailabilityStatus,
    iE-Extensions                           ProtocolExtensionContainer { { PCPCH-InformationItem-ResourceStatusInd-ExtIEs} }  OPTIONAL,
    ...
}

PCPCH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CPCH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Container {{ CPCH-InformationItemIE-ResourceStatusInd }}

CPCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-CPCH-InformationItem-ResourceStatusInd   CRITICALITY ignore TYPE CPCH-InformationItem-ResourceStatusInd   PRESENCE optional },
    ...
}

CPCH-InformationItem-ResourceStatusInd  ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    resourceOperationalState                ResourceOperationalState,
    availabilityStatus                      AvailabilityStatus,
    iE-Extensions                           ProtocolExtensionContainer { { CPCH-InformationItem-ResourceStatusInd-ExtIEs} }  OPTIONAL,
```

```
    ...
}

CPCH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

AP-AICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Container {{ AP-AICH-InformationItemIE-ResourceStatusInd
}}

AP-AICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-AP-AICH-InformationItem-ResourceStatusInd   CRITICALITY ignore  TYPE AP-AICH-InformationItem-ResourceStatusInd     PRESENCE optional },
    ...
}

AP-AICH-InformationItem-ResourceStatusInd ::= SEQUENCE {
    commonPhysicalChannelID                    CommonPhysicalChannelID,
    resourceOperationalState                   ResourceOperationalState,
    availabilityStatus                         AvailabilityStatus,
    iE-Extensions                              ProtocolExtensionContainer { { AP-AICH-InformationItem-ResourceStatusInd-ExtIEs} }OPTIONAL,
    ...
}

AP-AICH-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CDCA-ICH-InformationList-ResourceStatusInd ::= SEQUENCE (SIZE (1..maxCPCHCell)) OF ProtocolIE-Container {{ CDCA-ICH-InformationItemIE-ResourceStatusInd
}}

CDCA-ICH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-CDCA-ICH-InformationItem-ResourceStatusInd   CRITICALITY ignore TYPE CDCA-ICH-InformationItem-ResourceStatusInd     PRESENCE optional },
    ...
}

CDCA-ICH-InformationItem-ResourceStatusInd ::= SEQUENCE {
    commonPhysicalChannelID                    CommonPhysicalChannelID,
    resourceOperationalState                   ResourceOperationalState,
    availabilityStatus                         AvailabilityStatus,
    iE-Extensions                              ProtocolExtensionContainer { { CDCA-ICH-InformationItem-ResourceStatusInd-ExtIEs} }  OPTIONAL,
    ...
}

CDCA-ICH-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 {
    commonPhysicalChannelID               CommonPhysicalChannelID,
    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,
    deletionIndicator                DeletionIndicator-SystemInfoUpdate,
    iE-Extensions                    ProtocolExtensionContainer { { MIB-SIB-InformationItem-SystemInfoUpdateRqst-ExtIEs} }     OPTIONAL,
    ...
}

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

```
}

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

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

No-DeletionIE-SystemInfoUpdate NBAP-PROTOCOL-IES ::= {
    { ID id-No-DeletionItem-SystemInfoUpdate   CRITICALITY reject   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               OPTIONAL,
    segmentInformationList                  SegmentInformationList-SystemInfoUpdate,
    iE-Extensions                           ProtocolExtensionContainer { { No-DeletionItem-SystemInfoUpdate-ExtIEs} }    OPTIONAL,
    ...
}

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

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

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

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

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

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

-- *************************************************************
--
```

```
-- 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    }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information   CRITICALITY reject        TYPE Transmission-Gap-Pattern-Sequence-Information
    PRESENCE optional } |
    { ID id-Active-Pattern-Sequence-Information             CRITICALITY reject        TYPE Active-Pattern-Sequence-Information  PRESENCE optional
    },
    ...
}

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

UL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    ul-ScramblingCode                      UL-ScramblingCode,
    minUL-ChannelisationCodeLength         MinUL-ChannelisationCodeLength,
    maxNrOfUL-DPDCHs                        MaxNrOfUL-DPDCHs        OPTIONAL,
    -- This IE is present only if "Min UL Channelisation Code length" equals to  4 --
    ul-PunctureLimit                       PunctureLimit,
    tFCS                                   TFCS,
    ul-DPCCH-SlotFormat                    UL-DPCCH-SlotFormat,
    ul-SIR-Target                          UL-SIR,
    diversityMode                          DiversityMode,
    d-FieldLength                          D-FieldLength          OPTIONAL
    -- This IE is present only if Feed Back mode diversity is activated -- ,
    sSDT-CellID-Length                     SSDT-CellID-Length     OPTIONAL,
    s-FieldLength                          S-FieldLength          OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD ::= SEQUENCE {
    tFCS                                   TFCS,
    dl-DPCH-SlotFormat                     DL-DPCH-SlotFormat,
```

```
    tFCI-SignallingMode                     TFCI-SignallingMode,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    -- this IE is only present if the DL DPCH slot format is equal to any of the value 12 to 16 --
    multiplexingPosition                    MultiplexingPosition,
    pDSCH-RL-ID                             RL-ID           OPTIONAL,
    -- This IE is present only if the DSCH Information group is present --
    pDSCH-CodeMapping                       PDSCH-CodeMapping       OPTIONAL,
    -- This IE is present only if the DSCH Information group is present --
    powerOffsetInformation                  PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-TPC-DownlinkStepSize                FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease                    LimitedPowerIncrease,
    iE-Extensions                           ProtocolExtensionContainer { { DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-DPCH-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

DCH-InformationItem-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-SpecificInformationList-RL-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-SpecificItem-RL-SetupRqstFDD

DCH-SpecificItem-RL-SetupRqstFDD ::=     SEQUENCE {
    dCH-ID                           DCH-ID,
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```
    ul-TransportFormatSet               TransportFormatSet,
    dl-TransportFormatSet               TransportFormatSet,
    frameHandlingPriority               FrameHandlingPriority,
    qE-Selector                         QE-Selector,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-SpecificItem-RL-SetupRqstFDD-ExtIEs} }  OPTIONAL,
    ...
}

DCH-SpecificItem-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,
    firstRLS-indicator                  FirstRLS-Indicator,
    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,
    transmissionGapPatternSequenceCodeInformation    TransmissionGapPatternSequenceCodeInformation    OPTIONAL,
    -- This IE is present only if Downlink compressed mode method is set to "SF/2"in the Transmission Gap Pattern Sequence Information IE.
    iE-Extensions                       ProtocolExtensionContainer { { DL-CodeInformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CodeInformationItem-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- *************************************************************
--
-- RADIO LINK SETUP REQUEST TDD
--
-- *************************************************************

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

RadioLinkSetupRequestTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                  CRITICALITY reject      TYPE  CRNC-CommunicationContextID                      PRESENCE
    mandatory   }|
    { ID    id-UL-CCTrCH-InformationList-RL-SetupRqstTDD    CRITICALITY notify      TYPE  UL-CCTrCH-InformationList-RL-SetupRqstTDD        PRESENCE
    optional    }|
    { ID    id-UL-DPCH-InformationList-RL-SetupRqstTDD      CRITICALITY notify      TYPE  UL-DPCH-InformationList-RL-SetupRqstTDD
    PRESENCE    optional    }|
    { ID    id-DL-CCTrCH-InformationList-RL-SetupRqstTDD    CRITICALITY notify      TYPE  DL-CCTrCH-InformationList-RL-SetupRqstTDD        PRESENCE
    optional    }|
    { ID    id-DL-DPCH-InformationList-RL-SetupRqstTDD      CRITICALITY notify      TYPE  DL-DPCH-InformationList-RL-SetupRqstTDD
    PRESENCE    optional    }|
    { ID    id-DCH-InformationList-RL-SetupRqstTDD          CRITICALITY reject      TYPE  DCH-InformationList-RL-SetupRqstTDD              PRESENCE
    optional    }|
```

```
    { ID    id-DSCH-InformationList-RL-SetupRqstTDD                 CRITICALITY reject        TYPE DSCH-InformationList-RL-SetupRqstTDD            PRESENCE
    optional    }|
    { ID    id-USCH-InformationList-RL-SetupRqstTDD                 CRITICALITY reject        TYPE USCH-InformationList-RL-SetupRqstTDD            PRESENCE
    optional    }|
    { ID    id-RL-Information-RL-SetupRqstTDD                        CRITICALITY reject        TYPE RL-Information-RL-SetupRqstTDD                  PRESENCE
    mandatory    },
    ...
}


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


UL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE(1..maxNrOfCCTrCHs)) OF
    ProtocolIE-Container{{ UL-CCTrCH-InformationItemIE-RL-SetupRqstTDD }}


UL-CCTrCH-InformationItemIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID    id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD        CRITICALITY    notify        TYPE UL-CCTrCH-InformationItem-RL-SetupRqstTDD
    PRESENCE    mandatory},
    ...
}


UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID                             CCTrCH-ID,
    tFCS                                  TFCS,
    tFCI-Coding                           TFCI-Coding,
    punctureLimit                         PunctureLimit,
    iE-Extensions                         ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}


UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


UL-DPCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-DPCH-InformationItem-RL-SetupRqstTDD


UL-DPCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    dPCH-ID                               DPCH-ID,
    tdd-ChannelisationCode                TDD-ChannelisationCode,
    burstType                             BurstType,
    midambleShift                         MidambleShift,
    timeSlot                              TimeSlot,
    tdd-PhysicalChannelOffset             TDD-PhysicalChannelOffset,
    repetitionPeriod                      RepetitionPeriod,
    repetitionLength                      RepetitionLength,
    tFCI-Presence                         TFCI-Presence,
    iE-Extensions                         ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}
```

```
UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Container{{ DL-CCTrCH-InformationItemIE-RL-SetupRqstTDD
}}

DL-CCTrCH-InformationItemIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID   id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD          CRITICALITY    notify     TYPE DL-CCTrCH-InformationItem-RL-SetupRqstTDD
    PRESENCE   mandatory},
    ...
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    cCTrCH-ID                           CCTrCH-ID,
    tFCS                                TFCS,
    tFCI-Coding                         TFCI-Coding,
    punctureLimit                       PunctureLimit,
    tdd-TPC-DownlinkStepSize            TDD-TPC-DownlinkStepSize,
    iE-Extensions                       ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-DPCH-InformationItem-RL-SetupRqstTDD

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

DL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-InformationItem-RL-SetupRqstTDD

DCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
```

```
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dCH-SpecificInformationList         DCH-SpecificInformationList-RL-SetupRqstTDD,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

DCH-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-SpecificInformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-SpecificItem-RL-SetupRqstTDD

DCH-SpecificItem-RL-SetupRqstTDD ::=     SEQUENCE {
    dCH-ID                              DCH-ID,
    ul-CCTrCH-ID                        CCTrCH-ID,
    dl-CCTrCH-ID                        CCTrCH-ID,
    ul-TransportFormatSet               TransportFormatSet,
    dl-TransportFormatSet               TransportFormatSet,
    frameHandlingPriority               FrameHandlingPriority        OPTIONAL,
    qE-Selector                         QE-Selector,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-SpecificItem-RL-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

DCH-SpecificItem-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,
    qE-Selector                             QE-Selector,
    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         DiversityIndication-RL-SetupRspFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    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                             Combining-RL-SetupRspFDD,
    nonCombiningOrFirstRL                 NonCombiningOrFirstRL-RL-SetupRspFDD,
    ...
}

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                                 RL-ID,
    iE-Extensions                         ProtocolExtensionContainer { { Combining-RL-SetupRspFDD-ExtIEs} }    OPTIONAL,
    ...
}

Combining-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

NonCombiningOrFirstRL-RL-SetupRspFDD ::= ProtocolIE-Container {{ NonCombiningOrFirstRLIE-RL-SetupRspFDD }}


NonCombiningOrFirstRLIE-RL-SetupRspFDD NBAP-PROTOCOL-IES ::= {
    { ID id-NonCombiningOrFirstRLItem-RL-SetupRspFDD   CRITICALITY ignore   TYPE NonCombiningOrFirstRLItem-RL-SetupRspFDD   PRESENCE mandatory },
    ...
}


NonCombiningOrFirstRLItem-RL-SetupRspFDD ::= SEQUENCE {
    dCH-InformationResponseList                    DCH-InformationResponseList-RL-SetupRspFDD   OPTIONAL ,
    iE-Extensions                                  ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} }   OPTIONAL,
    ...
}


NonCombiningOrFirstRLItem-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                                 DCH-ID,
    bindingID                              BindingID,
    transportLayerAddress                  TransportLayerAddress,
    iE-Extensions                          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    }|
    { ID    id-NodeB-CommunicationContextID                                       CRITICALITY    ignore    TYPE  NodeB-CommunicationContextID
             PRESENCE    mandatory    }|
    { ID    id-CommunicationControlPortID                                         CRITICALITY    ignore    TYPE  CommunicationControlPortID
             PRESENCE    optional    }|
    { ID    id-CauseLevel-RL-SetupFailureFDD                                      CRITICALITY    ignore    TYPE  CauseLevel-RL-SetupFailureFDD
    PRESENCE    mandatory    }|
    { 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,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    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,
    nonCombiningOrFirstRL                        NonCombiningOrFirstRL-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 ::= {
    ...
}

NonCombiningOrFirstRL-RL-SetupFailureFDD ::= ProtocolIE-Container {{ NonCombiningOrFirstRLIE-RL-SetupFailureFDD }}

NonCombiningOrFirstRLIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-NonCombiningOrFirstRLItem-RL-SetupFailureFDD   CRITICALITY ignore   TYPE NonCombiningOrFirstRLItem-RL-SetupFailureFDD    PRESENCE mandatory
},
    ...
}

NonCombiningOrFirstRLItem-RL-SetupFailureFDD ::= SEQUENCE {
    dCH-InformationResponseList            DCH-InformationRespList-RL-SetupFailureFDD  OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs} }    OPTIONAL,
    ...
}

NonCombiningOrFirstRLItem-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-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 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}|
    { ID id-Compressed-Mode-Deactivation-Flag-RL-AdditionRqstFDD          CRITICALITY reject          TYPE Compressed-Mode-Deactivation-Flag-RL-
AdditionRqstFDD   PRESENCE optional },
    ...
}

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,
    transmissionGapPatternSequenceCodeInformation      TransmissionGapPatternSequenceCodeInformation    OPTIONAL,
    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              CRITICALITY    reject      TYPE RL-Information-RL-AdditionRqstTDD
    PRESENCE    mandatory   },
    ...
}

RadioLinkAdditionRequestTDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

ETSI

```
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          CRITICALITY    notify      TYPE UL-DPCH-InformationItem-RL-AdditionRqstTDD
    PRESENCE    mandatory},
    ...
}

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,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    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..maxNrOfDCHs)) 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,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    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-CauseLevel-RL-AdditionFailureFDD   CRITICALITY    ignore    TYPE    CauseLevel-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     Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD,
    successful-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,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator                        SSDT-SupportIndicator,
    iE-Extensions                                ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs} }
    OPTIONAL,
```

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```
   ...
}

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-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 {
```

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```
    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 PREPARE FDD
--
```

```
-- *****************************************************************

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

RadioLinkReconfigurationPrepareFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID                  CRITICALITY    reject          TYPE NodeB-CommunicationContextID             PRESENCE
    mandatory   } |
    { ID    id-UL-DPCH-Information-RL-ReconfPrepFDD           CRITICALITY    reject          TYPE UL-DPCH-Information-RL-ReconfPrepFDD       PRESENCE
    optional    } |
    { ID    id-DL-DPCH-Information-RL-ReconfPrepFDD           CRITICALITY    reject          TYPE DL-DPCH-Information-RL-ReconfPrepFDD       PRESENCE
    optional    } |
    { ID    id-DCH-ModifyList-RL-ReconfPrepFDD               CRITICALITY    reject          TYPE DCH-ModifyList-RL-ReconfPrepFDD           PRESENCE
    optional    } |
    { ID    id-DCH-AddList-RL-ReconfPrepFDD                  CRITICALITY    reject          TYPE DCH-AddList-RL-ReconfPrepFDD              PRESENCE
    optional    } |
    { ID    id-DCH-DeleteList-RL-ReconfPrepFDD               CRITICALITY    reject          TYPE DCH-DeleteList-RL-ReconfPrepFDD           PRESENCE
    optional    } |
    { ID    id-DSCH-ModifyList-RL-ReconfPrepFDD              CRITICALITY    reject          TYPE DSCH-ModifyList-RL-ReconfPrepFDD          PRESENCE
    optional    } |
    { ID    id-DSCH-AddList-RL-ReconfPrepFDD                 CRITICALITY    reject          TYPE DSCH-AddList-RL-ReconfPrepFDD             PRESENCE
    optional    } |
    { ID    id-DSCH-DeleteList-RL-ReconfPrepFDD              CRITICALITY    reject          TYPE DSCH-DeleteList-RL-ReconfPrepFDD          PRESENCE
    optional    } |
    { ID    id-RL-InformationList-RL-ReconfPrepFDD           CRITICALITY    reject          TYPE RL-InformationList-RL-ReconfPrepFDD       PRESENCE
    optional    }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information  CRITICALITY    reject          TYPE Transmission-Gap-Pattern-Sequence-Information
PRESENCE optional },
    ...
}

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

UL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    ul-ScramblingCode                              UL-ScramblingCode                  OPTIONAL,
    ul-SIR-Target                                  UL-SIR                             OPTIONAL,
    minUL-ChannelisationCodeLength                 MinUL-ChannelisationCodeLength     OPTIONAL,
    maxNrOfUL-DPDCHs                               MaxNrOfUL-DPDCHs                    OPTIONAL,
    -- This IE is present only if minUL-ChannelisationCodeLength equals to 4
    ul-PunctureLimit                               PunctureLimit                      OPTIONAL,
    tFCS                                          TFCS        OPTIONAL,
    ul-DPCCH-SlotFormat                            UL-DPCCH-SlotFormat                OPTIONAL,
    sSDT-CellIDLength                              SSDT-CellID-Length                 OPTIONAL,
    s-FieldLength                                  S-FieldLength                      OPTIONAL,
    iE-Extensions                                 ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }    OPTIONAL,
    ...
```

```
}

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

DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    tFCS                                        TFCS                            OPTIONAL,
    dl-DPCH-SlotFormat                          DL-DPCH-SlotFormat              OPTIONAL,
    tFCI-SignallingMode                         TFCI-SignallingMode            OPTIONAL,
    tFCI-Presence                               TFCI-Presence                  OPTIONAL,
    -- This IE is only present if the DL DPCH Slot Format is equal to any of the value from 12 to 16
    multiplexingPosition                        MultiplexingPosition           OPTIONAL,
    pDSCH-CodeMapping                           PDSCH-CodeMapping              OPTIONAL,
    pDSCH-RL-ID                                 RL-ID                          OPTIONAL,
    limitedPowerIncrease                        LimitedPowerIncrease           OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

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

DCH-ModifyList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfPrepFDD

DCH-ModifyItem-RL-ReconfPrepFDD  ::= SEQUENCE {
    ul-FP-Mode                  UL-FP-Mode      OPTIONAL,
    toAWS                       ToAWS           OPTIONAL,
    toAWE                       ToAWE           OPTIONAL,
    dCH-SpecificInformationList DCH-ModifySpecificInformationList-RL-ReconfPrepFDD,
    iE-Extensions               ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifySpecificInformationList-RL-ReconfPrepFDD::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-RL-ReconfPrepFDD

DCH-ModifySpecificItem-RL-ReconfPrepFDD::=  SEQUENCE {
    dCH-ID                      DCH-ID,
    ul-TransportFormatSet               TransportFormatSet          OPTIONAL,
    dl-TransportFormatSet               TransportFormatSet          OPTIONAL,
    frameHandlingPriority               FrameHandlingPriority       OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-ModifySpecificItem-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

DCH-ModifySpecificItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

DCH-AddList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfPrepFDD

DCH-AddItem-RL-ReconfPrepFDD ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dCH-SpecificInformationList         DCH-AddSpecificInformationList-RL-ReconfPrepFDD,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-AddItem-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

DCH-AddItem-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddSpecificInformationList-RL-ReconfPrepFDD::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddSpecificItem-RL-ReconfPrepFDD

DCH-AddSpecificItem-RL-ReconfPrepFDD::= SEQUENCE {
    dCH-ID                                  DCH-ID,
    ul-TransportFormatSet                   TransportFormatSet,
    dl-TransportFormatSet                   TransportFormatSet,
    frameHandlingPriority                   FrameHandlingPriority,
    qE-Selector                             QE-Selector,
    iE-Extensions                           ProtocolExtensionContainer { { DCH-AddSpecificItem-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

DCH-AddSpecificItem-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,
    transmissionGapPatternSequenceCodeInformation    TransmissionGapPatternSequenceCodeInformation  OPTIONAL,
    -- This IE is present only if Downlink compressed mode method is set to "SF/2" in the Transmission Gap Pattern Sequence Information IE.
    iE-Extensions                                    ProtocolExtensionContainer { { DL-CodeInformationList-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

DL-CodeInformationList-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK RECONFIGURATION PREPARE TDD
--
-- **************************************************************

RadioLinkReconfigurationPrepareTDD ::= SEQUENCE {
    protocolIEs              ProtocolIE-Container    {{RadioLinkReconfigurationPrepareTDD-IEs}},
```

```
    protocolExtensions      ProtocolExtensionContainer  {{RadioLinkReconfigurationPrepareTDD-Extensions}}    OPTIONAL,
    ...
}

RadioLinkReconfigurationPrepareTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID                     CRITICALITY    reject    TYPE NodeB-CommunicationContextID
    PRESENCE    mandatory   }|
    { ID    id-UL-CCTrCH-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,
```

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```
    tFCI-Coding                             TFCI-Coding,
    punctureLimit                           PunctureLimit,
    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,
    burstType                               BurstType,
    midambleShift                           MidambleShift,
    timeSlot                                TimeSlot,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tFCI-Presence                           TFCI-Presence,
    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                                CCTrCH-ID,
    tFCS                                     TFCS,
    tFCI-Coding                              TFCI-Coding,
    punctureLimit                            PunctureLimit,
```

```
    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,
    burstType                                  BurstType,
    midambleShift                              MidambleShift,
    timeSlot                                   TimeSlot,
    tdd-PhysicalChannelOffset                  TDD-PhysicalChannelOffset,
    repetitionPeriod                           RepetitionPeriod,
    rpetitionLength                            RepetitionLength,
    tFCI-Presence                              TFCI-Presence,
    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 {
    cCTrCH-ID                                  CCTrCH-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-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
```

```
}

DL-CCTrCH-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 {
    ul-FP-Mode                      UL-FP-Mode      OPTIONAL,
    toAWS                           ToAWS           OPTIONAL,
```

```
    toAWE                                  ToAWE          OPTIONAL,
    dCH-SpecificInformationList            DCH-ModifySpecificInformationList-RL-ReconfPrepTDD,
    iE-Extensions                          ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifySpecificInformationList-RL-ReconfPrepTDD::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-RL-ReconfPrepTDD

DCH-ModifySpecificItem-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,
    iE-Extensions                          ProtocolExtensionContainer { { DCH-ModifySpecificItem-RL-ReconfPrepTDD-ExtIEs} }     OPTIONAL,
    ...
 }

DCH-ModifySpecificItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfPrepTDD

DCH-AddItem-RL-ReconfPrepTDD     ::= SEQUENCE {
    payloadCRC-PresenceIndicator      PayloadCRC-PresenceIndicator,
    ul-FP-Mode                        UL-FP-Mode,
    toAWS                             ToAWS,
    toAWE                             ToAWE,
    dCH-SpecificInformationList       DCH-AddSpecificInformationList-RL-ReconfPrepTDD,
    iE-Extensions                     ProtocolExtensionContainer { { DCH-AddItem-RL-ReconfPrepTDD-ExtIEs} }      OPTIONAL,
    ...
}

DCH-AddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddSpecificInformationList-RL-ReconfPrepTDD::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddSpecificItem-RL-ReconfPrepTDD

DCH-AddSpecificItem-RL-ReconfPrepTDD::= SEQUENCE {
    dCH-ID                                 DCH-ID,
    ul-CCTrCH-ID                           CCTrCH-ID,
    dl-CCTrCH-ID                           CCTrCH-ID,
    ul-TransportFormatSet                  TransportFormatSet,
    dl-TransportFormatS                    TransportFormatSet,
```

```
    frameHandlingPriority                      FrameHandlingPriority,
    qE-Selector                                QE-Selector,
    iE-Extensions                              ProtocolExtensionContainer { { DCH-AddSpecificItem-RL-ReconfPrepTDD-ExtIEs} }        OPTIONAL,
    ...
}

DCH-AddSpecificItem-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,
    qE-Selector                               QE-Selector,
    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-InformationResponseList-RL-ReconfReady    DCH-InformationResponseList-RL-ReconfReady  OPTIONAL,
    dSCH-InformationResponseList-RL-ReconfReady   DSCH-InformationResponseList-RL-ReconfReady OPTIONAL,
    uSCH-InformationResponseList-RL-ReconfReady   USCH-InformationResponseList-RL-ReconfReady OPTIONAL,
    iE-Extensions                                 ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfReady-ExtIEs} }     OPTIONAL,
    ...
}

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

DCH-InformationResponseList-RL-ReconfReady::= ProtocolIE-Container {{ DCH-InformationResponseListIEs-RL-ReconfReady }}

DCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponseListIE-RL-ReconfReady   CRITICALITY ignore   TYPE DCH-InformationResponseListIE-RL-ReconfReady PRESENCE mandatory },
    ...
}

DCH-InformationResponseListIE-RL-ReconfReady ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-ReconfReady

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

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

DSCH-InformationResponseList-RL-ReconfReady::= ProtocolIE-Container {{ DSCH-InformationResponseListIEs-RL-ReconfReady }}

DSCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationResponseListIE-RL-ReconfReady   CRITICALITY ignore   TYPE DSCH-InformationResponseListIE-RL-ReconfReadyPRESENCE mandatory },
    ...
}

DSCH-InformationResponseListIE-RL-ReconfReady ::= SEQUENCE (SIZE (0..maxNrOfDSCHs)) OF DSCH-InformationResponseItem-RL-ReconfReady

DSCH-InformationResponseItem-RL-ReconfReady ::= SEQUENCE {
    dSCH-ID                               DSCH-ID,
    bindingID                             BindingID,
```

```
    transportLayerAddress                       TransportLayerAddress,
    iE-Extensions                               ProtocolExtensionContainer { { DSCH-InformationResponseItem-RL-ReconfReady-ExtIEs } }      OPTIONAL,
    ...
}

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

USCH-InformationResponseList-RL-ReconfReady::= ProtocolIE-Container {{ USCH-InformationResponseListIEs-RL-ReconfReady }}

USCH-InformationResponseListIEs-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponseListIE-RL-ReconfReady   CRITICALITY ignore  TYPE USCH-InformationResponseListIE-RL-ReconfReady    PRESENCE mandatory
},
    ...
}

USCH-InformationResponseListIE-RL-ReconfReady ::= SEQUENCE (SIZE (0..maxNrOfUSCHs)) OF USCH-InformationResponseItem-RL-ReconfReady

USCH-InformationResponseItem-RL-ReconfReady ::= SEQUENCE {
    uSCH-ID                                     USCH-ID,
    bindingID                                   BindingID,
    transportLayerAddress                       TransportLayerAddress,
    iE-Extensions                               ProtocolExtensionContainer { { USCH-InformationResponseItem-RL-ReconfReady-ExtIEs } }      OPTIONAL,
    ...
}

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

-- *************************************************************
--
-- 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-CauseLevel-RL-ReconfFailure  CRITICALITY    ignore    TYPE    CauseLevel-RL-ReconfFailure     PRESENCE mandatory   } |
    { 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 ::= {
    ...
}

RLSpecificCauseList-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 ::= {
    ...
}

-- *************************************************************
--
-- 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   }|
    { ID    id-Active-Pattern-Sequence-Information  CRITICALITY    ignore    TYPE    Active-Pattern-Sequence-Information  PRESENCE optional },
    ...
}

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    }|
    { ID id-Transmission-Gap-Pattern-Sequence-Information    CRITICALITY    reject    TYPE    Transmission-Gap-Pattern-Sequence-Information  PRESENCE
optional },
    ...
}

RadioLinkReconfigurationRequestFDD-Extensions NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    ul-TFCS                                        TFCS            OPTIONAL,
    iE-Extensions                                  ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    dl-TFCS                                        TFCS            OPTIONAL,
    tFCI-SignallingMode                            TFCI-SignallingMode                 OPTIONAL,
    pDSCH-CodeMapping                              PDSCH-CodeMapping                   OPTIONAL,
    pDSCH-RL-ID                                    RL-ID                               OPTIONAL,
    limitedPowerIncrease                           LimitedPowerIncrease                OPTIONAL,
    iE-Extensions                                  ProtocolExtensionContainer { { DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
 }

DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


DCH-ModifyList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfRqstFDD

DCH-ModifyItem-RL-ReconfRqstFDD ::= SEQUENCE {
    ul-FP-Mode                      UL-FP-Mode      OPTIONAL,
    toAWS                           ToAWS           OPTIONAL,
    toAWE                           ToAWE           OPTIONAL,
    dCH-SpecificInformationList     DCH-ModifySpecificInformationList-RL-ReconfRqstFDD,
    iE-Extensions                                  ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs} }       OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifySpecificInformationList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-RL-ReconfRqstFDD

DCH-ModifySpecificItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dCH-ID                                  DCH-ID,
    ul-TransportFormatSet                          TransportFormatSet      OPTIONAL,
    dl-TransportFormatSet                          TransportFormatSet      OPTIONAL,
    frameHandlingPriority                          FrameHandlingPriority   OPTIONAL,
    iE-Extensions                                  ProtocolExtensionContainer { { DCH-ModifySpecificItem-RL-ReconfRqstFDD-ExtIEs} }       OPTIONAL,
    ...
```

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```
}

DCH-ModifySpecificItem-RL-ReconfRqstFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRqstFDD

DCH-AddItem-RL-ReconfRqstFDD ::= SEQUENCE {
    payloadCRC-PresenceIndicator        PayloadCRC-PresenceIndicator,
    ul-FP-Mode                          UL-FP-Mode,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    dCH-SpecificInformationList         DCH-AddSpecificInformationList-RL-ReconfRqstFDD,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-Add-RL-ReconfRqstFDDItem-ExtIEs} }    OPTIONAL,
    ...
}

DCH-Add-RL-ReconfRqstFDDItem-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddSpecificInformationList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddSpecificItem-RL-ReconfRqstFDD

DCH-AddSpecificItem-RL-ReconfRqstFDD ::=    SEQUENCE {
    dCH-ID                              DCH-ID,
    ul-TransportFormatSet               TransportFormatSet,
    dl-TransportFormatSet               TransportFormatSet,
    frameHandlingPriority               FrameHandlingPriority,
    qE-Selector                         QE-Selector,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-AddSpecificItem-ExtIEs} }    OPTIONAL,
    ...
}

DCH-AddSpecificItem-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,
    dl-CodeInformationList                   DL-CodeInformationList-RL-ReconfRqstFDD    OPTIONAL,
    -- This IE is group present only if Downlink compressed mode method is set to "SF/2'"in the Transmission Gap Pattern Sequence Information IE.
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationItem-RL-ReconfRqstFDD-ExtIEs} }      OPTIONAL,
    ...
}

DL-CodeInformationList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfDLCodes)) OF DL-CodeInformationItem-RL-ReconfRqstFDD

DL-CodeInformationItem-RL-ReconfRqstFDD ::= SEQUENCE {
    dl-scramblingCode                             DL-ScramblingCode                    OPTIONAL,
    fdd-DL-ChannelisationCodeNumber               FDD-DL-ChannelisationCodeNumber       OPTIONAL,
    transmissionGapPatternSequenceCodeInformation TransmissionGapPatternSequenceCodeInformation OPTIONAL,
    iE-Extensions                                 ProtocolExtensionContainer { { DL-CodeInformationList-RL-ReconfRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

DL-CodeInformationList-RL-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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-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 {
    ul-FP-Mode                    UL-FP-Mode     OPTIONAL,
    toAWS                         ToAWS          OPTIONAL,
    toAWE                         ToAWE          OPTIONAL,
    dCH-SpecificInformationList   DCH-ModifySpecificInformationList-RL-ReconfRqstTDD,
    iE-Extensions                 ProtocolExtensionContainer { { DCH-ModifyItem-RL-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

DCH-ModifyItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifySpecificInformationList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-ModifySpecificItem-RL-ReconfRqstTDD

DCH-ModifySpecificItem-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,
    iE-Extensions                                  ProtocolExtensionContainer { { DCH-ModifySpecificItem-RL-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
    ...
}

DCH-ModifySpecificItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRqstTDD

DCH-AddItem-RL-ReconfRqstTDD ::= SEQUENCE {
    payloadCRC-PresenceIndicator      PayloadCRC-PresenceIndicator,
    ul-FP-Mode                        UL-FP-Mode,
    toAWS                             ToAWS,
    toAWE                             ToAWE,
    dCH-SpecificInformationList       DCH-AddSpecificInformationList-RL-ReconfRqstTDD,
    iE-Extensions                     ProtocolExtensionContainer { { DCH-AddItem-RL-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
    ...
}

DCH-AddItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-AddSpecificInformationList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-AddSpecificItem-RL-ReconfRqstTDD

DCH-AddSpecificItem-RL-ReconfRqstTDD ::=     SEQUENCE {
    dCH-ID                                DCH-ID,
    ul-CCTrCH-ID                          CCTrCH-ID,
    dl-CCTrCH-ID                          CCTrCH-ID,
    ul-TransportFormatSet                 TransportFormatSet,
    dl-TransportFormatSet                 TransportFormatSet,
    frameHandlingPriority                 FrameHandlingPriority,
    qE-Selector                           QE-Selector,
    iE-Extensions                         ProtocolExtensionContainer { { DCH-AddSpecificItem-RL-ReconfRqstTDD-ExtIEs} }      OPTIONAL,
    ...
}

DCH-AddSpecificItem-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,
    qE-Selector                         QE-Selector,
    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,
    ...
}
```

ETSI

```
RL-InformationItem-RL-ReconfRqstTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TimeslotISCPInfoList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF TimeslotISCPInfoItem-RL-ReconfRqstTDD

TimeslotISCPInfoItem-RL-ReconfRqstTDD ::= SEQUENCE {
    timeSlot                  TimeSlot,
    dL-TimeslotISCP           DL-TimeslotISCP,
    iE-Extensions             ProtocolExtensionContainer { {TimeslotISCPInfoItem-RL-ReconfRqstTDD-ExtIEs} }     OPTIONAL,
    ...
    }

TimeslotISCPInfoItem-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-InformationResponseList-RL-ReconfRsp        DCH-InformationResponseList-RL-ReconfRsp        OPTIONAL,
    dSCH-InformationResponseList-RL-ReconfRsp   DSCH-InformationResponseList-RL-ReconfRsp   OPTIONAL,
    uSCH-InformationResponseList-RL-ReconfRsp   USCH-InformationResponseList-RL-ReconfRsp   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfRsp-ExtIEs} }     OPTIONAL,
    ...
}

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


DCH-InformationResponseList-RL-ReconfRsp::= ProtocolIE-Container {{ DCH-InformationResponseListIEs-RL-ReconfRsp }}


DCH-InformationResponseListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponseListIE-RL-ReconfRsp   CRITICALITY ignore TYPE DCH-InformationResponseListIE-RL-ReconfRsp PRESENCE mandatory },
    ...
}


DCH-InformationResponseListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-ReconfRsp


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


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


DSCH-InformationResponseList-RL-ReconfRsp::= ProtocolIE-Container {{ DSCH-InformationResponseListIEs-RL-ReconfRsp }}


DSCH-InformationResponseListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationResponseListIE-RL-ReconfRsp   CRITICALITY ignore   TYPE DSCH-InformationResponseListIE-RL-ReconfRsp  PRESENCE mandatory },
    ...
}
```

```
DSCH-InformationResponseListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (0..maxNrOfDSCHs)) OF DSCH-InformationResponseItem-RL-ReconfRsp


DSCH-InformationResponseItem-RL-ReconfRsp ::= SEQUENCE {
    dSCH-ID                             DSCH-ID,
    bindingID                           BindingID,
    transportLayerAddress               TransportLayerAddress,
    iE-Extensions                       ProtocolExtensionContainer { { DSCH-InformationResponseItem-RL-ReconfRsp-ExtIEs } }        OPTIONAL,
    ...
}


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


USCH-InformationResponseList-RL-ReconfRsp::= ProtocolIE-Container {{ USCH-InformationResponseListIEs-RL-ReconfRsp }}


USCH-InformationResponseListIEs-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationResponseListIE-RL-ReconfRsp   CRITICALITY ignore    TYPE USCH-InformationResponseListIE-RL-ReconfRsp  PRESENCE mandatory },
    ...
}


USCH-InformationResponseListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (0..maxNrOfUSCHs)) OF USCH-InformationResponseItem-RL-ReconfRsp


USCH-InformationResponseItem-RL-ReconfRsp ::= SEQUENCE {
    uSCH-ID                             USCH-ID,
    bindingID                           BindingID,
    transportLayerAddress               TransportLayerAddress,
    iE-Extensions                       ProtocolExtensionContainer { { USCH-InformationResponseItem-RL-ReconfRsp-ExtIEs } }        OPTIONAL,
    ...
}


USCH-InformationResponseItem-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 MaxAdjustmentStep        PRESENCE conditional} |
    -- This IE is present only ''Adjustment Type " equals to 'Common' or 'Individual'
    { ID id-AdjustmentPeriod                     CRITICALITY ignore  TYPE AdjustmentPeriod         PRESENCE conditional }|
    -- This IE is present only ''Adjustment Type " equals to 'Common' or 'Individual'
    { ID id-AdjustmentRatio        CRITICALITY ignore  TYPE ScaledAdjustmentRatio         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-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,
    ...
```

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```
}

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                                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 optional
     },
     ...
}

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

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

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 ::= {
    ...
}

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 ::= {
    ...
}

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,
    measurementAvailabilityIndicator    MeasurementAvailabilityIndicator-DedicatedMeasurementReport,
    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 ::= {
    ...
}

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,
    measurementAvailabilityIndicator   MeasurementAvailabilityIndicator-DedicatedMeasurementReport,
    iE-Extensions                      ProtocolExtensionContainer { { RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}

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

MeasurementAvailabilityIndicator-DedicatedMeasurementReport::= CHOICE {
    measurementAvailable       MeasurementAvailable-DedicatedMeasurementReport,
    measurementnotAvailable    MeasurementnotAvailable-DedicatedMeasurementReport,
    ...
}

MeasurementAvailable-DedicatedMeasurementReport::= ProtocolIE-Container {{ MeasurementAvailableIE-DedicatedMeasurementReport }}

MeasurementAvailableIE-DedicatedMeasurementReport NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementAvailableItem-DedicatedMeasurementReport CRITICALITY ignore TYPE MeasurementAvailableItem-DedicatedMeasurementReport   PRESENCE
mandatory},
    ...
}

MeasurementAvailableItem-DedicatedMeasurementReport ::= SEQUENCE {
    dedicatedmeasurementValue        DedicatedMeasurementValue,
    ie-Extensions                    ProtocolExtensionContainer { { MeasurementAvailableItem-DedicatedMeasurementReport-ExTIEs} }        OPTIONAL,
    ...
}

MeasurementAvailableItem-DedicatedMeasurementReport-ExTIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

MeasurementnotAvailable-DedicatedMeasurementReport::= ProtocolIE-Container {{ MeasurementnotAvailableIE-DedicatedMeasurementReport }}

MeasurementnotAvailableIE-DedicatedMeasurementReport NBAP-PROTOCOL-IES ::= {
    { ID id-MeasurementnotAvailableItem-DedicatedMeasurementReport  CRITICALITY ignore TYPE MeasurementnotAvailableItem-DedicatedMeasurementReport
    PRESENCE mandatory},
    ...
}

MeasurementnotAvailableItem-DedicatedMeasurementReport ::= NULL
```

```
-- ***************************************************************
--
-- 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                                CRITICALITY    ignore       TYPE    Cause                           PRESENCE mandatory  },
    ...
}

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

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

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```
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
    } ,
    ...
}

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 COMMAND FDD
--
-- ************************************************************

CompressedModeCommand ::= SEQUENCE {
    protocolIEs            ProtocolIE-Container    {{CompressedModeCommand-IEs}},
```

```
    protocolExtensions      ProtocolExtensionContainer {{CompressedModeCommand-Extensions}}                OPTIONAL,
    ...
}


CompressedModeCommand-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-NodeB-CommunicationContextID          CRITICALITY        ignore    TYPE    NodeB-CommunicationContextID          PRESENCE    mandatory
    } |
    { ID    id-Active-Pattern-Sequence-Information  CRITICALITY        ignore    TYPE    Active-Pattern-Sequence-Information   PRESENCE mandatory },
    ...
}


CompressedModeCommand-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
```

ETSI

```
--
-- ****************************************************************

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,
```

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```
    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               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                   PUSCH-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-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} }    OPTIONAL,
    ...
}

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    OPTIONAL,
    unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD Unsuccessful-PUSCHSetList-PSCH-ReconfFailureTDD    OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs} }    OPTIONAL,
    ...
}

SetSpecificCauseItem-PSCH-ReconfFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-PDSCHSetList-PSCH-ReconfFailureTDD ::= SEQUENCE (SIZE (0.. 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 (0.. 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 ::= {
```

```
   ...
}

END
```

9.3.4   NBAP Information Elements

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

NBAP-IEs
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN

IMPORTS
    maxNrOfTFCs,
    maxNrOfErrors,
    maxCTFC,
    maxNrOfTFs,
    maxTTI-count,
    maxRateMatching,
    maxCodeNrComp-1,
    maxNrOfCodeGroups,
    maxNrOfTFCIGroups,
    maxNrOfTFCI1Combs,
    maxNrOfTFCI2Combs,
    maxNrOfTFCI2Combs-1,
    maxNrOfSF,
    maxTGPS
FROM NBAP-Constants

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

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

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

Acknowledged-PCPCH-access-preambles ::= INTEGER (0..15)
```

```
-- According to mapping in [4]

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

AddorDeleteIndicator ::= ENUMERATED {
    add,
    delete,
    ...
}

Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN                               CFN,
    transmission-Gap-Pattern-Sequence-Status     Transmission-Gap-Pattern-Sequence-Status-List    OPTIONAL,
    iE-Extensions                                ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    ...
}

Active-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
    SEQUENCE {
        tGPSI          TGPSI,
        tGPRC          TGPRC,
        tGCFN          CFN,
        iE-Extensions        ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
        ...
}

Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

APPreambleSignature ::= INTEGER (0..15)

APSubChannelNumber ::= INTEGER (0..11)

AvailabilityStatus ::= ENUMERATED {
```

```
        empty,
        in-test,
        failed,
        power-off,
        off-line,
        off-duty,
        dependency,
        degraded,
        not-installed,
        log-full,
        ...
}


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

BCCH-ModificationTime ::= INTEGER  (0..511)
-- Time = BCCH-ModificationTime * 8
-- Range 0 to 4088, step 8
-- All SFN values in which MIB may be mapped 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,
    combining-resources-not-available,
    reconfiguration-not-allowed,
    requested-configuration-not-supported,
    synchronisation-failure,
    sIB-Origination-in-Node-B-not-Supported,
    unspecified,
    priority-transport-channel-established,
    bCCH-scheduling-error,
    measurement-temporarily-not-available,
    no-closed-loop-timing-adjustment-mode-configured,
    invalid-CM-settings,
    ...
```

```
}

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

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

CDSubChannelNumbers ::= BIT STRING (SIZE (12))

CellParameterID ::= INTEGER (0..127)

CFN ::= INTEGER (0..255)

Channel-Assignment-Indication ::= ENUMERATED {
    cA-Active,
    cA-Inactive
}

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

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

Closedlooptimingadjustmentmode  ::= ENUMERATED {
    adj-1-slot,
    adj-2-slot,
    ...
}

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

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

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,
    acknowledged-PCPCH-access-preambles    Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles        Detected-PCPCH-access-preambles,
    ...
}


CommonPhysicalChannelID ::= INTEGER (0..255)


CommonTransportChannelID ::= INTEGER (0..255)


CommunicationControlPortID ::= INTEGER (0..65535)


Compressed-Mode-Deactivation-Flag-RL-AdditionRqstFDD::= ENUMERATED {
    on,
    off
}
-- on=deactivate

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


ConstantValue ::= INTEGER (-10..10)
-- -10 dB - +10 dB
-- unit dB
-- step 1 dB


CPCH-Allowed-Total-Rate ::= ENUMERATED {
    v15,
    v30,
    v60,
    v120,
    v240,
    v480,
    v960,
    v1920,
    v2880,
    v3840,
    v4800,
    v5760,
    ...
}


CPCHScramblingCodeNumber ::= INTEGER (0..79)


CPCH-UL-DPCCH-SlotFormat ::= INTEGER (0..2)


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

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

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

DedicatedMeasurementValue ::= CHOICE {
```

```
    sIR-Value                       SIR-Value,
    sIR-ErrorValue                  SIR-Error-Value,
    transmittedCodePowerValue        Transmitted-Code-Power-Value,
    rSCP                            RSCP-Value,
    roundTripTime                   Round-Trip-Time-Value,
    rxTimingDeviationValue          Rx-Timing-Deviation-Value,
    ...
}

Detected-PCPCH-access-preambles ::= INTEGER (0..240)
-- According to mapping in [4]

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

DeltaSIR                ::= INTEGER (0..30)
-- Step 0.1 (Range 0..3).

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

DiversityMode ::= ENUMERATED {
    none,
    sTTD,
    closed-loop-mode1,
    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
```

```
DLPowerAveragingWindowSize ::= INTEGER (1..60)


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


DL-TimeslotISCP ::= INTEGER (0..91)


DL-TPC-Pattern01Count ::= INTEGER (0..30,...)


Downlink-Compressed-Mode-Method     ::= ENUMERATED {
    puncturing,
    sFdiv2,
    higher-layer-scheduling
}

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] --


FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-size1,
    step-size1-5,
    step-size2,
    ...
}


FirstRLS-Indicator ::= ENUMERATED {
    first-RLS,
    not-first-RLS,
```

```
    ...
}

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

FrameOffset ::= INTEGER (0..255)

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

GapLength                ::= INTEGER (1..14)

GapDuration              ::= INTEGER (1..144)

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

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

IB-SG-DATA ::= BIT STRING

IB-SG-POS ::= INTEGER (0..2046)
-- 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,
    ...
}

ITPPRM      ::= ENUMERATED {
    mode-0,
    mode-1
}

-- ========================================
--  J
-- ========================================


-- ========================================
--  K
-- ========================================


-- ========================================
--  L
-- ========================================

Local-Cell-ID ::= INTEGER (0..268435455)


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

MaximumDL-PowerCapability ::=  INTEGER(0..500)
-- Unit dBm, Range 0dBm .. 50dBm, Step +0.1dB

MaximumTransmissionPower ::=  INTEGER(0..500)
-- Unit dBm, Range 0dBm .. 50dBm, Step +0.1dB

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

Max-Number-of-PCPCHes ::= INTEGER (1..64)

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

MeasurementAvailabilityIndicator    ::= ENUMERATED {
```

```
        measurementAvailable,
        measurementnotAvailable
}

MeasurementFilterCoefficient ::= ENUMERATED {k0, k1, k2, k3, k4, k5, k6, k7, k8, k9, k11, k13, k15, k17, k19}
-- Measurement Filter Coefficient to be used for measurement

MeasurementID ::= INTEGER (0..1048575)

MidambleShift ::= INTEGER (0..15)

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

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

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

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

NEOT ::= INTEGER (0..8)

NFmax ::= INTEGER (1..64)

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

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

ETSI

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

NStartMessage ::= INTEGER (1..8)


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


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

PagingIndicatorLength ::= ENUMERATED {
    v2,
    v4,
    v8
}

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

PCP-Length ::= ENUMERATED{
    v0,
    v8
}

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)
```

ETSI

```
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
}

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

PowerRaiseLimit ::= INTEGER (0..10)

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

PreambleSignatures ::= BIT STRING (SIZE (16))
-- Bit 0=P0, Bit 1=P1, .. ,Bit 15=P15 [9] --

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,
    non-selected
}


-- =========================================
--  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..3)

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,
    ackowledged-ra-tries        Acknowledged-RA-Tries-Value,
    timesslot-iscp              TimeSlot-ISCP-Value-IncrDecrThres,
    sir                         SIR-Value-IncrDecrThres,
    sir-error                   SIR-Error-Value-IncrDecrThres,
    transmitted-code-power      Transmitted-Code-Power-Value-IncrDecrThres,
    rscp                        RSCP-Value-IncrDecrThres,
    round-trip-time             Round-Trip-Time-IncrDecrThres,
    acknowledged-PCPCH-access-preambles     Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles         Detected-PCPCH-access-preambles,
    ...
}

ReportCharacteristicsType-MeasurementThreshold ::= CHOICE {
    rssi                        RSSI-Value,
    transmitted-carrier-power   Transmitted-Carrier-Power-Value,
    ackowledged-ra-tries        Acknowledged-RA-Tries-Value,
    timesslot-iscp              TimeSlot-ISCP-Value,
    sir                         SIR-Value,
```

```
    sir-error                        SIR-Error-Value,
    transmitted-code-power           Transmitted-Code-Power-Value,
    rscp                             RSCP-Value,
    round-trip-time                  Round-Trip-Time-Value,
    rx-timing-deviation              Rx-Timing-Deviation-Value,
    acknowledged-PCPCH-access-preambles    Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles        Detected-PCPCH-access-preambles,
    ...
}

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)


RPM     ::= ENUMERATED {
    mode-0,
    mode-1
}
```

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


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

RSCP-Value ::= INTEGER (0..81)
-- According to mapping in [5]

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

RSSI-Value ::= INTEGER(0..621)
-- According to mapping in [4]/[5]

RSSI-Value-IncrDecrThres ::= INTEGER (0..620)

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


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

AdjustmentPeriod            ::= INTEGER(1..300)
-- Unit Frame

ScaledAdjustmentRatio           ::= INTEGER(0..100)
-- AdjustmentRatio  = ScaledAdjustmentRatio / 100

MaxAdjustmentStep          ::= INTEGER(1..10)
-- Unit Slot

ScramblingCodeNumber ::= INTEGER (0..15)

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

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

SFN ::= INTEGER (0..4095)

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

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]/[5]


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


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


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


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


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


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


SyncCase ::= INTEGER (1..2)


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


T-Cell ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    v4,
    v5,
    v6,
    v7,
```

```
    v8,
    v9,
    ...
}

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

TDD-ChannelisationCode ::= ENUMERATED {
    chCode1div1,
    chCode2div1,
    chCode2div2,
    chCode4div1,
    chCode4div2,
    chCode4div3,
    chCode4div4,
    chCode8div1,
    chCode8div2,
    chCode8div3,
    chCode8div4,
    chCode8div5,
    chCode8div6,
    chCode8div7,
    chCode8div8,
    chCode16div1,
    chCode16div2,
    chCode16div3,
    chCode16div4,
    chCode16div5,
    chCode16div6,
    chCode16div7,
    chCode16div8,
    chCode16div9,
    chCode16div10,
    chCode16div11,
    chCode16div12,
    chCode16div13,
    chCode16div14,
    chCode16div15,
    chCode16div16,
    ...
}

TDD-PhysicalChannelOffset ::= INTEGER (0..63)

TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}
```

ETSI

```
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|15..269)
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence


TGPRC              ::= INTEGER (0..63)
-- 0 = infinity


TGPSI              ::= INTEGER (1.. maxTGPS)


TGSN               ::= INTEGER (0..14)

TimeSlot ::= INTEGER (0..14)

TimeSlotDirection ::= ENUMERATED {
    ul,
    dl,
    ...
}

TimeSlot-ISCP-Value ::= INTEGER (0..81)
-- According to mapping in [5]

TimeSlot-ISCP-Value-IncrDecrThres ::= INTEGER (0..80)

TimeSlotStatus ::= ENUMERATED {
    active,
    not-active,
    ...
}

ToAWE ::= INTEGER (0..2559)
-- Unit ms

ToAWS ::= INTEGER (0..1279)
-- Unit ms

Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF
    SEQUENCE {
        tGPSI          TGPSI,
        tGSN           TGSN,
        tGL1           GapLength,
        tGL2           GapLength    OPTIONAL,
        tGD            TGD,
        tGPL1          GapDuration,
        tGPL2          GapDuration OPTIONAL,
```

```
        rPM             RPM,
        iTPPRM          ITPPRM,
        uL-DL-mode      UL-DL-mode,
        downlink-Compressed-Mode-Method    Downlink-Compressed-Mode-Method    OPTIONAL,
            -- This IE is only present if the value of the UL/DL mode IE is "DL only" or "UL/DL"
        uplink-Compressed-Mode-Method      Uplink-Compressed-Mode-Method      OPTIONAL,
            -- This IE is only present if the value of the UL/DL mode IE is "UL only" or "UL/DL"
        dL-FrameType    DL-FrameType,
        delta-SIR1      DeltaSIR,
        delta-SIR-after1   DeltaSIR,
        delta-SIR2      DeltaSIR    OPTIONAL,
        delta-SIR-after2   DeltaSIR    OPTIONAL,
        iE-Extensions          ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
        ...
    }


Transmission-Gap-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


TransmissionGapPatternSequenceCodeInformation   ::= ENUMERATED{
    code-change,
    nocode-change
}

Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- According to mapping in [4]/[5]

Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in [4]/[5]

Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)

TransmissionDiversityApplied ::= BOOLEAN
-- true: applied, false: not applied

TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive,
    ...
}

TFCS ::= SEQUENCE {
    tFCSvalues              CHOICE {
```

```
        no-Split-in-TFCI                TFCS-TFCSList,
        split-in-TFCI                   SEQUENCE {
            transportFormatCombination-DCH      TFCS-DCHList,
            signallingMethod                    CHOICE {
                tFCI-Range                          TFCS-MapingOnDSCHList,
                explicit                            TFCS-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 (0..maxCTFC)

TFCS-DCHList ::= SEQUENCE (SIZE (1..maxNrOfTFCI1Combs)) OF
    SEQUENCE {
        cTFC                TFCS-CTFC,
        iE-Extensions       ProtocolExtensionContainer { { TFCS-DCHList-ExtIEs} }      OPTIONAL,
    ...
}

TFCS-DCHList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-MapingOnDSCHList ::= SEQUENCE (SIZE (1..maxNrOfTFCIGroups)) OF
    SEQUENCE {
        maxTFCI-field2-Value        TFCS-MaxTFCI-field2-Value,
        cTFC-DSCH               TFCS-CTFC,
        iE-Extensions               ProtocolExtensionContainer { { TFCS-MapingOnDSCHList-ExtIEs} }    OPTIONAL,
    ...
}

TFCS-MapingOnDSCHList-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

TFCS-MaxTFCI-field2-Value ::= INTEGER (1..maxNrOfTFCI2Combs-1)

TFCS-DSCHList ::= SEQUENCE (SIZE (1..maxNrOfTFCI2Combs)) OF
    SEQUENCE {
        cTFC-DSCH               TFCS-CTFC,
        iE-Extensions           ProtocolExtensionContainer { { TFCS-DSCHList-ExtIEs} }    OPTIONAL,
    ...
}

TFCS-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 ::= {
    ...
}
```

ETSI

```
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
    notApplicable            NULL,
    ...
}

TransportFormatSet-ModeSSP ::= CHOICE {
    tdd              TransportFormatSet-SecondInterleavingMode,
    notApplicable            NULL,
    ...
```

```
}

TransportFormatSet-NrOfTransportBlocks ::= INTEGER (0..4095)

TransportFormatSet-RateMatchingAttribute ::= INTEGER (1..maxRateMatching)

TransportFormatSet-SecondInterleavingMode ::= ENUMERATED {
    frame-rlated,
    timeSlot-related,
    ...
}

TransportFormatSet-TransmissionTimeInterval ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    ...
}

TransportFormatSet-TransportBlockSize ::= INTEGER (0..5000)

TransportLayerAddress ::= BIT STRING (SIZE (1..160, ...))

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

-- =======================================
--  U
-- =======================================

UARFCN ::= INTEGER (0..16383, ...)
-- corresponds to 1885.2MHz .. 2024.8MHz

UL-CapacityCredit ::= INTEGER (0..65535)

UL-DL-mode ::= ENUMERATED {
    ul-only,
    dl-only,
    both-ul-and-dl
}

Uplink-Compressed-Mode-Method   ::= ENUMERATED {
    sFdiv2,
    higher-layer-scheduling
```

```
}

UL-DPCCH-SlotFormat ::= INTEGER (0..5)

UL-SIR ::= INTEGER (-82..173)
-- According to mapping in [16]

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, unsuccessfull-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-compressedModeCommand                               INTEGER ::= 14
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
id-errorIndicationForCommon                            INTEGER ::= 35
id-privateMessageForCommon                             INTEGER ::= 36
```

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

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


-- ***************************************************************
--
-- Lists
--
-- ***************************************************************

maxNrOfCodes                    INTEGER ::= 10
maxNrOfDLTSs                    INTEGER ::= 15
maxNrOfDLCodes                  INTEGER ::= 8
maxNrOfErrors                   INTEGER ::= 256
maxNrOfTFs                      INTEGER ::= 32
maxNrOfTFCs                     INTEGER ::= 1024
maxNrOfRLs                      INTEGER ::= 16
maxNrOfRLSets                   INTEGER ::= maxNrOfRLs
maxNrOfDPCHs                    INTEGER ::= 240
maxNrOfSCCPCHs                  INTEGER ::= 8
maxNrOfCPCHs                    INTEGER ::= 10 -- temporary value
maxNrOfPCPCHs                   INTEGER ::= 64
maxNrOfDCHs                     INTEGER ::= 128
maxNrOfDSCHs                    INTEGER ::= 32
maxNrOfFACHs                    INTEGER ::= 8
maxNrOfCCTrCHs                  INTEGER ::= 16
maxNrOfPDSCHs                   INTEGER ::= 256
maxNrOfPUSCHs                   INTEGER ::= 256
maxNrOfPDSCHSets                INTEGER ::= 256
maxNrOfPUSCHSets                INTEGER ::= 256
maxNrOfULTSs                    INTEGER ::= 15
maxNrOfUSCHs                    INTEGER ::= 32
maxAPSigNum                     INTEGER ::= 16
maxNrOfSlotFormatsPRACH         INTEGER ::= 8
maxCellinNodeB                  INTEGER ::= 256
maxCCPinNodeB                   INTEGER ::= 256
maxCPCHCell                     INTEGER ::= 64
maxCTFC                         INTEGER ::= 16777215
maxLocalCellinNodeB             INTEGER ::= maxCellinNodeB
maxNoofLen                      INTEGER ::= 7
maxRACHCell                     INTEGER ::= maxPRACHCell
maxPRACHCell                    INTEGER ::= 16
maxPCPCHCell                    INTEGER ::= 64
maxSCCPCHCell                   INTEGER ::= 32
```

```
maxSCPICHCell                 INTEGER ::= 32
maxTTI-count                  INTEGER ::= 4
maxIBSEG                      INTEGER ::= 16
maxIB                         INTEGER ::= 32
maxFACHCell                   INTEGER ::= 256 -- maxNrOfFACHs * maxSCCPCHCell
maxRateMatching               INTEGER ::= 256
maxCodeNrComp-1               INTEGER ::= 256
maxNrOfCodeGroups             INTEGER ::= 256
maxNrOfTFCIGroups             INTEGER ::= 256
maxNrOfTFCI1Combs             INTEGER ::= 512
maxNrOfTFCI2Combs             INTEGER ::= 1024
maxNrOfTFCI2Combs-1           INTEGER ::= 1023
maxNrOfSF                     INTEGER ::= 8
maxTGPS                       INTEGER ::= 6


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

id-AICH-InformationItem-AuditRsp                            INTEGER ::= 0
id-AICH-InformationItem-ResourceStatusInd                   INTEGER ::= 1
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-CommunicationControlPortID                                 INTEGER ::= 40
id-ConfigurationGenerationID                                  INTEGER ::= 43
id-CRNC-CommunicationContextID                                INTEGER ::= 44
id-CriticalityDiagnostics                                     INTEGER ::= 45
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-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-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-SetupRqstTDD                  INTEGER ::= 72
id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD               INTEGER ::= 73
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-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
```

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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-ModifyList-RL-ReconfPrepFDD                    INTEGER ::= 112
id-DSCH-ModifyList-RL-ReconfRqstFDD                    INTEGER ::= 113
id-FACH-InformationItem-AuditRsp                       INTEGER ::= 116
id-FACH-InformationItem-ResourceStatusInd             INTEGER ::= 117
id-FACHItem-CTCH-SetupRsp                              INTEGER ::= 118
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-AdjustmentPeriod                                   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-NonCombiningOrFirstRLItem-RL-SetupFailureFDD       INTEGER ::= 141
id-NonCombiningOrFirstRLItem-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
```

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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-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-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
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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-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
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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-SetupRqstTDD                INTEGER ::= 284
id-UL-CCTrCH-InformationList-RL-AdditionRqstTDD             INTEGER ::= 285
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-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-Active-Pattern-Sequence-Information                      INTEGER ::= 315
id-AICH-ParametersListIE-CTCH-ReconfRqstFDD                INTEGER ::= 316
id-AdjustmentRatio                                         INTEGER ::= 317
id-AllRLItem-DM-Rqst                                       INTEGER ::= 318
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id-AllRLItem-Set-DM-Rqst                                          INTEGER ::= 319
id-AP-AICH-InformationItem-AuditRsp                               INTEGER ::= 320
id-AP-AICH-InformationItem-ResourceStatusInd                     INTEGER ::= 321
id-AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD                   INTEGER ::= 322
id-FACH-ParametersListIE-CTCH-ReconfRqstFDD                      INTEGER ::= 323
id-CauseLevel-PSCH-ReconfFailureTDD                              INTEGER ::= 324
id-CauseLevel-RL-AdditionFailureFDD                              INTEGER ::= 325
id-CauseLevel-RL-AdditionFailureTDD                              INTEGER ::= 326
id-CauseLevel-RL-ReconfFailure                                   INTEGER ::= 327
id-CauseLevel-RL-SetupFailureFDD                                 INTEGER ::= 328
id-CauseLevel-RL-SetupFailureTDD                                 INTEGER ::= 329
id-CDCA-ICH-InformationItem-AuditRsp                             INTEGER ::= 330
id-CDCA-ICH-InformationItem-ResourceStatusInd                    INTEGER ::= 331
id-CDCA-ICH-ParametersListIE-CTCH-ReconfRqstFDD                 INTEGER ::= 332
id-Closed-Loop-Timing-Adjustment-Mode                            INTEGER ::= 333
id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD                 INTEGER ::= 334
id-Compressed-Mode-Deactivation-Flag-RL-AdditionRqstFDD         INTEGER ::= 335
id-CPCH-InformationItem-AuditRsp                                 INTEGER ::= 336
id-CPCH-InformationItem-ResourceStatusInd                        INTEGER ::= 337
id-CPCHItem-CM-Rprt                                              INTEGER ::= 338
id-CPCHItem-CM-Rqst                                              INTEGER ::= 339
id-CPCHItem-CM-Rsp                                               INTEGER ::= 340
id-CPCHListItem-CTCH-ReconfRqstFDD                              INTEGER ::= 341
id-CPCH-Parameters-CTCH-SetupRsp                                INTEGER ::= 342
id-CPCH-ParametersListIE-CTCH-ReconfRqstFDD                     INTEGER ::= 343
id-DCH-InformationResponseListIE-RL-ReconfReady                 INTEGER ::= 344
id-DCH-InformationResponseListIE-RL-ReconfRsp                   INTEGER ::= 345
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD               INTEGER ::= 346
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD            INTEGER ::= 347
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD           INTEGER ::= 348
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD           INTEGER ::= 349
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD           INTEGER ::= 350
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD           INTEGER ::= 351
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD           INTEGER ::= 352
id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD              INTEGER ::= 353
id-DL-DPCH-InformationDeleteListIE-RL-ReconfPrepTDD           INTEGER ::= 354
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD       INTEGER ::= 355
id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD    INTEGER ::= 356
id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD    INTEGER ::= 357
id-DL-TPC-Pattern01Count                                         INTEGER ::= 358
id-DPCHConstant                                                  INTEGER ::= 359
id-DSCH-InformationResponseListIE-RL-ReconfReady                INTEGER ::= 360
id-DSCH-InformationResponseListIE-RL-ReconfRsp                  INTEGER ::= 361
id-FACH-ParametersList-CTCH-SetupRsp                            INTEGER ::= 362
id-GeneralCauseItem-PSCH-ReconfFailureTDD                       INTEGER ::= 363
id-GeneralCauseItem-RL-AdditionFailureFDD                       INTEGER ::= 364
id-GeneralCauseItem-RL-AdditionFailureTDD                       INTEGER ::= 365
id-GeneralCauseItem-RL-ReconfFailure                            INTEGER ::= 366
id-GeneralCauseItem-RL-SetupFailureFDD                          INTEGER ::= 367
id-GeneralCauseItem-RL-SetupFailureTDD                          INTEGER ::= 368
id-Limited-power-increase-information-Cell-SetupRqstFDD         INTEGER ::= 369
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id-MeasurementAvailableItem-CommonMeasurementReport          INTEGER ::= 370

id-MeasurementnotAvailableItem-CommonMeasurementReport       INTEGER ::= 371

id-MeasurementAvailableItem-DedicatedMeasurementReport       INTEGER ::= 372
id-MeasurementnotAvailableItem-DedicatedMeasurementReport    INTEGER ::= 373
id-PCH-Parameters-CTCH-SetupRsp                              INTEGER ::= 374
id-PCH-ParametersItem-CTCH-ReconfRqstFDD                     INTEGER ::= 375
id-PCPCH-InformationItem-AuditRsp                            INTEGER ::= 376
id-PCPCH-InformationItem-ResourceStatusInd                   INTEGER ::= 377
id-PCPCHItem-CTCH-SetupRqstFDD                               INTEGER ::= 378
id-PCPCH-ParametersList-CTCH-ReconfRqstFDD                   INTEGER ::= 379
id-PICH-ParametersItem-CTCH-ReconfRqstFDD                    INTEGER ::= 380
id-PRACHConstant                                            INTEGER ::= 381
id-PRACHListIE-CTCH-ReconfRqstFDD                            INTEGER ::= 382
id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD                 INTEGER ::= 383
id-PUSCHConstant                                            INTEGER ::= 384
id-RACH-Parameters-CTCH-SetupRsp                            INTEGER ::= 385
id-RLSpecificCauseItem-RL-AdditionFailureFDD                 INTEGER ::= 386
id-RLSpecificCauseItem-RL-AdditionFailureTDD                 INTEGER ::= 387
id-RLSpecificCauseItem-RL-ReconfFailure                      INTEGER ::= 388
id-RLSpecificCauseItem-RL-SetupFailureFDD                    INTEGER ::= 389
id-RLSpecificCauseItem-RL-SetupFailureTDD                    INTEGER ::= 390
id-Secondary-CCPCHListIE-CTCH-ReconfRqstFDD                  INTEGER ::= 391
id-SetSpecificCauseItem-PSCH-ReconfFailureTDD                INTEGER ::= 392
id-Synchronisation-Configuration-Cell-ReconfRqst            INTEGER ::= 393
id-Synchronisation-Configuration-Cell-SetupRqst             INTEGER ::= 394
id-Transmission-Gap-Pattern-Sequence-Information            INTEGER ::= 395
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD             INTEGER ::= 396
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD          INTEGER ::= 397
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD          INTEGER ::= 398
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD          INTEGER ::= 399
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD          INTEGER ::= 400
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD          INTEGER ::= 401
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD          INTEGER ::= 402
id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD             INTEGER ::= 403
id-UL-DPCH-InformationDeleteListIE-RL-ReconfPrepTDD          INTEGER ::= 404
id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD      INTEGER ::= 405
id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD   INTEGER ::= 406
id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD   INTEGER ::= 407
id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD           INTEGER ::= 408
id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD           INTEGER ::= 409
id-USCH-InformationResponseListIE-RL-ReconfReady             INTEGER ::= 410
id-USCH-InformationResponseListIE-RL-ReconfRsp              INTEGER ::= 411


END
```

9.4   Message Transfer Syntax

NBAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [11].

[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.]
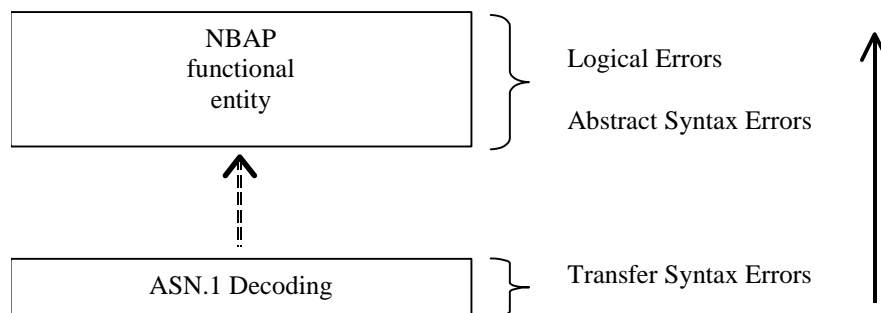
9.5   Timers

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, than 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

10.3.1 General

An Abstract Syntax Error occurs when the receiving functional NBAP entity:

1. receives IEs or IE groups that cannot be understood (unknown id);

2. receives IEs for which the logical range is violated (e.g.: ASN.1 definition: 0 to 15, the logical range is 0 to 10 (values 11 to 15 are undefined), and 12 will be received; this case will be handled as an abstract syntax error using criticality information sent by the originator of the message);

3. does not receive IEs or IE groups but according to the specified presence of the concerning object, the IEs or IE groups should have been present in the received message.

Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error act according to the Criticality Information and Presence Information for the IE/IE group due to which Abstract Syntax Error occurred in accordance with subclauses 10.3.4 and 10.3.5.

10.3.2 Criticality Information

In the NBAP messages there is criticality information set for individual IEs and/or IE groups. This criticality information instructs the receiver how to act when receiving an IE or an IE group that is not comprehended, i.e. the entire item (IE or IE group) which is not (fully or partially) comprehended shall be treated in accordance with its own criticality information as specified in chapter 10.3.4.

In addition, the criticality information is used in case of the missing IE/IE group abstract syntax error (see subclause 10.3.5).

The receiving node shall take different actions depending on the value of the Criticality Information. The three possible values of the Criticality Information for an IE/IE group are:

- Reject IE

- Ignore IE and Notify Sender

- Ignore IE

10.3.3 Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, NBAP specifies separately if the presence of these IEs/IE groups is optional or mandatory with respect to RNS application by means of the presence field of the concerning object of class NBAP-PROTOCOL-IES, NBAP-PROTOCOL-IES-PAIR, NBAP-PROTOCOL-EXTENSION or NBAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

1. Optional;

2. Conditional;

3. Mandatory.

If an IE/IE group is not included in a received message and the presence of the IE/IE group is mandatory or the presence is conditional and the condition is true according to the version of the specification used by the receiver, an abstract syntax error occurs due to a missing IE/IE group.

10.3.4   Not comprehended IE/IE group

10.3.4.1   Procedure Code

The receiving node shall treat the different types of received criticality information of the *Procedure Code* according to the following:

Reject IE:

-   If a message is received with a *Procedure Code* marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall reject the procedure using the Error Indication procedure.

Ignore IE and Notify Sender:

-   If a message is received with a *Procedure Code* marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the procedure and initiate the Error Indication procedure.

Ignore IE:

-   If a message is received with a *Procedure Code* marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the procedure.

10.3.4.2   IEs other than the Procedure Code

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure Code* according to the following:

Reject IE:

-   If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure.

-   If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall initiate the Error Indication procedure.

-   If a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE* that the receiving node does not comprehend, the receiving node shall initiate local error handling.

Ignore IE and Notify Sender:

-   If a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received(except for the reporting) using the understood IEs/IE groups and report n 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 the understood IEs/IE groups.

10.3.5   Missing IE or IE group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

Reject IE:

-    if a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure.

-    if a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall initiate the Error Indication procedure.

-    if a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*, the receiving node shall initiate local error handling.

Ignore IE and Notify Sender:

-    if a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing.

-    if a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall initiate the Error Indication procedure.

Ignore IE:

-    if a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall continue with the procedure based on the other IEs/IE groups present in the message.

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.

<u>**Class 1:**</u>

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.

<u>**Class 2:**</u>

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
RAN_08	3.1.0	-	RP-000250	3.2.0	Approved at TSG RAN #8
RAN_08	3.1.0	-	RP-000251	3.2.0	Approved at TSG RAN #8
RAN_08	3.1.0	-	RP-000252	3.2.0	Approved at TSG RAN #8
RAN_08	3.1.0	-	RP-000253	3.2.0	Approved at TSG RAN #8

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History

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