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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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    x   the first digit:

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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]   3GPP TS 25.401: "UTRAN Overall Description".

[2]   3GPP 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]   3GPP TS 25.215: "Physical layer – Measurements (FDD)".

[5]   3GPP TS 25.225: "Physical layer – Measurements (TDD)".

[6]   3GPP TS 25.430: "UTRAN Iub General Aspect and Principle".

[7]   3GPP TS 25.211: "Physical channels and mapping of transport channels onto physical channels (FDD)".

[8]   3GPP TS 25.212: "Multiplexing and channel coding (FDD)".

[9]   3GPP TS 25.213: "Spreading and modulation (FDD)".

[10]   3GPP TS 25.214: "Physical layer procedures (FDD)".

[11]   X.691, (12/97) "Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER)".

[12]   X.680, (12/97) "Information Technology - Abstract Syntax Notation One (ASN.1):Specification of basic notation".

[13]   X.681, (12/97) "Information Technology - Abstract Syntax Notation One (ASN.1): Information object specification"

[14]   3GPP TS 25.104: "UTRA (BS) FDD; Radio Transmission and Reception".

[15]   3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception".

[16]   3GPP TS25.427: "UTRAN Iur/Iub Interface User Plane Protocol for DCH Data Stream"

[17]   3GPP TS25.402: "Synchronisation in UTRAN Stage2"

[18]   3GPP TS25.331: "RRC Protocol Specification"

[19]   3GPP TS25.221: "Physical channels and mapping of transport channels onto physical channels[TDD]"

[20]   3GPP TS25.223: "Spreading and modulation (TDD)"

[21]   3GPP TS25.224: "Physical Layer Procedures (TDD)"

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

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

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

[25]   3GPP 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 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. The Reset procedure is an exception from this principle.

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

(void)

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 and enforce 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.

- Physical Shared Channel Management [TDD]. This function allows the CRNC to manage physical resources in the Node B belonging to Shared Channels (USCH/DSCH).

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 c) Reset
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) Radio Link Setup b) Radio Link Addition c) Compressed Mode Command d) Unsynchronised Radio Link Reconfiguration e) Synchronised Radio Link Reconfiguration Preparation f) Synchronised Radio Link Reconfiguration Commit g) Synchronised Radio Link Reconfiguration Cancellation
Measurements on Dedicated Resources	a) Dedicated Measurement Initiation b) Dedicated Measurement Reporting c) Dedicated Measurement Termination d) Dedicated Measurement Failure
DL Power Drifting Correction [FDD]	Downlink Power Control
Reporting of General Error Situations	Error Indication
Physical Shared Channel Management [TDD]	Physical Shared Channel Reconfiguration

8 NBAP Procedures

8.1 Elementary Procedures

NBAP procedures are divided into common procedures and dedicated procedures.

- NBAP common procedures are procedures that request initiation of a UE context for a specific UE in Node B or are not related to a specific UE. NBAP common procedures also incorporate logical O&M [1] procedures.

- NBAP dedicated procedures are procedures that are related to a specific UE context in Node B. This UE context is identified by a UE context identity.

The two types of procedures may be carried on separate signalling links.

In the following tables, all EPs are divided into Class 1 and Class 2 EPs:

Table 1: Class 1

Elementary Procedure	Message	Successful Outcome	Unsuccessful Outcome	
		Response message	Response message	Timer
Cell Setup	CELL SETUP REQUEST	CELL SETUP RESPONSE	CELL SETUP FAILURE	
Cell Reconfiguration	CELL RECONFIGURATION REQUEST	CELL RECONFIGURATION RESPONSE	CELL RECONFIGURATION FAILURE	
Cell Deletion	CELL DELETION REQUEST	CELL DELETION RESPONSE		
Common Transport Channel Setup	COMMON TRANSPORT CHANNEL SETUP REQUEST	COMMON TRANSPORT CHANNEL SETUP RESPONSE	COMMON TRANSPORT CHANNEL SETUP FAILURE	
Common Transport Channel Reconfiguration	COMMON TRANSPORT CHANNEL RECONFIGURATION REQUEST	COMMON TRANSPORT CHANNEL RECONFIGURATION RESPONSE	COMMON TRANSPORT CHANNEL RECONFIGURATION FAILURE	
Common Transport Channel Deletion	COMMON TRANSPORT CHANNEL DELETION REQUEST	COMMON TRANSPORT CHANNEL DELETION RESPONSE		
Physical Shared Channel Reconfigure [TDD]	PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST	PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE	PHYSICAL SHARED CHANNEL RECONFIGURATION FAILURE	
Audit	AUDIT REQUEST	AUDIT RESPONSE		
Block Resource	BLOCK RESOURCE REQUEST	BLOCK RESOURCE RESPONSE	BLOCK RESOURCE FAILURE	
Radio Link Setup	RADIO LINK SETUP REQUEST	RADIO LINK SETUP RESPONSE	RADIO LINK SETUP FAILURE	
System Information Update	SYSTEM INFORMATION UPDATE REQUEST	SYSTEM INFORMATION UPDATE RESPONSE	SYSTEM INFORMATION UPDATE FAILURE	
Common Measurement Initiation	COMMON MEASUREMENT INITIATION REQUEST	COMMON MEASUREMENT INITIATION RESPONSE	COMMON MEASUREMENT INITIATION FAILURE	
Radio Link Addition	RADIO LINK ADDITION REQUEST	RADIO LINK ADDITION RESPONSE	RADIO LINK ADDITION FAILURE	
Radio Link Deletion	RADIO LINK DELETION REQUEST	RADIO LINK DELETION RESPONSE		
Synchronised Radio Link Reconfiguration Preparation	RADIO LINK RECONFIGURATION PREPARE	RADIO LINK RECONFIGURATION READY	RADIO LINK RECONFIGURATION FAILURE	
Unsynchronised Radio Link Reconfiguration	RADIO LINK RECONFIGURATION REQUEST	RADIO LINK RECONFIGURATION RESPONSE	RADIO LINK RECONFIGURATION FAILURE	
Dedicated Measurement Initiation	DEDICATED MEASUREMENT INITIATION REQUEST	DEDICATED MEASUREMENT INITIATION RESPONSE	DEDICATED MEASUREMENT INITIATION FAILURE	
Reset	RESET REQUEST	RESET RESPONSE		

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

CRNC   Node B

COMMON TRANSPORT CHANNEL SETUP
REQUEST

COMMON TRANSPORT CHANNEL SETUP
RESPONSE
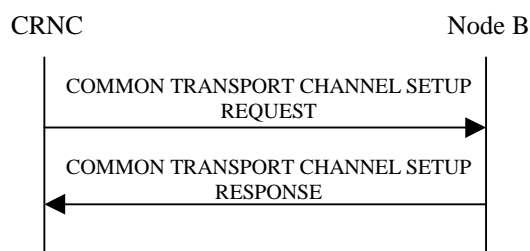
Figure 1: Common Transport Channel Setup procedure, Successful Operation

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-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.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *CD Signatures* IE, the Node B may use only the given CD signatures on CD/CA-ICH.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes Channel Request Parameters IE group, the Node B shall use the parameters to distinguish the PCPCHs.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *AP Sub Channel Number* IE in Channel Request Parameters IE group, the Node B shall use AP sub channel number to distinguish the PCPCHs.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message includes *AP Sub Channel Number* IE in SF Request Parameters IE group, the Node B shall use AP sub channel number to distinguish the requested Spreading Factors.

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

CRNC   Node B

```
                    COMMON TRANSPORT CHANNEL SETUP
                              REQUEST
            ──────────────────────────────────────────────▶

                    COMMON TRANSPORT CHANNEL SETUP
                              FAILURE
            ◀──────────────────────────────────────────────
```
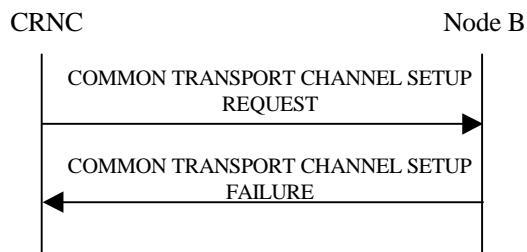
Figure 2: Common Transport Channel Setup procedure, Unsuccessful Operation

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

- Requested Tx Diversity Mode not supported

- UL SF not supported

- DL SF not supported

- Common Transport Channel Type not supported

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
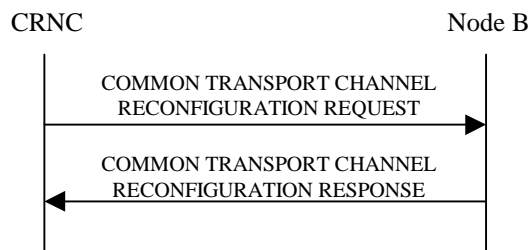
Figure 3: Common Transport Channel Reconfiguration, Successful Operation

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

CRNC   Node B

COMMON TRANSPORT CHANNEL
RECONFIGURATION REQUEST

COMMON TRANSPORT CHANNEL
RECONFIGURATION FAILURE
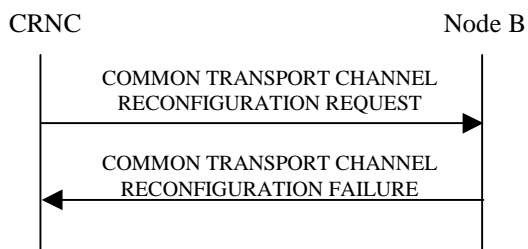
Figure 4: Common Transport Channel Reconfiguration procedure, Unsuccessful Operation

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

CRNC   Node B

COMMON TRANSPORT CHANNEL
DELETION REQUEST

COMMON TRANSPORT CHANNEL
DELETION RESPONSE
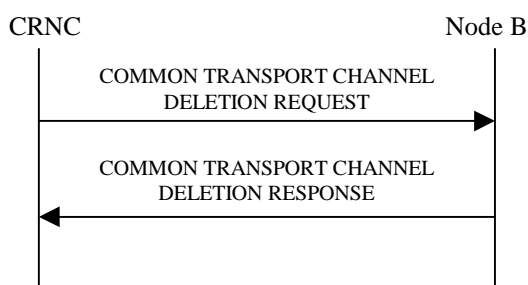
Figure 5: Common Transport Channel Deletion procedure, Ssuccessful Operation

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
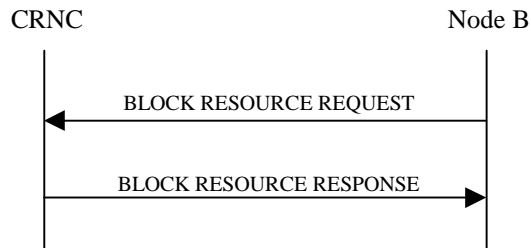
Figure 6: Block Resource procedure, Successful Operation

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
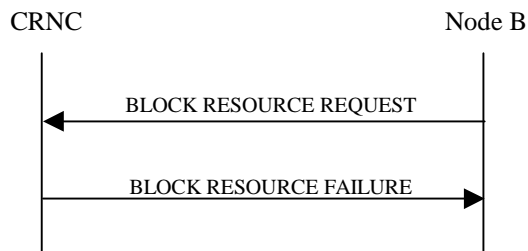
Figure 7: Block Resource procedure, Unsuccessful Operation

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

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8.2.5   Unblock Resource

8.2.5.1   General

The Node B initiates this procedure to indicate to the CRNC that logical resources are now unblocked.

The logical resource that can be unblocked is cell.

8.2.5.2   Successful Operation

CRNC   Node B

UNBLOCK RESOURCE INDICATION

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

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8.2.6 Audit Required

8.2.6.1 General

The Node B initiates this procedure to request the CRNC to perform an audit of the logical resources at the Node B. This procedure is used to indicate a possible misalignment of state or configuration information

8.2.6.2 Successful Operation
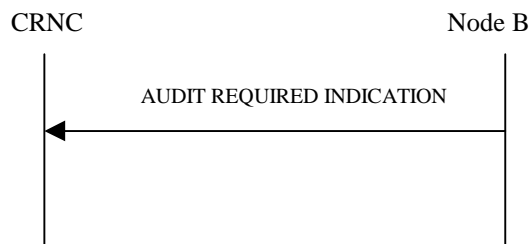
Figure 9: Audit Required procedure, Successful Operation

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

If the Node B cannot ensure alignment of the state or configuration information, it should initiate the Audit required indication procedure.

Upon receipt of the AUDIT REQUIRED INDICATION message, the CRNC should initiate the Audit procedure.

8.2.6.3 Abnormal Conditions

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8.2.7 Audit

8.2.7.1 General

This procedure is executed by the CRNC to perform an audit of the configuration and status of the logical resources in the Node B. The audit may cause the CRNC to re-sync the Node B to the status of logical resources known by the CRNC, that the Node B can support.

8.2.7.2   Successful Operation

CRNC   Node B

AUDIT REQUEST

AUDIT RESPONSE
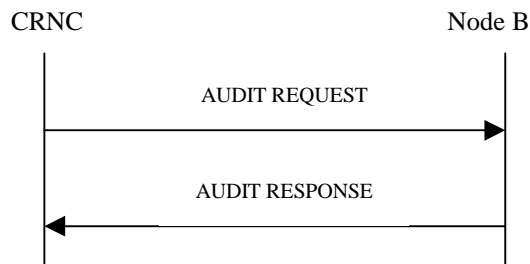
Figure 10: Audit procedure, Successful Operation

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 and the *Minimum DL Power Capability* IE when any of those values are 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

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8.2.7.4   Abnormal Conditions

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8.2.8   Common Measurement Initiation

8.2.8.1   General

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

8.2.8.2 Successful Operation

CRNC   Node B

COMMON MEASUREMENT INITIATION REQUEST

COMMON MEASUREMENT INITIATION RESPONSE
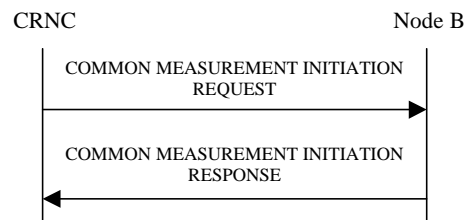
Figure 11: Common Measurement Initiation procedure: Successful Operation

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.

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
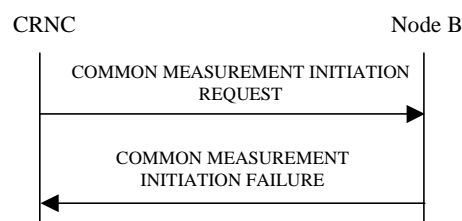
Figure 12: Common Measurement Initiation procedure: Unsuccessful Operation

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.

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

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8.2.9 Common Measurement Reporting

8.2.9.1 General

This procedure is used by a Node B to report the result of measurements requested by the CRNC with the Common Measurement Initiation procedure.

8.2.9.2 Successful Operation

CRNC Node B

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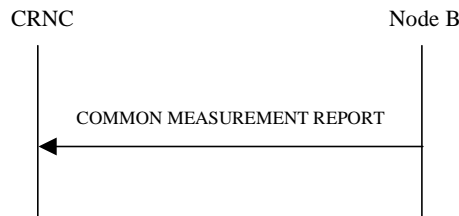
Figure 13: Common Measurement Reporting procedure: Successful Operation

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

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8.2.10 Common Measurement Termination

8.2.10.1 General

This procedure is used by the CRNC to terminate a measurement previously requested by the Common Measurement Initiation procedure.

8.2.10.2 Successful Operation

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

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8.2.11 Common Measurement Failure

8.2.11.1 General

This procedure is used by the Node B to notify the CRNC that a measurement previously requested by the Measurement Initiation procedure can no longer be reported.

8.2.11.2 Successful Operation

Figure 15: Common Measurement Failure procedure: Successful Operation

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from the Node B to the CRNC using the Node B control port, to inform the CRNC that a previously requested measurement no longer can be reported.

8.2.11.3 Abnormal Conditions

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8.2.12 Cell Setup

8.2.12.1 General

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

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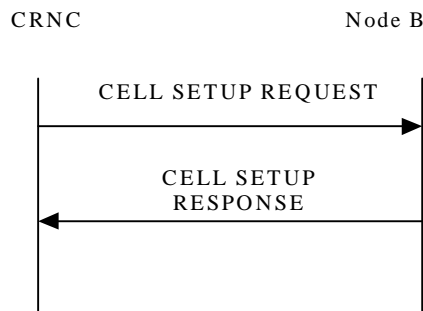
Figure 16: Cell Setup procedure: Successful Operation

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

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

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

[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
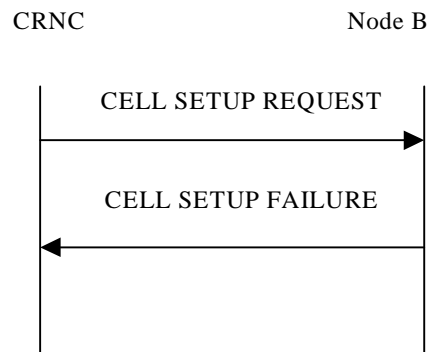
Figure 17: Cell Setup procedure: Unsuccessful Operation

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.

Typical cause values are as follows:

Radio Network Layer Cause

- S-CPICH not supported

- Requested Tx Diversity Mode not supported

- Unknown C-ID

- Power level not supported

- Node B Resources unavailable

Protocol Cause

- Semantic error

Miscellaneous Cause

- O&M Intervention

- Unspecified

- Control processing overload

- HW failure

8.2.12.4 Abnormal Conditions

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8.2.13 Cell Reconfiguration

8.2.13.1 General

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

8.2.13.2 Successful Operation
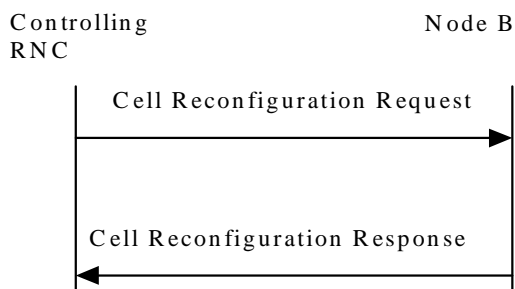
Figure 18: Cell Reconfiguration procedure: Successful Operation

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

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

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

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

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

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

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

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

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

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

[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
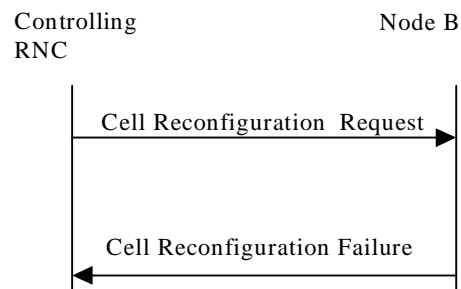
Figure 19: Cell Reconfiguration procedure: Unsuccessful Operation

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.

Typical cause values are as follows:

Radio Network Layer Cause

- Unknown C-ID

- Power level not supported

- Node B Resources unavailable

Protocol Cause

- Semantic error

Miscellaneous Cause

- O&M Intervention

- Unspecified

- Control processing overload

- HW failure

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
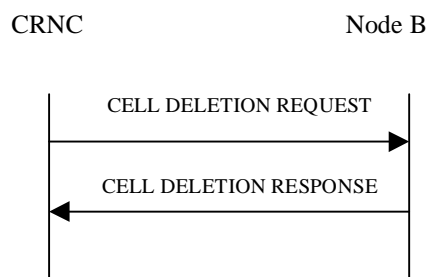
Figure 10: Cell Deletion procedure: Successful Operation

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

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8.2.14.4 Abnormal Conditions

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

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

CRNC   Node B

RESOURCE STATUS INDICATION

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 *Indication Type* IE set equal to "No Failure", the Local Cell Id IE and the Add/Delete Indicator IE set equal to 'Add'. 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 Local Cell 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 Local Cell are modelled as shared resources between Uplink and Downlink. The new resulting Node B capability shall be indicated within the NodeB Information IE group. 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.

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 *Indication Type* IE set equal to "No Failure", the Local Cell Id IE and the Add/Delete Indicator IE set equal to 'Delete'. The new resulting Node B capability shall be indicated within the NodeB Information IE group. 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. 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 *Indication Type* IE set equal to "Service Impacting" and the Local Cell Id. The Node B shall include the *Minimum DL Power Capability* IE when it is known by the Node B. If the DL power capability has changed, the new capability shall be indicated in the *DL Power Capability* IE. If the DL capability for supporting the minimun spreading factor has changed, the new capability shall be indicated in the *Minimum Spreading Factor* IE. The Cause IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value. If the internal resource capabilities of the Local Cell are affected, it shall be reported in the following way: If the internal resource capabilities of the Local Cell are modelled as shared resources between Uplink and Downlink, the new capacity shall be reported in the DL or Global Capacity Credit IE. If the internal resource capabilities of the Local Cell are modelled independently in the Uplink and Downlink direction, then the DL or Global Capacity Credit IE and the UL Capacity Credit IE shall be present in the RESOURCE STATUS INDICATION. If the maximum DL power capability of the Local Cell is affected, this shall be reported using the Maximum DL Power Capability IE.

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 *Indication Type* IE set equal to "Service Impacting", the C-ID IE, the *Resource Operational State* IE and the

Availability Status 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 *Indication Type* IE set equal to "Service Impacting", the *Resource Operational State* IE and the *Availability Status* IE set to appropriate values for the affected channel(s). 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 *Indication Type* IE set equal to "Service Impacting" and 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 *Indication Type* IE set equal to "Service Impacting" and 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.

When the RESOURCE STATUS INDICATION is used to report an error, only one cause value for all reported objects can be sent in one message. When the RESOURCE STATUS INDICATION is used to clear errors, only all errors for one object can be cleared per message. It is not possible to clear one out of several errors for one object.

8.2.15.3 Abnormal Conditions

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8.2.16 System Information Update

8.2.16.1 General

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

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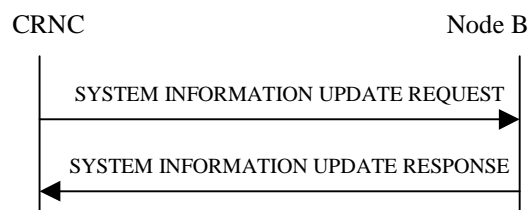
Figure 22: System Information Update procedure: Successful Operation

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

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 occurrence additions, IB occurrence deletions and IB occurrence 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 indicated by the *IB Type* IE and *IB OC ID* 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 and IB OC ID 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

CRNC   Node B

SYSTEM INFORMATION UPDATE REQUEST

SYSTEM INFORMATION UPDATE FAILURE
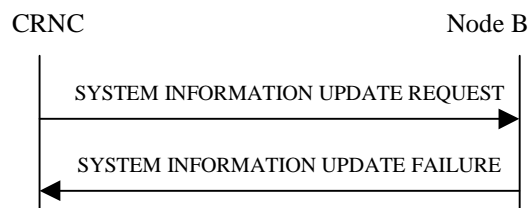
Figure 23: System Information Update procedure: Unsuccessful Operation

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 and IB OC ID 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 and IB OC ID;

- 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 and IB OC ID 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

CRNC   Node B

RADIO LINK SETUP REQUEST

RADIO LINK SETUP RESPONSE
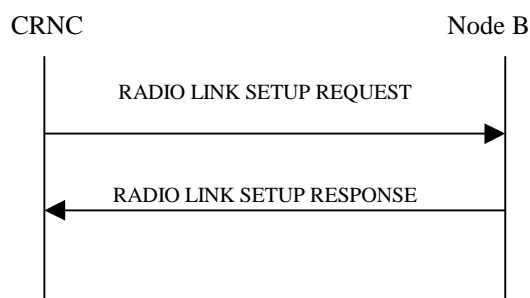
Figure 24: Radio Link Setup procedure: Successful Operation

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, including also combinations where one or more transport channel types are not present.]

[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.]

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

[TDD -If the *DCH Information* IE is present, the Node B shall configure the new DCH(s) according to the parameters given in the message.]

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.

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

[FDD - 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]. [FDD - 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]].

The *Retention Priority* IE defines the priority level that should be used by the Node B to prioritise the retention of the resources used by the DCHes in error situation.

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 RL(s) 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* IE 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 *SSDT Cell Identity* IE, the Node B shall activate SSDT, if supported, using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE.]

[FDD – If the RADIO LINK SETUP REQUEST message includes the *TFCI2 Bearer Information* IE then the Node B shall support the setup of a transport bearer on which the DSCH TFCI Signaling control frames shall be received. The Node B shall manage the time of arrival of these frames according to the values of ToAWS and ToAWE specified in the IE's. The *Binding ID* IE and *Transport Layer Address* IE for the new bearer to be set up for this purpose shall be returned in the RADIO LINK SETUP RESPONSE message.]

[FDD - If the *TFCI Signaling Mode* IE within the RADIO LINK SETUP message indicates that there shall be a hard split on the TFCI field but the *TFCI2 Bearer Information* IE is not included in the message then the Node B shall set the TFCI2 field transmit power to zero dbm.]

[FDD - If the *TFCI Signaling Mode* IE within the RADIO LINK SETUP message indicates that there shall be a hard split on the TFCI and the *TFCI2 BearerI nformation* IE is included in the message then the Node B shall set the TFCI2 field transmit power to zero dbm until Synchronization is achieved on the TFCI2 transport bearer and the first valid DSCH TFCI Signaling control frame is received on this bearer (see ref.[24]).]

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

[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* IE 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 – In case the *USCH Information* IE is present, 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]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity* IE, the Node B may activate SSDT using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE.]

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

8.2.17.3 Unsuccessful Operation
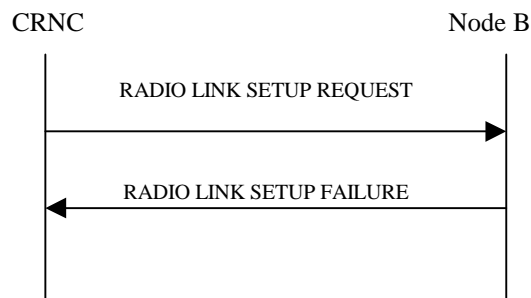
Figure 25: Radio Link Setup procedure: Unsuccessful Operation

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.

[FDD - 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" [TDD – or no 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 Node B cannot support the requested number of DL Codes on a permanent basis, the Node B shall regard the Radio Link Setup procedure as failed and shall respond with the RADIO LINK SETUP FAILURE message with the cause value "Number of DL Codes Not Supported".]

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

- Combining not supported

- Combining Resources not available

- Requested Tx Diversity Mode not supported

- Invalid CM Settings

- Number of DL codes not supported

- UL SF not supported

- DL SF not supported

- Dedicated Transport Channel Type not supported

- Downlink Shared Channel Type not supported

- Uplink Shared Channel Type not supported

- CM not supported

Transport Layer Cause

- Transport Resources Unavailable

Protocol Cause

- Semantic error

Miscellaneous Cause

- O&M Intervention

- Unspecified

- Control processing overload

- HW failure

8.2.17.4   Abnormal Conditions

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8.2.18   Physical Shared Channel Reconfiguration [TDD]

8.2.18.1   General

This procedure is used for handling PDSCH Sets and PUSCH Sets in the Node B, i.e.

- Adding new PDSCH Sets and/or PUSCH Sets,

- Modifying these, and

- Deleting them.

8.2.18.2 Successful Operation
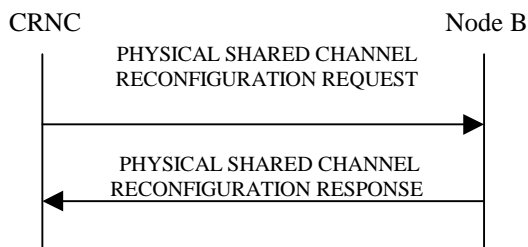
Figure 26: Physical Shared Channel Reconfiguration: Successful Operation

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

If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes an *SFN* IE the Node B will activate the new configuration on that specified SFN.

PDSCH/PUSCH Addition

If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be added the Node B shall add these new sets to its PDSCH/PUSCH configuration.

PDSCH/PUSCH Modification

If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets 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 set are still applicable.

PDSCH/PUSCH Deletion

If the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST message includes any PDSCH sets or PUSCH sets to be deleted the Node B shall delete these new sets to its PDSCH/PUSCH configuration.

In the successful case, the Node B shall add, modify and delete the PDSCH Sets and PUSCH Sets in the Common Transport Channel data base, as requested in the PHYSICAL SHARED CHANNEL RECONFIGURATION REQUEST, and shall make these available to all the current and future DSCH and USCH transport channels; and shall respond with PHYSICAL SHARED CHANNEL RECONFIGURATION RESPONSE:

8.2.18.3 Unsuccessful Operation
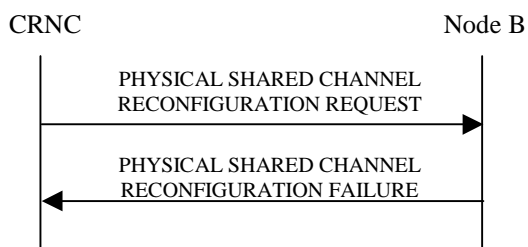
Figure 27: Physical Shared Channel Reconfiguration procedure: Unsuccessful Opreration

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

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8.2.19   Reset

8.2.19.1   General

The purpose of the reset procedure is to align the resources in the CRNC and Node B in the event of an abnormal failure. The CRNC or Node B may initiate the procedure.

8.2.19.2   Successful Operation

8.2.19.2.1   Reset Initiated by the CRNC
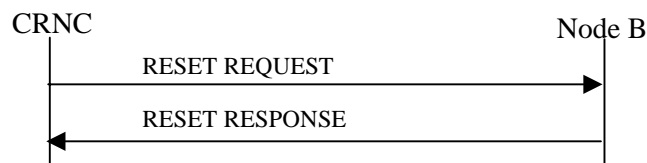
Figure 27A Reset procedure (CRNC to Node B), Successful Operation

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

If the *Reset Indicator* IE is set to 'CommunicationContext', the Node B shall remove all the indicated Node B Communication Contexts and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

If the *Reset Indicator* IE is set to 'CommunicationControlPort', the Node B shall remove all the Node B Communication Contexts controlled via the indicated Communication Control Port(s) and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were

involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

If the *Reset Indicator* IE is set to the 'Node B', the Node B shall remove all the Node B Communication Contexts within the Node B and all the radio resources allocated for these Node B Communication Contexts. The Node B shall also initiate release of the user plane transport bearers that were involved in these Contexts. After clearing all related resources, the Node B shall return the RESET RESPONSE message to the CRNC.

8.2.19.2.2 Reset Initiated by the Node B
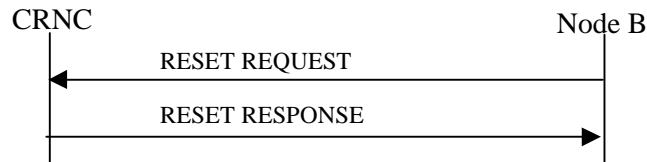
Figure 27B Reset procedure (Node B to CRNC), Successful Operation

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

If the *Reset Indicator* IE is set to 'CommunicationContext', for all indicated CRNC Communication Contexts the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the indicated CRNC Communication Contexts. After clearing all related resources, the CRNC shall return the RESET RESPONSE message to the Node B.

If the *Reset Indicator* IE is set to 'CommunicationControlPort', for all the CRNC Communication Contexts controlled via the indicated Communication Control Port(s)) the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the CRNC Communication Contexts controlled via the indicated Communication Control Port(s)). After clearing all related resources, the CRNC shall return the RESET RESPONSE message to Node B.

If the *Reset Indicator* IE is set to the 'Node B', for all the CRNC Communication Contexts related to this Node B the CRNC shall remove the information related to this Node B and all the radio resources allocated in the CRNC. The CRNC shall also initiate release of the user plane transport bearers towards the Node B involved in the CRNC Communication Contexts related to this Node B. After clearing all related resources, the CRNC shall return the RESET RESPONSE message to Node B.

8.2.19.3 Unsuccessful Operation

-

8.2.19.4 Abnormal Conditions

If the RESET message is received any ongoing procedure related to a CRNC Communication Context in the CRNC or Node B Communication Context in the Node B indicated (explicitly or implicitly) in the message shall be aborted.

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         |
          |<---------------------------------------------|
          |                                              |
          |                                              |
```
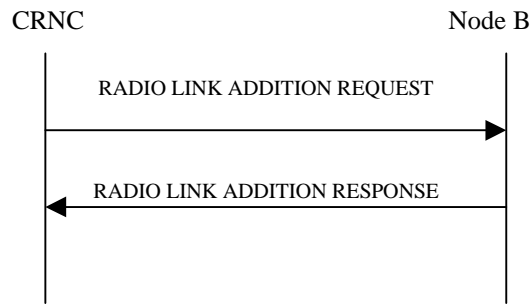
Figure: 28 Radio Link Addition procedure: Successful Operation

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.

[TDD - If the *UL CCTrCH Information* IE is present, the Node B shall configure the new UL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *DL CCTrCH Information* IE is present, the Node B shall configure the new DL CCTrCH(s) according to the parameters given in the message.]

[TDD - If the *UL DPCH Information* IE is present, the Node B shall configure the new UL DPCH(s) according to the parameters given in the message.]

[TDD - If the *DL DPCH Information* IE is present, the Node B shall configure the new DL DPCH(s) according to the parameters given in the message.]

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 shall activate SSDT, if supported, for the concerned new RL , with the indicated SSDT cell identity used for that RL.]

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

[FDD – 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, [TDD - DSCH, USCH] 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.

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 – When *Transmit Diversity Indicator* IE is present Node B shall activate/deactivate the Transmit Diversity to each new Radio Link in accordance with the *Transmit Diversity Indicator* IE and the already known diversity mode.]

[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
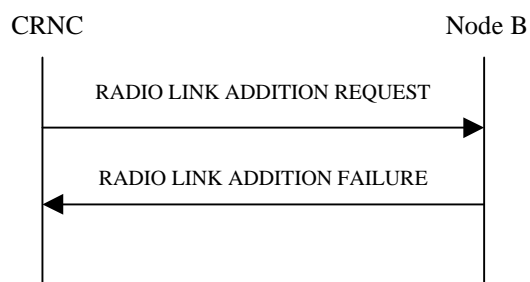
Figure 29: Radio Link Addition procedure: Unsuccessful Operation

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 Node B is not able to establish the requested RLs due to that the Node B has received a RADIO LINK RECONFIGURATION COMMIT and the indicated reconfiguration CFN has not yet elapsed, the Node B shall indicate this with the cause value "Reconfiguration CFN not elapsed" in the RADIO LINK ADDITION FAILURE message.

[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 not supported

- Combining Resources not available

- Requested Tx Diversity Mode not supported

- UL SF not supported

- DL SF not supported

- Invalid CM Settings

- Reconfiguration CFN not elapsed

- CM not supported

Transport Layer Cause

- Transport Resources Unavailable

Protocol Cause

- Semantic error

Miscellaneous Cause

- O&M Intervention

- Unspecified

- Control processing overload

- HW failure

8.3.1.4   Abnormal conditions

-

8.3.2   Synchronised Radio Link Reconfiguration Preparation

8.3.2.1   General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of all Radio Links related to one UE-UTRAN connection within a Node B.

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

8.3.2.2 Successful Operation


```
        CRNC                                    Node B

          |                                        |
          |   RADIO LINK RECONFIGURATION PREPARE   |
          |--------------------------------------->|
          |                                        |
          |    RADIO LINK RECONFIGURATION READY    |
          |<---------------------------------------|
          |                                        |
```
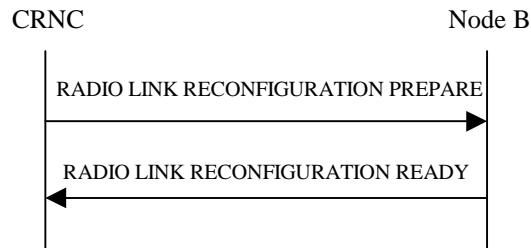
Figure 30: Synchronised Radio Link Reconfiguration procedure, Successful Operation

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 any *DCHs to Modify* IEs then the Node B shall treat them each as follows:

- If the *DCHs to Modify* IE includes the *Retention Priority* IE, the Node B should use this information to prioritise the retention of the resources used by the DCHes in error situation.

- If the *DCHs to Modify* IE includes the *Frame Handling Priority* IE, 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 *DCHs to Modify* IE includes the *Transport Format Set* IE for the UL of a DCH, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

- If the *DCHs to Modify* IE includes the *Transport Format Set* IE for the DL of a DCH, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

- If the *DCHs to Modify* IE includes 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 *DCHs to Modify* IE includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, 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 *DCHs to Modify* IE includes the *ToAWS* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, 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 *DCHs to Modify* IE includes the *ToAWE* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, 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.

- [TDD – If the *DCHs to Modify* IE includes the *CCTrCH Id* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH Id in the Downlink of this DCH in the new configuration.]

- [TDD - If the *DCHs to Modify* IE includes the *CCTrCH Id* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH Id in the Uplink of this DCH in the new configuration.]

DCH Addition:

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

- 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 DCHs in the new configuration.

- If the *DCHs to Add* IE 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.

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

- 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.

- [TDD – The Node B shall apply the *CCTrCH Id* IE (for the DL) in the Downlink of this DCH in the new configuration.]

- [TDD – The Node B shall apply the *CCTrCH Id* IE (for the UL) in the Uplink of this DCH in the new configuration.]

DCH Deletion:

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

If all of 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 an *UL DPCH Information* IE then the Node B shall apply the parameters to the new configuration as follows:]

- [FDD - If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the Node B shall apply this Uplink Scrambling Code to the new configuration.]

- [FDD – If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the Node B shall apply the value in the new configuration. The Node B shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]

- [FDD – If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the Node B shall use the value for the UL inner loop power control when the new configuration is being used.]

- [FDD – If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the Node B shall apply the value in the uplink of the new configuratio

- [FDD - The Node B shall use the *TFCS* IE for the UL (if present) 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 - If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, group the Node B shall set the new Uplink DPCCH Structure to the new configuration.]

- [FDD - If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the Node B shall apply diversity according to the given value.]

- [FDD – If the *UL DPCH Information* IE includes an *SSDT Cell Identity Length* IE and/or an *S-Field Length* IE, the Node B shall apply the values in the new configuration.]

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

- [FDD - The Node B shall use the *TFCS* IE for the DL (if it is present) 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 *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE or the *TFCI Presence* IE, the Node B shall use the information when building TFCIs in the new configuration.]

- [FDD - If the *DL DPCH Information* IE includes the *DL DPCCH Slot Format* IE, group the Node B shall set the new Downlink DPCCH Structure to the new configuration.]

- [FDD – If the *DL DPCH Information* IE includes the *Multiplexing Position* IE, the Node B shall apply the indicated multiplexing type in the new configuration.]

- [FDD – If the *DL DPCH Information* IE 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 *DL DPCH Information* IE 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 *DL DPCH Information* IE 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 *DL DPCH Information* IE 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.]

[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, and the Transmission Gap Pattern Sequence Codes to be used in the new Compressed Mode Configuration.]

[TDD - UL/DL CCTrCH Modification]

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

- [TDD - If the IE 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 IE includes any *UL DPCH to add* or *DL DPCH to add* IEs, the Node B shall include this DPCH in the new configuration.]

- [TDD – If the IE includes any *UL DPCH to delete* or *DL DPCH to delete* IEs, the Node B shall remove this DPCH in the new configuration.]

- [TDD – If the IE includes any UL *DPCH to modify* or *DL DPCH to modify* IEs, and includes any of *Repetition Period* IE, *Repetition Length* IE, or *TDD DPCH Offset* IE or the message includes UL/DL Timeslot Information and includes any of *Midamble shiftand Burst Type* IE, *Time Slot* IE, or *TFCI presence* IE or the message includes UL/DL Code information the Node B shall apply these specified information elements as the new values, otherwise the old values specified for this DPCH configuration are still applicable.]

[TDD – UL/DL CCTrCH Addition]

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

[TDD - If the *UL/DL CCTrCH to Add* IE includes any *UL/DL DPCH Information* IE, the Node B shall reserve necessary resources for the new configuration of the UL/DL DPCH(s) according to the parameters given in the message.]

[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.]

DSCH Addition/Modification/Deletion:

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH to modify*, *DSCH to add* or *DSCH to delete* IEs, then the 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.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *TFCI2 Bearer Information* IE then the Node B shall support the setup of a transport bearer on which the DSCH TFCI Signaling control frames shall be received if one does not already exist or shall apply the new values if such a bearer does already exist.   The *Binding ID* IE and *Transport Layer Address* IE of any new bearer to be set up for this purpose shall be returned in the RADIO LINK RECONFIGURATION READY message. If the RADIO LINK RECONFIGURATION PREPARE message specifies that the TFCI2 transport bearer is to be deleted then the Node B shall release the resources associated with that bearer in the new configuration.

[FDD - If the *TFCI S ignaling Mode* IE within the RADIO LINK RECONFIGURATION PREPARE message indicates that there shall be a hard split on the TFCI field but a TFCI2 transport bearer has not already been set up and *TFCI2 Bearer Information* IE is not included in the message then the Node B shall set the TFCI2 field transmit power to zero dbm in the new configuration.]

[FDD - If the *TFCI S ignaling Mode* IE within the RADIO LINK RECONFUGURATION PREPARE message indicates that there shall be a hard split on the TFCI and the *TFCI2 Bearer Information* IE is included in the message then the Node B shall set the TFCI2 field transmit power to zero dbm until Synchronization is achieved on the TFCI2 transport bearer and the first valid DSCH TFCI Signaling control frame is received on this bearer in the new configuration (see ref.[24]).]

[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.

RL Information:

If the RADIO LINK RECONFIGURATION PREPARE message includes the *RL Information* IE, the Node B shall treat it as follows:

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

- [FDD - If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT Active in the UE", the Node B may activate SSDT using the *SSDT Cell Identity* IE in the new configuration.]

- [FDD - If the *RL Information* IE includes the *SSDT Indication* IE set to "SSDT not Active in the UE", the Node B shall deactivate SSDT in the new configuration.]

- [FDD – If the *RL Information* IE includes a *DL Code Information* IE containing a *DL Scrambling Code* IE, the Node B shall apply the scrambling code in the new configuration.]

- [FDD - If the *RL Information* IE includes the *UL Scrambling Code* IE, the Node B shall apply this Uplink Scrambling Code to the new configuration.]

- [FDD – If the *RL Information* IE includes the *DL Code Information* IE containing a *DL Channelisation Code Number* IE, the Node B shall apply the channelisation code in the new configuration.]

- [FDD- If the *RL Information* IE contains the *Transmission Gap Pattern Sequence Code Information* IE for any of the allocated DL Channelisation code, the Node B shall apply the alternate scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]

- If the *RL Information* IE includes the *Maximum DL Power* and/or the *Minimum DL Power* IEs, the Node B shall apply the values in the new configuration.

General

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 the RADIO LINK RECONFIGURATION READY message, the Node B shall include the *RL Information Response* IE for each affected Radio Link.

The Node B shall include in the RADIO LINK RECONFIGURATION READY message the Transport Layer Address and the Binding ID of any Transport Channels being added or modified. In case of a set of coordinated DCHs requiring a new transport bearer on Iub, the *DCH Information Response* IE shall be included only for one of the DCH in the set of coordinated DCHs.

In case of a Radio Link being combined with another Radio Link within the Node B,the RL Information Response IE group shall be included only for one of the combined RLs.

8.3.2.3 Unsuccessful Operation

CRNC   Node B

RADIO LINK RECONFIGURATION PREPARE

RADIO LINK RECONFIGURATION FAILURE
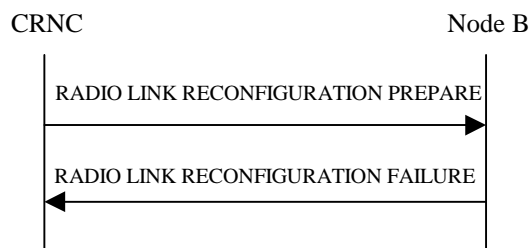
Figure 31: Synchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

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" [TDD – or no 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 support the requested number of DL Codes on a permanent basis, the Node B shall regard the Radio Link Setup procedure as failed and shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Number of DL Codes Not Supported".]

[FDD - If the RL Information IE includes the *SSDT Indication* IE set to "SSDT Active in the UE" and SSDT is not active in the current configuration, the Node B shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as failed if the *UL DPCH Information* IE does not include the *SSDT Cell Identity Length* IE. In this case, it shall respond with a RADIO LINK RECONFIGURATION FAILURE message.]

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

- UL SF not supported

- DL SF not supported

- Invalid CM Settings

- Downlink Shared Channel Type not supported

- Uplink Shared Channel Type not supported

- CM not supported

- Number of DL codes not supported

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
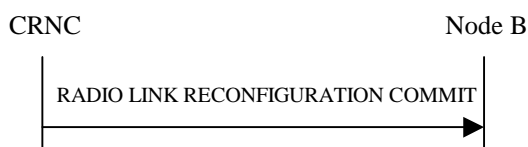
Figure 32: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation

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
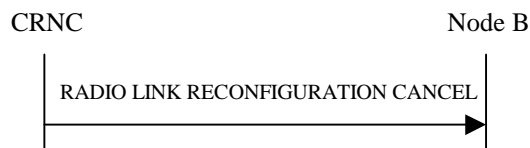
Figure 33:Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation

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
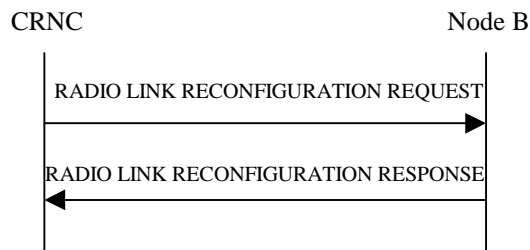
Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation

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 any *DCHs to Modify* IEs then the Node B shall treat them each as follows:

-          If the *DCHs to Modify* IE includes on the *Retention Priority* IE, the Node B should use this new value to prioritise the retention of the resources used by the DCHes in error situation.

-          If the *DCHs to Modify* IE includes on the *Frame Handling Priority* IE, 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 *DCHs to Modify* IE includes the *Transport Format Set* IE for the UL, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.

-          If the *DCHs to Modify* IE includes the *Transport Format Set* IE for the DL, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.

-          If the *DCHs to Modify* IE includes 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 *DCHs to Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs, 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 *DCHs to Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs, 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 *DCHs to Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs, 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.

-          [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH Id* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH Id in the Downlink of this DCH in the new configuration.]

-          [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH Id* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH Id in the Uplink of this DCH in the new configuration.]

DCH Addition:

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCH to Add* IEs, 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 DCHs in the new configuration. In particular:

- If a *DCHs to Add* IE includes multiple *DCH Specific Info* IEs 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.

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

- The Node B should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new configuration has been activated.

- The Node B shall use the included *UL FP Mode* IE for a DCH 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.

- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH Id* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH Id in the Downlink of this DCH in the new configuration.]

- [TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH Id* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH Id in the Uplink of this DCH in the new configuration.]

DCH Deletion:

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be deleted from the Radio Link(s), the Node B shall not include this DCH in the new configuration.

If all of 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.

[FDD - Physical Channel Modification:]

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

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

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

- [FDD - If the *DL DPCH Information* IE includes on the *TFCS* IE for the DL, the Node B shall apply the new TFCS in the Downlink of the new configuration.]

- [FDD – If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE, the Node B shall use the use the information when building TFCIs in the new configuration.

- [FDD – If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to 'Used', the Node B shall, if supported, use Limited Power Increase according to ref. [10] section 5.2.1 for the inner loop DL power control in the new configuration.]

- [FDD – If the *DL DPCH Information* IE 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 *DL DPCH Information* IE 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 *DL DPCH Information* IE 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 - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH to modify* IE or *DL CCTrCH to modify* IE in 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.]

[TDD - If the *UL/DL CCTrCH to modify* IE 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 CCTrCH to delete* IE or *DL CCTrCH to delete* IE, the Node B shall not include this CCTrCH in the new configuration.]

 RL Information:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *RL Information* IE, the Node B shall treat it as follows:

- [TDD - If the *DL Timeslot ISCP* IE is present, the Node B may use the indicated value when deciding the DL TX Power for each timeslot.]

- If the *RL Information* IE 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 *RL Information* IE 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 *RL Information* IE 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.]

- [FDD- If the *RL Information* IE contains the *Transmission Gap Pattern Sequence Code Information* IE for any of the allocated DL Channelisation code, the Node B shall apply the alternate scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]

General

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 the RADIO LINK RECONFIGURATION RESPONSE message, the Node B shall include the *RL Information Response* IE for each affected Radio Link.

The Node B shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Transport Layer Address* IE and the *Binding ID* IE for any Transport Channels being added or modified. In case of a set of coordinated

DCHs requiring a new transport bearer on Iub, the *DCH Information Response* IE 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, *RL Information Response* IE group shall be included only for one of the combined Radio Links.

8.3.5.3 Unsuccessful Operation
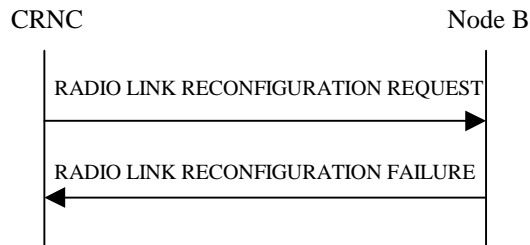
CRNC   Node B

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" [TDD – or no 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.

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

- Invalid CM Settings

- CM not supported

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
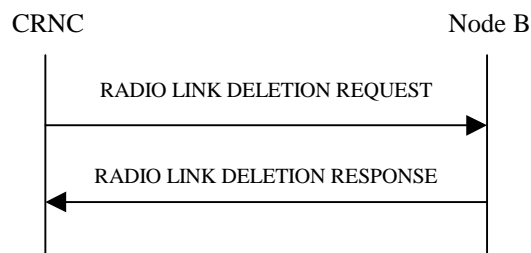
Figure 36: Radio Link Deletion procedure: Successful Operation

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

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8.3.6.4 Abnormal Conditions

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8.3.7 Downlink Power Control [FDD]

8.3.7.1 General

The purpose of this procedure is to balance the DL transmission powers of one or more Radio Links used for the related RRC connection within the Node B. The Downlink Power Control procedure may be initiated by the CRNC at any time when the Node B communication context exists, irrespective of other ongoing CRNC initiated dedicated NBAP procedures towards this Node B communication context. The only exception occurs when the CRNC has requested the deletion of the last RL via this Node B, in which case the Downlink Power Control procedure shall no longer be initiated.

8.3.7.2   Successful Operation

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 and the DL TX power range set by the CRNC.

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

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8.3.8   Dedicated Measurement Initiation

8.3.8.1   General

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

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

8.3.8.2   Successful Operation

CRNC   Node B

DEDICATED MEASUREMENT INITIATION
REQUEST

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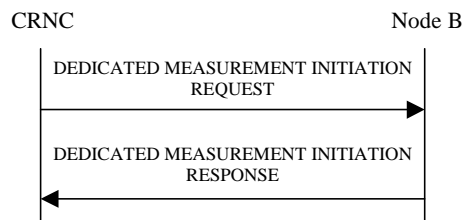
Figure 38: Dedicated Measurement Initiation procedure: Successful Operation

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.

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
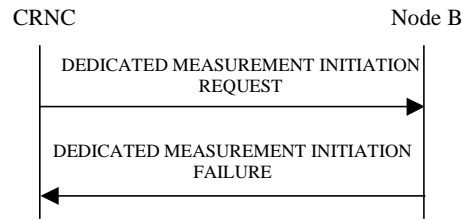
Figure 39: Dedicated Measurement Request procedure: Unsuccessful Operation

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.

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               │
          │ ──────────────────────────────────► │
          │                                        │
```
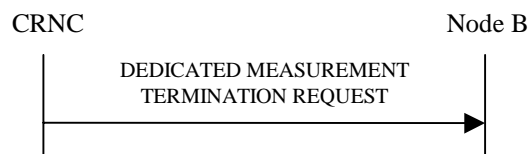
Figure 41: Dedicated Measurement Termination procedure: Successful Operation

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

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

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.]

In the other cases Radio Link Failure procedure is used to indicate that one or more Radio Links/Radio Link Sets are permanently unavailable and cannot be restored. After sending the RADIO LINK FAILURE INDICATION message to

notify the permanent failure, the Node B shall not remove the Radio Link/Radio Link Set from the UE context, or the UE context itself. When applicable, the retention priorities associated to the transport channels shall be used by the Node B to prioritise which Radio Links/Radio Link Sets to indicate as unavailable to the CRNC.

When the Radio Link Failure procedure is used to notify the loss of UL synchronisation, the message shall be sent, with the cause value 'Synchronisation Failure', 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].

In the other cases Radio Link Failure procedure is used to indicate that one or more Radio Links or Radio Link Sets are permanently unavailable and cannot be restored. After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the Node B shall not remove the Radio Links from the UE context, or the UE context itself.

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
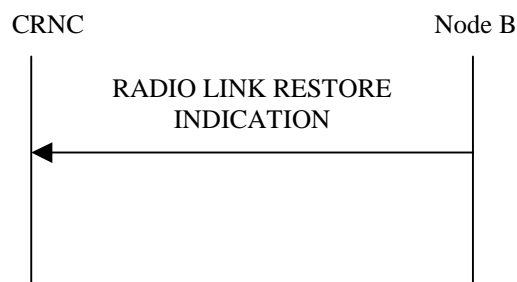
Figure 44: Radio Link Restoration procedure: Successful Operation

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 Node B 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
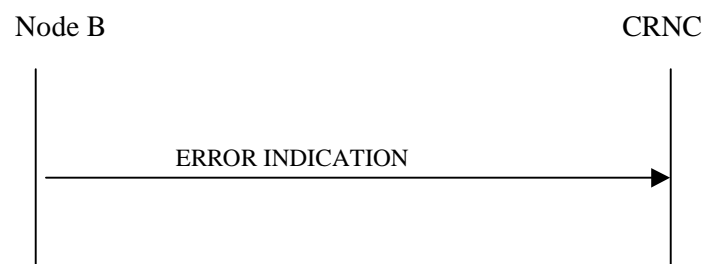
ERROR INDICATION

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

CRNC   Node B
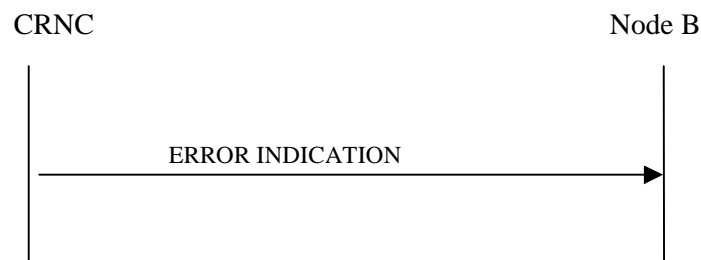
ERROR INDICATION

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]: $_{S\text{-}CCPCH,k}$	–	
>>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	Refer to TS [7]	–	
>>Multiplexing Position	M		9.2.2.23		–	
>>Power Offset Information		1			–	
>>>PO1	M		Power Offset 9.2.2.29	Power offset for the TFCI bits	–	
>>>PO3	M		Power Offset 9.2.2.29	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		9.2.1.49A		–	
>>>>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		9.2.1.49A		–	
>>>>STTD Indicator	M		9.2.2.47		–	
>PCPCHes					YES	Reject
>>CPCH Parameters		*1*			–	
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>Transport Format Set	M		9.2.1.59	For the UL.	–	
>>>AP Preamble Scrambling Code	M		CPCH Scrambling Code Number 9.2.2.4B		–	
>>>CD Preamble Scrambling Code	M		CPCH Scrambling Code Number		–	

			9.2.2.4B			
>>>TFCS	M		9.2.1.58	For the UL	–	
>>>CD Signatures	O		Preamble Signatures 9.2.2.31	Note: When not present, all CD signatures are to be used.	–	
>>>CD Sub Channel Numbers	C-CDSig		9.2.2.1C		–	
>>>Puncture Limit	M		9.2.1.50	For the UL	–	
>>>CPCH UL DPCCH Slot Format	M		9.2.2.4C	For UL CPCH message control part	–	
>>>UL SIR	M		UL SIR 9.2.2.58		–	
>>>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		–	
>>>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		–	
>>>N_Start_Message	M		9.2.2.23C		–	
>>>N_EOT	M		9.2.2.23A		–	
>>>Channel Assignment Indication	M		9.2.2.1D		–	
>>>CPCH Allowed Total Rate	M		9.2.2.4A		–	
>>>PCPCH Channel Information		*1..<ma xnoofP CPCHs >*			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>CPCH Scrambling Code Number	M		9.2.2.4B	For UL PCPCH	–	
>>>>DL Scrambling Code	M		9.2.2.13	For DL CPCH message part	–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14	For DL CPCH message part	–	
>>>>PCP Length	M		9.2.2.24A		–	
>>>>UCSM Information	C-NCA	*1*			–	
>>>>>Min UL Channelisation Code Length	M		9.2.2.22		–	
>>>>>NF_max	M		9.2.2.23B		–	

>>>>>Channel Request Parameters		*0..<maxAPSigNum>*			–	
>>>>>>AP Preamble Signature	M		9.2.2.1A		–	
>>>>>AP Sub Channel Number	O		9.2.2.1B		–	
>>>VCAM Mapping Information	C-CA	*1..<maxnoofLen>*		Refer to TS [18]	–	
>>>>Min UL Channelisation Code Length	M		9.2.2.22		–	
>>>>NF_max	M		9.2.2.23B		–	
>>>>Max Number of PCPCHes	M		9.2.2.20A		–	
>>>>SF Request Parameters		*1..<maxAPSigNum>*			–	
>>>>>AP Preamble Signature	M		9.2.2.1A		–	
>>>>>AP Sub Channel Number	O		9.2.2.1B		–	
>>>AP-AICH 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		–	
>>>>AP-AICH Power	M		AICH Power 9.2.2.D		–	
>>>>CSICH Power	M		AICH Power 9.2.2.D	For CSICH bits at end of AP-AICH slot	–	
>>>>STTD Indicator	M		9.2.2.47		–	
>>>CD/CA-ICH 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		–	
>>>>CD/CA-ICH Power	M		AICH Power 9.2.2.D		–	
>>>>STTD Indicator	M		9.2.2.47		–	

Condition	Explanation
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17
ChoiceCh	One of the channels FACH or PCH or both must be present.
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	–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	

>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		–	
>>Midamble shift and Burst Type	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 ACHs>*			GLOBAL	reject
>>Common transport channel ID	M		9.2.1.61		–	
>>CCTrCH ID	M		9.2.3.3		–	
>>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		–	
>>CCTrCH ID	M		9.2.3.3		–	
>>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		–	
>>>Midamble shift and Burst Type	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		9.2.1.49A		YES	reject

PRACH						
>PRACH	M	*1*				
>>Common physical channel ID	M		9.2.1.13			
>>TFCS	M		9.2.1.54			
>>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		*1*			–	
>>>Common transport channel ID	M		9.2.1.13		–	
>>>Transport Format Set	M		9.2.1.59	For the UL		

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		9.2.1.14		–	
>Binding ID	M		9.2.1.4		–	
>Transport layer address	M		9.2.1.63		–	
Criticality Diagnostics	O		9.2.1.17		YES	ignore

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		9.2.1.49A		–	
>_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..<MaxPRACHCell>_			GLOBAL	reject
>>>Common	M		9.2.1.13		–	

Physical Channel ID						
>>>AICH Power	M		9.2.2.D		–	
>CPCH					YES	reject
>>CPCH Parameters		*0..<maxno ofCPCHs>*			GLOBAL	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>UL SIR	O		9.2.2.58		–	
>>>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		–	
>>AP-AICH Parameters		*0..<maxno ofCPCHs>*			GLOBAL	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>AP-AICH Power	M		AICH Power 9.2.2.D		–	
>>>CSICH Power	O		AICH Power 9.2.2.D	For CSICH bits at end of AP-AICH slot	–	
>>CD/CA-ICH Parameters		*0..<maxno ofCPCHs>*			GLOBAL	reject
>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>CD/CA-ICH Power	M		AICH Power 9.2.2.D		–	

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

ETSI

>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		DL power 9.2.1.21		–	
PICH Parameters		0 .. 1			YES	reject
>Common physical channel ID	M		9.2.1.13		–	
>PICH Power	M		9.2.1.49A		–	
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		
>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	M		9.2.1.13		–	

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

Operational State					
>>Availability Status	M		9.2.1.2	–	
>CPCH Information		*0..<maxCPCHCell>*		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	–	
>AP-AICH Information		*0..<maxCPCHCell>*		EACH	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		
>CD/CA-ICH Information		*0..<maxCPCHCell>*		EACH	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		
>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	–	
>Minimum Spreading Factor	O		9.2.1.47		
>Minimum DL Power Capability	O		9.2.1.46A	–	
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"				FDD only	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		9.2.1.9		–	
>>Common transport channel ID	M		9.2.1.14		–	
>>Spreading Factor	O		Minimum UL Channelisation Code Length 9.2.2.22		–	
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*	O			Common Measurement Object Type that the measurement was initiated with.	YES	ignore
>"Cell"					YES	ignore
>>Common Measurement value	M		9.2.1.12		–	
>"RACH"				FDD only	YES	ignore
>>Common Measurement Value	M		9.2.1.12		–	
>"CPCH"				FDD only	YES	Ignore
>>Common Measurement Value	M		9.2.1.12		–	
SFN	O		9.2.1.53A	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"				FDD only	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
>>CHOICE *Measurement Availability Indicator*						
>>>"*Measurement Available"*					YES	ignore
>>>Common Measurement Value	M		9.2.1.12		–	
>>>"*Measurement not Available"*			NULL		YES	ignore
SFN	O		9.2.1.53A	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	C-add		9.2.1.39		–	
>>>Minimum Spreading Factor	C-add		9.2.1.47		–	
>>>Minimum DL Power Capability	M		9.2.1.46A		–	
>*"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		–	
>>>Minimum Spreading Factor	O		9.2.1.47		–	

ETSI

>>>Minimum DL Power Capability	O		9.2.1.46A		–	
>>Communication Control Port Information		*0.. \<maxCCPi nNodeB>*			EACH	ignore
>>>Communication Control Port ID	M		9.2.1.15		–	
>>>Resource Operational State	M		9.2.1.52		–	
>>>Availability Status	M		9.2.1.2		–	
>>Cell Information		*0.. \<maxCellin NodeB>*			EACH	ignore
>>>C-ID	M		9.2.1.9		–	
>>>Resource Operational State	O		9.2.1.52		–	
>>>Availability Status	O		9.2.1.2		–	
>>>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

ETSI

>>>>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	M		9.2.1.13		–	

Physical Channel ID						
>>>>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		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>CPCH Information		*0.. <maxCPC 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		–	
>>>AP-AICH Information		*0.. <maxCPC HCell>*			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		–	
>>>CD/CA-ICH Information		*0.. <maxCPC HCell>*			EACH	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>SCH Information		0..1			YES	ignore
>>>>Common 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		–	
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		–	
>IB OC ID	M		9.2.1.31A	In one message, every occurrence of IB Type can only be deleted 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 – CRNCOrigination		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

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		9.2.2.9		–	
>SSDT cell ID Length	O		9.2.2.45		–	
>S Field Length	C-FBI		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	–	
>>Retention Priority	M		9.2.1.52A		–	
>>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	–	
>Retention Priority	M		9.2.1.52A		–	
>Frame handling Priority	M		9.2.1.30		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
TFCI2 bearer information		0..1			-	
>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
FBI	This IE shall be present if the *UL DPCCH Slot Format* IE indicates a slot format with 1 or 2 FBI bits (see ref.[7])
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* IE 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* IE 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..1			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information		1 .. <maxnoof ULts>			–	
>>>Time Slot	M		92.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>UL Code Information		1 .. <maxnoOf DPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
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			
>TPC CCTrCH List		1 to <maxnoC CTrCH>		List of uplink CCTrCH which provide TPC	–	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>DL DPCH information		0..1			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information		1 .. <maxnoof DLts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	

>>>DL Code Information		1 .. <maxnoOf DPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
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	–	
>>Retention Priority	M		9.2.1.52A		–	
>>Frame Handling Priority	O		9.2.1.30		–	
>>QE-Selector	C-CoorDCH		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	–	
>Retention Priority	M		9.2.1.52A		–	
>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	–	
>Retention Priority	M		9.2.1.52A		–	
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 Power 9.2.1.21		–	

ETSI

| >Maximum DL power | M | | DL Power 9.2.1.21 | | – | |
| >Minimum DL power | M | | DL Power 9.2.1.21 | | – | |

Condition	Explanation
CoorDCH	This IE is present only this DCH is part of a set of coordinated DCHs (number of instances of DCH Specific Info is greater than 1)

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
MaxnoofDLts	Maximum number of Downlink time slots per Radio Link
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

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		–	
>RSSI	M		9.2.2.39A		–	
>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		–	
TFCI2 bearer information Response		0..1				
>Binding ID	M		9.2.1.4		-	
>Transport Layer Address	M		9.2.1.63		-	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Condition	Explanation
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 Timeslot ISCP	M		9.2.3.26A			
>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	C-Success		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			
>>>RSSI	M		9.2.2.39A		–	
>>>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						
>>>TFCI2 bearer information Response		0..1				
>>>>Binding ID	M		9.2.1.4		-	
>>>>Transport Layer Address	M		9.2.1.63		-	
>>>SSDT Support Indicator	M		9.2.2.46		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

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

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

9.1.38.2 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..<maxnoofRL-1>*			EACH	notify
>RL ID	M		9.2.1.53		–	
>C-Id	M		9.2.1.9		–	
>Frame Offset	M		9.2.1.31		–	
>Chip Offset	M		9.2.2.2		–	
>Diversity Control Field	M		9.2.1.25		–	
>DL Code Information		1..*maxnoofDLCodes*			–	
>>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	O		9.2.2.53			

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		9.2.1.62		–	
UL CCTrCH Information		0 to <maxno CCTrCH>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>UL DPCH Information		0..1			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information		1 .. <maxnoofULts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>UL Code Information		1 .. <maxnoOfDPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
DL CCTrCH Information		0 to <maxno CCTrCH>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>DL DPCH information		0..1			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information		1 .. <maxnoofDLts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>DL Code Information		1 .. <maxnoOfDPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD	M		9.2.3.19		–	

Channelisation Code						
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		9.2.1.25		–	
>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		–	

Range bound	Explanation
MaxnoOfDPCH	Maximum number of DPCH in one CCTrCH
MaxnoCCTrCH	number of CCTrCH for one UE.
MaxnoofDLts	Maximum number of Downlink time slots per Radio Link
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

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			
>RSSI	M		9.2.2.39A		–	
>Diversity Indication	M		9.2.1.26		–	
>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 Timeslot ISCP	M		9.2.3.26A		–	
>Diversity Indication	M		9.2.1.26		–	
>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			
>>>RSSI	M		9.2.2.39A		–	
>>>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		–	
>Diversity mode	O		9.2.2.9		–	
>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.	–	
>>Retention Priority	O		9.2.1.52A		–	
>>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 noofDCHs>			–	
>>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		–	
>>Retention Priority	M		9.2.1.52A		–	
>>QE-Selector	M		9.2.1.50A		–	
DCHs to Delete		0..<max noofDCHs>			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
DSCH to modify		0..<max noofDSCHs>			YES	reject
>DSCH ID	M		9.2.1.27		–	
>Transport Format Set	O		9.2.1.59	For the DL.	–	
>Retention Priority	O		9.2.1.52A		–	
>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 noofDSCHs>			YES	reject
>DSCH ID	M		9.2.1.27		–	
>Transport Format Set	M		9.2.1.59	For the DL.	–	
>Retention Priority	M		9.2.1.52A		–	
>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 noofDSCHs>			YES	reject
>DSCH ID	M		9.2.1.27		–	
TFCI2 bearer specific information		0..1				
>CHOICE *TFCI2 bearer action*						
>>"*Add or modify*"						
>>>ToAWS	M		9.2.1.61		–	
>>>ToAWE	M		9.2.1.60		–	
>>"*Delete*"		NULL				
RL Information		0..<max noofRLs>			EACH	reject
>RL ID	M		9.2.1.53		–	
>DL Code Information		0..<max noofDLCodes<			–	
>>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		–	

ETSI

>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		–	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.53		–	
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".
Diversity mode	This IE is present unless *Diversity Mode* IE in *UL DPCH Information* group, unless it is equal to "none"

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..1			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information		1 .. <maxnoofULts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>UL Code Information		1 .. <maxnoOfDPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
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..1			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information		1 .. <maxnoofULts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M				–	
>>>TFCI Presence	M				–	

>>>UL Code Information		1 .. <maxnoOfDPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>UL DPCH to modify		*0..1*			YES	notify
>>Repetition Period	O		9.2.3.16		–	
>>Repetition Length	O		9.2.3.15		–	
>>TDD DPCH Offset	O		9.2.3.19A		–	
>>UL Timeslot Information		0 to <maxnoofULts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	O				–	
>>>TFCI Presence	O				–	
>>>UL Code Information		0 to <maxnoOfDPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>UL DPCH to delete		*0.. <maxnoof DPCHs>*			GLOBAL	reject
>>DPCH ID	M				–	
UL CCTrCH to Delete		*0.. <maxnoof CCTrCHs>*			GLOBAL	reject
>CCTrCH ID	M				–	
DL CCTrCH to Add		*0.. <maxnoof CCTrCHs*			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		–	
>TPC CCTrCH List		1 to <maxnoCCTrCH>		List of uplink CCTrCH which provide TPC	**–**	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>DL DPCH Information		*0..1*			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information		1 .. <maxnoofDLts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	

>>>TFCI Presence	M		9.2.1.57	−	
>>>DL Code Information		1 .. <maxnoOfDPCH>		−	
>>>>DPCH ID	M		9.2.3.5	−	
>>>>TDD Channelisation Code	M		9.2.3.19	−	
DL CCTrCH to Modify		0.. <maxno of CCTrCHs		GLOBAL	reject
>CCTrCH ID	M			−	
>TFCS	O			−	
>TFCI Coding	O			−	
>PunctureLimit	O			−	
>TPC CCTrCH List		0 to <maxno CCTrCH>		List of uplink CCTrCH which provide TPC	−
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3	−	
>DL DPCH to add		0..1		YES	notify
>>Repetition Period	M		9.2.3.16	−	
>>Repetition Length	M		9.2.3.15	−	
>>TDD DPCH Offset	M		9.2.3.19A	−	
>>DL Timeslot Information		1 .. <maxnoofDLts>		−	
>>>Time Slot	M		9.2.3.23	−	
>>>Midamble Shift and Burst Type	M			−	
>>>TFCI Presence	M			−	
>>>DL Code Information		1 .. <maxnoOfDPCH>		−	
>>>>DPCH ID	M		9.2.3.5	−	
>>>>TDD Channelisation Code	M		9.2.3.19	−	
>DL DPCH to modify		0..1		YES	notify
>>Repetition Period	O		9.2.3.16	−	
>>Repetition Length	O		9.2.3.15	−	
>>TDD DPCH Offset	O		9.2.3.19A	−	
>>DL Timeslot Information		0 .. <maxnoofDLts>		−	
>>>Time Slot	M		9.2.3.23	−	
>>>Midamble Shift and Burst Type	O			−	
>>>TFCI Presence	O			−	
>>>DL Code Information		0 .. <maxnoOfDPCH>		−	
>>>>DPCH ID	M		9.2.3.5	−	
>>>>TDD Channelisation Code	M		9.2.3.19	−	
>DL DPCH to delete		0..		GLOBAL	reject

ETSI

		<maxno of DPCHs >			
>>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.	–
>>Retention Priority	O		9.2.1.52A		–
>>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.	–
>>Retention Priority	M		9.2.1.52A		–
>>Frame Handling Priority	M		9.2.1.30		–
>>QE-Selector	C-CoorDCH		9.2.1.50A		–
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		–	
>Retention Priority	O		9.2.1.52A		–	
>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		–	
>Retention Priority	M		9.2.1.52A		–	
>Frame handling Priority	O		9.2.1.30		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
DSCH Information to delete		0 .. <Maxno of DSCHs >			GLOBAL	reject
>DSCH ID	M		9.2.1.27		–	
USCH Information to modify		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
>Transport Format Set	O		9.2.1.59		–	
>Retention Priority	O		9.2.1.52A		–	
>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		–	
>Retention Priority	M		9.2.1.52A		–	
USCH Information to delete		0 .. <Maxno of			GLOBAL	reject

		USCHs >				
>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		–	

Condition	Explanation
CoorDCH	This IE is present only this DCH is part of a set of coordinated DCHs (number of instances of DCH Specific Info is greater than 1)

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
MaxnoofDLts	Maximum number of Downlink time slots per Radio Link
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

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		–	
>TFCI2 bearer Information Response		0..1				
>>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		–	
>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.	–	
>>Retention Priority	O		9.2.1.52A		–	
>>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		–	
>>Retention Priority	M		9.2.1.52A		–	
>>QE-Selector	M		9.2.1.50A		–	
DCHs to Delete		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
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.
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.	–	
>>Retention Priority	O		9.2.1.52A		–	
>>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.	–	
>>Retention Priority	M		9.2.1.52A		–	
>>Frame Handling Priority	M		9.2.1.30		–	
>>QE-Selector	C-CoorDCH		9.2.1.50A		–	
DCHs to Delete		*0..<maxnoofDSCHs>*			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	
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..<maxnoofDLts>*			–	
>>Time slot	M		9.2.3.23		–	
>>DL Timeslot ISCP	M		9.2.3.4B		–	

Condition	Explanation
CoorDCH	This IE is present only this DCH is part of a set of coordinated DCHs (number of instances of DCH Specific Info is greater than 1)

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a 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		–	
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.

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	TDD only	–	
>"RLS"				FDD only		
>>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*	O			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	TDD only	–	
>>>Dedicated Measurement Value	M		9.2.1.24			
>"RLS" or "ALL RLS"				FDD only	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	TDD only	–	
>>>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"				FDD only		
>>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		–	
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
SFN	O		9.2.1.53A		YES	reject
PDSCH Sets to add		*0..<maxnoof PDSCHSets>*			GLOBAL	reject
>PDSCH Set Id	M		9.2.3.11		-	
>PDSCH Information		*1*			YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>DL Timeslot Information		1 .. <maxnoofDLts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>DL Code Information		1 .. <maxnoOfPDSCH>			–	
>>>>PDSCH ID	M		9.2.3.10		–	

>>>>TDD Channelisation Code	M		9.2.3.19		–	
PDSCH Sets to Modify		*0..<maxnoof PDSCHSets >*			GLOBAL	reject
>PDSCH Set Id	M		9.2.3.11		-	
>PDSCH Information		*1*			YES	reject
>>Repetition Period	O		9.2.3.16		–	
>>Repetition Length	O		9.2.3.15		–	
>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>Midamble Shift and Burst Type	M		9.2.3.7		-	
>>DL Timeslot Information		0 .. <maxnoofDL ts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	O		9.2.3.7		–	
>>>TFCI Presence	O		9.2.1.57		–	
>>>DL Code Information		0 .. <maxnoOfP DSCH>			–	
>>>>PDSCH ID	M		9.2.3.10		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
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		*1*			YES	reject
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD Physical Channel Offset	M		9.2.3.20		–	
>>UL Timeslot Information		1 .. <maxnoofUL ts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>UL Code Information		1 .. <maxnoOfP USCH>			–	
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
PUSCH Sets to Modify		*0..<maxnoof PUSCHSets >*			GLOBAL	reject
>PUSCH Set Id	M		9.2.3.13		-	
>PUSCH Information		*1*			YES	reject
>>Repetition Period	O		9.2.3.16		–	

>>Repetition Length	O		9.2.3.15		–	
>>TDD Physical Channel Offset	O		9.2.3.20		–	
>>UL Timeslot Information		0 .. <maxnoofULts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	O		9.2.3.7		–	
>>>TFCI Presence	O		9.2.1.57		–	
>>>UL Code Information		0 .. <maxnoOfPDSCH>			–	
>>>>PUSCH ID	M		9.2.3.12		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
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.
MaxnoofDLts	Maximum number of Downlink time slots in a cell
MaxnoofULts	Maximum number of Uplink time slots 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.

9.1.65 RESET REQUEST

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

CHOICE *Reset Indicator*					YES	ignore
>*CommunicationContext*					YES	reject
>>**Communication Context Information**		1..<*maxCommunicationContext*>			EACH	reject
>>>CRNC Communication Context ID	C-ifUL				–	
>>>Node B Communication Context ID	C-ifDL				–	
>*CommunicationControl Port*					YES	reject
>>**Communication Control Port Information**		1.. <*maxCCPinNodeB*>			EACH	reject
>>>Communication Control Port ID	M				–	
>*Node B*			Null			

Range bound	Explanation
IfDL	This IE is only present when message is sent by the CRNC .
IfUL	This IE is only present when message is sent by the Node B .
1..maxCommunicationContext	Maximum number of communication contexts that can exist in the Node-B
1.. maxCCPinNodeB	Maximum number of communication control ports that can exist in the Node B

9.1.66   RESET RESPONSE

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

9.2   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, Requested Tx Diversity Mode not supported, Unspecified, BCCH scheduling error, Measurement Temporarily not Available, Invalid CM Setting, Reconfiguration CFN not elapsed, Number of DL codes not supported, S-CPICH not supported, Combining not supported, UL SF not supported, DL SF not supported, Common Transport Channel Type not supported, Dedicated Transport Channel Type not supported, Downlink Shared Channel Type not supported, Uplink Shared Channel Type not supported, CM not supported, ...)	
>*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, Abstract syntax error (falsely constructed message), …)	
>*Misc*				
>Miscellaneous Cause	M		Enumerated (Control processing overload Hardware failure, O&M intervention, Not enough user plane processing resources, Unspecified, …)	

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

Void

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 PRACH preambles, UL Timeslot ISCP, Acknowledged PCPCH Access Preambles, Detected PCPCH Access Preambles, …)	UL Timeslot ISCP is used by TDD only, Acknowledged PRACH preambles, Acknowledged PCPCH Access Preambles, Detected PCPCH Access Preambles are used by FDD only

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 [22] and [23]
>RSSI Value	C MeasValue		INTEGER(0..621)	According to mapping in [22] and [23]
>Acknowledged PRACH Preamble Value (FDD only)	C MeasValue		INTEGER(0..240, …)	According to mapping in [22]
>UL Timeslot ISCP (TDD only)	C MeasValue		INTEGER(0..81)	According to mapping in [23]
>Acknowledged PCPCH Access Preambles (FDD only)	C MeasValue		INTEGER(0..15,…)	According to mapping in [22]
>Detected PCPCH Access Preambles (FDD only)	C MeasValue		INTEGER(0..240,…)	According to mapping in [22]

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

The Criticality Diagnostics IE is sent by a Node B or the CRNC when parts of a received message have not been comprehended or are missing. It contains information about which IE was not comprehended or is missing.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Criticality Diagnostics				
>Procedure ID		0..1		
>>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
>>Ddmode	M		ENUMERATED (FDD, TDD, Common)	Common = common to FDD and TDD.
>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 (1..256)	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, SIR Error are 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 [22] and [23]
>SIR error Value	C *MeasValue*		INTEGER(0. .125)	According to mapping in [22], (FDD only)
>Transmitted Code Power Value	C *MeasValue*		INTEGER(0. .127)	According to mapping in [22] and [23]
>RSCP	C *MeasValue*		INTEGER(0. .81)	According to mapping in [23], (TDD only)
>Rx Timing Deviation	C MeasValue		INTEGER(0. .2047)	According to mapping in [23], (TDD only)
>Round Trip Time	C *MeasValue*		INTEGER(0. .8191)	According to mapping in [22], (FDD only)

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			ENUMERAT ED(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			ENUMERAT ED (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

Void

9.2.1.29   DSCH Transport Format Combination Set

Void

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

9.2.1.31A   IB_OC_ID

The IB OC ID identifies the occurrence of a specific Information Block.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IB OC ID			INTEGER (1.. 16)	

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.. 4094)	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, 4096)	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, SIB15, SIB15.1, SIB15.2, SIB15.3, SIB16, …)	

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

Void.

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 …26843545 5)	

9.2.1.39 Maximum DL Power Capability

This parameter indicates the maximum DL power capability for a local cell within Node B. The reference point is the antenna connector.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Maximum DL Power Capability			ENUMERAT ED(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. The reference point is the antenna connector.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Maximum transmission Power			ENUMERAT ED(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			ENUMERATE D(measureme nt 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			ENUMERAT ED (0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19)	

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 [22] and [23]
Acknowledged PRACH Preambles	*C – Threshold*		INTEGER(0 ..240,…)	According to mapping in [22], (FDD only)
UL Timeslot ISCP	*C – Threshold*		INTEGER(0 ..80)	0: 0 dB 1: 0.5 dB 2: 1 dB … 80: 40dB, (TDD only)
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, (FDD only)
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, (TDD only)
Round Trip Time	*C – Threshold*		INTEGER(0 ..8190)	0: 0 chips 1: 0.25 chips 2: 0.5 chips … 8190: 2047.5 chips, (FDD only)
Acknowledged PCPCH Access Preambles	*C – Threshold*		INTEGER(0 ..15,…)	According to mapping in [22] (FDD only)
Detected PCPCH Access Preambles	*C – Threshold*		INTEGER(0 ..240,…)	According to mapping in [22] (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 [22] and [23]
Transmitted Carrier Power	*C – Threshold*		INTEGER(0. .100)	According to mapping in [22] and [23]
Acknowledged PRACH Preambles	*C – Threshold*		INTEGER(0. .240,…)	According to mapping in [22], (FDD only)
UL Timeslot ISCP	*C – Threshold*		INTEGER(0. .81)	According to mapping in [23] (TDD only)
SIR	*C – Threshold*		INTEGER(0. .63)	According to mapping in [22] and [23]
SIR Error	*C – Threshold*		INTEGER(0. .125)	According to mapping in [22], (FDD only)
Transmitted Code Power	*C – Threshold*		INTEGER(0. .127)	According to mapping in [22] and [23]
RSCP	*C – Threshold*		INTEGER(0. .81)	According to mapping in [23] (TDD only)
Rx Timing Deviation	*C - Threshold*		INTEGER(0. .2047)	According to mapping in [23] (TDD only)
Round Trip Time	*C – Threshold*		INTEGER(0. .8191)	According to mapping in [22] (FDD only)
Acknowledged PCPCH Access Preambles	*C – Threshold*		INTEGER(0. .15,…)	According to mapping in [22] (FDD only)
Detected PCPCH Access Preambles	*C – Threshold*		INTEGER(0. .240,…)	According to mapping in [22] (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			ENUMERAT ED(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, PHYSICAL SHARED CHANNEL RECONFIGURATION, RESET, …)	
>>Ddmode	M		ENUMERATED (FDD, TDD, Common)	Common = common to FDD and TDD.
>Type of Message	M		ENUMERATED (Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.1.46A   Minimum DL Power Capability

This parameter indicates the minimum DL power capability for a local cell within Node B. The reference point is the antenna connector.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Minimum DL Power Capability			ENUMERATED(0..800)	dBm, granularity 0.1 dB 0: -30.0 dBm 1: -29.9 dBm … 799: 49.9 dBm 800: 50.0 dBm

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, 8, 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)	

9.2.1.49A   PICH Power

The PICH Power IE indicates a power level relative to the [FDD-primary CPICH power] [TDD-primary CCPCH power] configured in a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PICH Power			Enumerated(-10..+5dB)	Step 1dB

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].

9.2.1.52A   Retention Priority

The Node B may use the Retention priority information of the transport channels composing the RL to prioritise which RL shall be set to failure, in case prioritisation is possible.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Retention Priority			INTEGER (0..15)	0=Lowest Priority, … 15=Highest Priority

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			ENUMERATED (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. In TDD if it is present in the timeslot, it will be included within the first Channelization code listed.

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)]

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..512)	
>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			ENUMERATED(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 (Normal, Silent,…)	

9.2.1.67 UL interference level

Void.

9.2.2 FDD specific parameters

9.2.2.A Active Pattern Sequence Information

Defines the parameters for the 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 Identifier	M		Integer(1..< MaxTGPS>)	If the group is not present, none of the pattern sequences are activated. References an already defined sequence.
>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.D   AICH Power

The AICH Power IE indicates a power level relative to the primary CPICH power configured in a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
AICH Power			Enumerated(-10..+5dB)	Step 1dB

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			ENUMERATED (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			ENUMERATED (Offset1, Offset2,…)	According to [10] 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

3GPP TS 25.433 version 3.3.0 Release 1999

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

Void.

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

Void.

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

Void.

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 ChannelisationCode Number			INTEGER(0.. 511)	According to the mapping in [9]. 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

Void.

9.2.2.18 Gap Position Mode

Void.

9.2.2.18A 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)	

9.2.2.19   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			ENUMERATED(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(s). There are three fundamentally different ways that 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 vary depending on the way in which the UTRAN configures usage of the DSCH. A fourth option is also provided

which allows the UTRAN to replace individual entries in the TFCI(field 2) to PDSCH code mapping table with new PDSCH code values.

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) values 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 start' of Group = 1. The PDSCH code used for TFCI(field 2) = 1, is given by the SF and code number = 'PDSCH code start' + 1. This continues, with unit increments in the value of TFC mapping to unit increments in code number up until the point that code number = 'PDSCH code stop'. The process continues in the same way for the next group with the TFCI(field 2) value used by the UE when constructing its mapping table starting at the largest value reached in the previous group plus one. In the event that 'PDSCH code start' = 'PDSCH code stop' (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 or codes for multicode. The PDSCH code specified in the first group applies for all values of TFCI(field 2) between 0 and the specified 'Max TFCI(field2)'. The PDSCH code specified in the second group applies for all values of TFCI(field 2) between the 'Max TFCI(field2) value' specified in the last group plus one and the specified 'Max TFCI(field2)' in the second group. The process continues in the same way for the following groups with the TFCI(field 2) value starting at the largest value reached in the previous group plus one.

Method #3 - Explicit

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

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

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

Void.

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

Void.

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. The reference point is the antenna connector.

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)	

9.2.2.39A   RSSI

The RSSI indicates the UL interference at a certain cell under CRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RSSI			INTEGER(0..621)	According to mapping in [4].

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

Void.

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

Void.

9.2.2.52 TGL

Void.

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)	

9.2.2.53A Transmission Gap Pattern Sequence Information

Defines the parameters for the 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 Identifer	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 in frames.
>TGPL2	O		Integer (1..144,…)	The duration of transmission gap pattern 2 in frames. If omitted, then TGPL2=TGPL1.
>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,…)	Defines if frame structure type 'A' or 'B' shall be used in downlink compressed mode.
>DeltaSIR1	M		Integer (0..30)	Delta in UL SIR target value to be set in the Node B 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 dB, Range 0-3dB

>DeltaSIRafter1	M		Integer (0..30)	Delta in UL SIR target value to be set in the Node B one frame after the compressed frames corresponding to the first transmission gap in the transmission gap pattern,. Step 0.1 dB, Range 0-3dB
>DeltaSIR2	O		Integer (0..30)	Delta in UL SIR target value to be set in the Node B 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 dB, Range 0-3dB
>DeltaSIRafter2	O		Integer (0..30)	Delta in UL SIR target value to be set in the Node B one frame after the compressed frames corresponding to the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Step 0.1 dB, Range 0-3dB

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 8.

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:

Void.

9.2.2.55 UL delta SIR

Void.

9.2.2.56 UL delta SIR after

Void.

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

Void.

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 [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

Indicates the maximum number of Midamble shifts to be used in a cell.

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 and burst type

This information element indicates burst type and midamble allocation.

The 256 chip midamble supports 3 different time shifts, the 512 chips midamble may support 8 or even 16 time shifts.

Three different midamble allocation schemes exist:

Default midamble: the midamble shift is selected by layer 1 depending on the associated channelisation code (DL and UL)

Common midamble: the midamble shift is chosen by layer 1 depending on the number of channelisation codes (possible in DL only)

UE specific midamble: a UE specific midamble is explicitly assigned (DL and UL)

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Burst Type				
>"Type 1"				
>>Midamble Allocation Mode	M		Enumerated (Default midamble, Common midamble, UE specific midamble)	
>>Midamble Shift	C-UE		Integer(0..15)	
>"Type 2"				
>>Midamble Allocation Mode	M		Enumerated (Default midamble, Common midamble, UE specific midamble)	
>>Midamble Shift	C-UE		INTEGER (0..5)	
>"Type 3"				UL only
>>Midamble Allocation Mode	M		Enumerated (Default midamble, UE specific midamble)	
>>Midamble Shift	C-UE		Integer(0..15)	
> "..."				

Condition	Explanation
C-UE	This information element is only sent when the value of the "Midamble Allocation Mode" IE is "UE-specific midamble".

9.2.3.8 Paging Indicator Length

The Paging Indicator Length indicates the number of symbols for Page Indication transmitted in one timeslot (see [19]).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Paging Indicator Length			ENUMERATED (2, 4, 8,…)	

9.2.3.9 PCCPCH Power

Primary CCPCH power is the power that shall be used for transmitting the P CCPCH in a cell. The P CCPCH power is the reference power in a TDD-cell. The reference point is the antenna connector.

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

The PRACH Midamble indicates if only the Basic Midamble Sequence or also the time-inverted Midamble Sequence is used.

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 [see 18].

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) [see 18].

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			ENUMERAT ED ((1/1), (2/1), (2/2), (4/1),…(4/4), (8/1), (8/8), (16/1)… (16/16) ,…)	

9.2.3.19A TDD DPCH Offset

The Offset represents the phase information for the allocation of a group of dedicated physical channels. The first range is used when a starting offset is not required and the TDD Physical channel offset for each DPCH in the CCTrCH shall be directly determined from the TDD DPCH Offset. The second range is used when a starting offset is required. The TDD DPCH Offset shall map to the CFN and the TDD Physical Channel Offet for each DPCH in this CCTrCH shall calculated by TDD DPCH Offset *mod* Repetition period, see [18].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD DPCH Offset			CHOICE INTEGER (0..63) or INTEGER (0..255)	

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) [see 18].

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			ENUMERAT ED (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

Defines if Transmission Diversity on DCHs to be applied in a cell (see[19]).

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

9.2.3.26A UL Timeslot ISCP

UL Timeslot ISCP is the measured interference in a uplink timeslot at the Node B, see ref. [5].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL Timeslot ISCP			INTEGER (0..81)	According to mapping in [5].

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 10.3.6.

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 Elementary Procedure Definitions

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

```
NBAP-PDU-Discriptions {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-PDU-Descriptions (0) }


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,
        ResetRequest,
        ResetResponse,
        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-reset,
    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                                       |
    reset                                                   |
    synchronisedRadioLinkReconfigurationPreparationFDD      |
    synchronisedRadioLinkReconfigurationPreparationTDD      |
    unSynchronisedRadioLinkReconfigurationFDD               |
    unSynchronisedRadioLinkReconfigurationTDD               |
    dedicatedMeasurementInitiation                          |
    physicalSharedChannelReconfiguration                    ,
    ...
}

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

-- *** Reset ***
reset NBAP-ELEMENTARY-PROCEDURE ::= {

        INITIATING MESSAGE        ResetRequest

        SUCCESSFUL OUTCOME        ResetResponse

        MESSAGE DISCRIMINATOR     common

        PROCEDURE ID              { procedureCode id-reset, 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   PDU Definitions

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


NBAP-PDU-Contents {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-PDU-Contents (1) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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


IMPORTS
    Active-Pattern-Sequence-Information,
    AddorDeleteIndicator,
    AICH-Power,
    AICH-TransmissionTiming,
    APPreambleSignature,
    APSubChannelNumber,
    AvailabilityStatus,
    BCCH-ModificationTime,
    BindingID,
    BlockingPriorityIndicator,
    BlockSTTD-Indicator,
    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,
DiversityControlField,
DiversityMode,
DL-DPCH-SlotFormat,
DL-or-Global-CapacityCredit,
DL-Power,
DLPowerAveragingWindowSize,
DL-ScramblingCode,
DL-TimeslotISCP,
DL-TPC-Pattern01Count,
DPCH-ID,
DSCH-ID,
FDD-DL-ChannelisationCodeNumber,
FDD-S-CCPCH-Offset,
FDD-TPC-DownlinkStepSize,
FirstRLS-Indicator,
FrameHandlingPriority,
FrameOffset,
IB-OC-ID,
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,
MidambleShiftAndBurstType,
```

```
    MinimumDL-PowerCapability,
    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,
    PICH-Power,
    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,
    RetentionPriority,
    RL-Set-ID,
    RL-ID,
    RSSI-Value,
    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-DPCHOffset,
        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-ScramblingCode,
        UL-TimeslotISCP-Value,
        UL-TimeslotISCP-Value-IncrDecrThres,
        USCH-ID
FROM NBAP-IEs

        PrivateIE-Container{},
        ProtocolExtensionContainer{},
        ProtocolIE-Container{},
        ProtocolIE-Single-Container{},
        ProtocolIE-ContainerList{},
        NBAP-PRIVATE-IES,
        NBAP-PROTOCOL-IES,
        NBAP-PROTOCOL-EXTENSION
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-CommunicationContextInfoItem-Reset,
                id-CommunicationContextItem-Reset,
                id-CommunicationControlPortID,
                id-CommunicationControlPortInfoItem-Reset,
```

```
        id-CommunicationControlPortItem-Reset,
        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-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-DeleteItem-RL-ReconfPrepFDD,
           id-DSCH-DeleteItem-RL-ReconfRqstFDD,
           id-DSCH-DeleteList-RL-ReconfPrepFDD,
           id-DSCH-ID,
           id-DSCH-information-AddList-RL-ReconfPrepTDD,
           id-DSCH-Information-DeleteList-RL-ReconfPrepTDD,
           id-DSCH-Information-ModifyList-RL-ReconfPrepTDD,
           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-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-ResetIndicator,
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-TFCI2-Bearer-Information-RL-SetupRqstFDD,
      id-TFCI2-BearerInformationResponse-RL-SetupRspFDD,
      id-TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD,
      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-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,
    maxCommunicationContext,
    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-Single-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-Single-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-Single-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                                 PICH-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-Single-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-Single-Container {{ RACH-ParametersIE-CTCH-SetupRqstFDD }}
```

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```
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                              AICH-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-Single-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                           AICH-Power,
```

```
    cSICH-Power                                     AICH-Power,
    sTTD-Indicator                                  STTD-Indicator,
    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                                  AICH-Power,
    sTTD-Indicator                                  STTD-Indicator,
    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-Single-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,
    tFCI-Coding                             TFCI-Coding,
    punctureLimit                           PunctureLimit,
    secondaryCCPCH-parameterList            Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD,
    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-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs}}   OPTIONAL,
    ...
}

Secondary-CCPCHItem-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Secondary-CCPCH-parameterList-CTCH-SetupRqstTDD ::= ProtocolIE-Single-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,
    midambleShiftandBurstType               MidambleShiftAndBurstType,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    s-CCPCH-Power                           DL-Power,
    iE-Extensions                           ProtocolExtensionContainer { { Secondary-CCPCH-parameterItem-CTCH-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

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

FACH-ParametersList-CTCH-SetupRqstTDD ::= ProtocolIE-Single-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,
    cCTrCH-ID                          CCTrCH-ID,
    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-Single-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,
    cCTrCH-ID                          CCTrCH-ID,
    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,
    midambleshiftAndBurstType          MidambleShiftAndBurstType,
    tdd-PhysicalChannelOffset          TDD-PhysicalChannelOffset,
    repetitionPeriod                   RepetitionPeriod,
    repetitionLength                   RepetitionLength,
    pagingIndicatorLength              PagingIndicatorLength,
    pICH-Power                         PICH-Power,
    iE-Extensions                      ProtocolExtensionContainer  { { PICH-Parameters-CTCH-SetupRqstTDD-ExtIEs} }     OPTIONAL,
```

```
    ...
}

PICH-Parameters-CTCH-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PRACH-CTCH-SetupRqstTDD ::= ProtocolIE-Single-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,
    tFCS                                    TFCS,
    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-Single-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,
    uL-TransportFormatSet                   TransportFormatSet,
    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,
    ...
}
```

```
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-Single-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-Single-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-Single-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-Single-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 {
    commonPhysicalChannelID         CommonPhysicalChannelID,
    pICH-Power                              PICH-Power,
    iE-Extensions                           ProtocolExtensionContainer  { { PICH-ParametersItem-CTCH-ReconfRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

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

    ...
}

PRACHList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-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-Single-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-Single-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 {
    commonPhysicalChannelID            CommonPhysicalChannelID,
    aICH-Power                         AICH-Power,
    iE-Extensions                      ProtocolExtensionContainer  { { AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

AICH-ParametersItemIE-CTCH-ReconfRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

CPCHList-CTCH-ReconfRqstFDD ::= ProtocolIE-Single-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 {
    cPCH-ParametersList-CTCH-ReconfRqstFDD       CPCH-ParametersList-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-Single-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-Single-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 {
    commonPhysicalChannelID           CommonPhysicalChannelID,
```

```
    aP-AICH-Power                           AICH-Power,
    cSICH-Power                             AICH-Power      OPTIONAL,
    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-Single-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 {
    commonPhysicalChannelID          CommonPhysicalChannelID,
    cDCA-ICH-Power                   AICH-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-Single-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                      PICH-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,
```

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```
    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-Single-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,
    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-Single-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-Single-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-Single-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-Single-Container {{ S-CPICH-InformationItemIE-AuditRsp }}
```

```
S-CPICH-InformationItemIE-AuditRsp NBAP-PROTOCOL-IES ::= {
    { ID id-S-CPICH-InformationItem-AuditRsp   CRITICALITY ignore   TYPE S-CPICH-InformationItem-AuditRsp   PRESENCE mandatory }
}

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

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

P-CCPCH-Information-AuditRsp ::= ProtocolIE-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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 ::= {
    ...
}

SCH-Information-AuditRsp ::= ProtocolIE-Single-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-Single-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-Single-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,
    minSpreadingFactor                  MinSpreadingFactor             OPTIONAL,
    minimumDL-PowerCapability           MinimumDL-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-Single-Container {{ CellIE-CM-Rqst }}

CellIE-CM-Rqst NBAP-PROTOCOL-IES ::= {
    { ID id-CellItem-CM-Rqst   CRITICALITY reject   TYPE CellItem-CM-Rqst      PRESENCE mandatory }
}

CellItem-CM-Rqst ::= SEQUENCE {
    c-ID                        C-ID,
    timeSlot                    TimeSlot    OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { { CellItem-CM-Rqst-ExtIEs} }   OPTIONAL,
    ...
}

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

RACH-CM-Rqst ::= ProtocolIE-Single-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-Single-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 optional
    }|
    { 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-Single-Container {{ CellIE-CM-Rsp }}

CellIE-CM-Rsp NBAP-PROTOCOL-IES ::= {
    { ID id-CellItem-CM-Rsp   CRITICALITY ignore   TYPE CellItem-CM-Rsp      PRESENCE mandatory }
}

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

CellItem-CM-Rsp-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RACH-CM-Rsp ::= ProtocolIE-Single-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-Single-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-Single-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-Single-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-Single-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 {
    measurementAvailabilityIndicator    MeasurementAvailabilityIndicator-CommonMeasurementReport,
    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-Single-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-Single-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-Synchronisation-Configuration-Cell-SetupRqst    CRITICALITY    reject       TYPE  Synchronisation-Configuration-Cell-SetupRqst
       PRESENCE    mandatory   }|
    { ID    id-DL-TPC-Pattern01Count                           CRITICALITY    reject        TYPE  DL-TPC-Pattern01Count
    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-Single-Container{{ SecondaryCPICH-
InformationItemIE-Cell-SetupRqstFDD }}

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

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

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

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

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

```
    ...
}

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

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

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-Synchronisation-Configuration-Cell-SetupRqst  CRITICALITY    reject    TYPE Synchronisation-Configuration-Cell-SetupRqst
    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-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-Single-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-Single-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-Single-Container {{ Case2IE-Cell-SetupRqstTDD }}

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

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

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


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

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

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

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

```
}

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Synchronisation-Configuration-Cell-ReconfRqst ::= SEQUENCE {
    n-INSYNC-IND          N-INSYNC-IND,
    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-Single-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},
    ...
}
```

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

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```
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,
    ...
}

No-Failure-ResourceStatusInd ::= ProtocolIE-Single-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 {
```

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```
    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-Single-Container {{ Local-Cell-
InformationItemIE-ResourceStatusInd }}

Local-Cell-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-Local-Cell-InformationItem-ResourceStatusInd   CRITICALITY ignore   TYPE Local-Cell-InformationItem-ResourceStatusInd     PRESENCE
mandatory } }
}

Local-Cell-InformationItem-ResourceStatusInd ::= SEQUENCE {
    local-CellID                                Local-Cell-ID,
    addorDeleteIndicator                        AddorDeleteIndicator,
    dl-or-global-capacityCredit                 DL-or-Global-CapacityCredit     OPTIONAL,
    -- This IE is present only if "AddorDeleteIndicator" equals add
    ul-capacityCredit                           UL-CapacityCredit       OPTIONAL,
    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       OPTIONAL,
    -- This IE is present only if "AddorDeleteIndicator" equals add
    minSpreadingFactor                          MinSpreadingFactor              OPTIONAL,
    -- This IE is present only if "AddorDeleteIndicator" equals add
    minimumDL-PowerCapability                   MinimumDL-PowerCapability,
    iE-Extensions                               ProtocolExtensionContainer { { Local-Cell-InformationItem-ResourceStatusInd-ExtIEs} }OPTIONAL,
    ...
}

Local-Cell-InformationItem-ResourceStatusInd-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
ServiceImpacting-ResourceStatusInd ::= ProtocolIE-Single-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,
    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-Single-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,
    minSpreadingFactor                    MinSpreadingFactor             OPTIONAL,
    minimumDL-PowerCapability             MinimumDL-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-Single-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-Single-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                        OPTIONAL,
    availabilityStatus                      AvailabilityStatus                              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 { { Cell-InformationItem-ResourceStatusInd-ExtIEs} } OPTIONAL,
    ...
}
```

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

P-SCH-Information-ResourceStatusInd ::= ProtocolIE-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-Container {{ S-CCPCH-InformationItemIE-
ResourceStatusInd }}

S-CCPCH-InformationItemIE-ResourceStatusInd NBAP-PROTOCOL-IES ::= {
    { ID id-S-CCPCH-InformationItem-ResourceStatusInd   CRITICALITY ignore  TYPE S-CCPCH-InformationItem-ResourceStatusInd     PRESENCE mandatory }
}

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

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

PCH-Information-ResourceStatusInd ::= ProtocolIE-Single-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-Single-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,
```

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```
    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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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,
    iB-OC-ID                IB-OC-ID,
    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-Single-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-Single-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,
    ...
}
```

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```
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-TFCI2-Bearer-Information-RL-SetupRqstFDD      CRITICALITY ignore            TYPE  TFCI2-BearerInformationResponse-RL-SetupRspFDD
    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,
    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,
    ul-TransportFormatSet               TransportFormatSet,
    dl-TransportFormatSet               TransportFormatSet,
    retentionPriority                   RetentionPriority,
    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,
    transportFormatSet                TransportFormatSet,
    retentionPriority                 RetentionPriority,
    frameHandlingPriority             FrameHandlingPriority,
    toAWS                             ToAWS,
    toAWE                             ToAWE,
    iE-Extensions                     ProtocolExtensionContainer { { DSCH-InformationItem-RL-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

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

TFCI2-Bearer-Information-RL-SetupRqstFDD ::= SEQUENCE {
    toAWS                             ToAWS,
    toAWE                             ToAWE,
    iE-Extensions                     ProtocolExtensionContainer { { TFCI2-Bearer-Information-RL-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

TFCI2-Bearer-Information-RL-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF
    ProtocolIE-Single-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-DL-CCTrCH-InformationList-RL-SetupRqstTDD        CRITICALITY notify        TYPE DL-CCTrCH-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-Single-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,
    uL-DPCH-Information                 UL-DPCH-Information-RL-SetupRqstTDD    OPTIONAL,
    iE-Extensions                      ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

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

UL-DPCH-Information-RL-SetupRqstTDD ::= ProtocolIE-Single-Container{{ UL-DPCH-InformationIE-RL-SetupRqstTDD }}

UL-DPCH-InformationIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationList-RL-SetupRqstTDD    CRITICALITY notify  TYPE UL-DPCH-InformationItem-RL-SetupRqstTDD    PRESENCE mandatory   }
}

UL-DPCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    tdd-DPCHOffset                      TDD-DPCHOffset,
    uL-Timeslot-InformationList-RL-SetupRqstTDD          UL-Timeslot-InformationList-RL-SetupRqstTDD,
    iE-Extensions                       ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

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

UL-Timeslot-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationItem-RL-SetupRqstTDD
```

```
UL-Timeslot-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tFCI-Presence                           TFCI-Presence,
    uL-Code-InformationList-RL-SetupRqstTDD           UL-Code-InformationList-RL-SetupRqstTDD,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationItem-RL-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

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

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

UL-Code-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-InformationItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

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

DL-CCTrCH-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-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,
    cCTrCH-TPCList                          CCTrCH-TPCList-RL-SetupRqstTDD,
    dL-DPCH-Information                     DL-DPCH-Information-RL-SetupRqstTDD    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

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

CCTrCH-TPCList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD
```

ETSI

```
CCTrCH-TPCItem-RL-SetupRqstTDD   ::= SEQUENCE {
    cCTrCH-ID                             CCTrCH-ID,
    iE-Extensions                         ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

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

DL-DPCH-Information-RL-SetupRqstTDD ::= ProtocolIE-Single-Container{{ DL-DPCH-InformationIE-RL-SetupRqstTDD }}

DL-DPCH-InformationIE-RL-SetupRqstTDD NBAP-PROTOCOL-IES ::= {
    { ID id-DL-DPCH-InformationList-RL-SetupRqstTDD    CRITICALITY notify  TYPE DL-DPCH-InformationItem-RL-SetupRqstTDD    PRESENCE mandatory   }
}

DL-DPCH-InformationItem-RL-SetupRqstTDD  ::= SEQUENCE {
    repetitionPeriod                      RepetitionPeriod,
    repetitionLength                      RepetitionLength,
    tdd-DPCHOffset                        TDD-DPCHOffset,
    dL-Timeslot-InformationList-RL-SetupRqstTDD        DL-Timeslot-InformationList-RL-SetupRqstTDD,
    iE-Extensions                         ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

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

DL-Timeslot-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationItem-RL-SetupRqstTDD

DL-Timeslot-InformationItem-RL-SetupRqstTDD  ::= SEQUENCE {
    timeSlot                              TimeSlot,
    midambleShiftAndBurstType             MidambleShiftAndBurstType,
    tFCI-Presence                         TFCI-Presence,
    dL-Code-InformationList-RL-SetupRqstTDD            DL-Code-InformationList-RL-SetupRqstTDD,
    iE-Extensions                         ProtocolExtensionContainer { { DL-Timeslot-InformationItem-RL-SetupRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-RL-SetupRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
DL-Code-InformationList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-Code-InformationItem-RL-SetupRqstTDD

DL-Code-InformationItem-RL-SetupRqstTDD  ::= SEQUENCE {
    dPCH-ID                               DPCH-ID,
    tdd-ChannelisationCode                TDD-ChannelisationCode,
    iE-Extensions                         ProtocolExtensionContainer { { DL-Code-InformationItem-RL-SetupRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

DL-Code-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,
    retentionPriority                   RetentionPriority,
    frameHandlingPriority               FrameHandlingPriority       OPTIONAL,
    qE-Selector                         QE-Selector                 OPTIONAL,
    -- This IE is present only if DCH is part of set of Coordinated DCHs
    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,
    retentionPriority                   RetentionPriority,
    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,
    retentionPriority                   RetentionPriority,
    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-TFCI2-BearerInformationResponse-RL-SetupRspFDD  CRITICALITY ignore       TYPE TFCI2-BearerInformationResponse-RL-SetupRspFDD
    PRESENCE    optional    }|
    { ID    id-CriticalityDiagnostics                          CRITICALITY ignore       TYPE CriticalityDiagnostics                    PRESENCE
    optional    },
    ...
}


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


RL-InformationResponseList-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-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,
    rSSI                                RSSI-Value,
    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-Single-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-Single-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-Single-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 ::= {
    ...
}

TFCI2-BearerInformationResponse-RL-SetupRspFDD ::= SEQUENCE {
    bindingID                                   BindingID,
    transportLayerAddress                       TransportLayerAddress,
    iE-Extensions                               ProtocolExtensionContainer { { TFCI2-BearerInformationResponse-RL-SetupRspFDD-ExtIEs} }
    OPTIONAL,
    ...
}

TFCI2-BearerInformationResponse-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,
    iSCP                          UL-TimeslotISCP-Value,
    iE-Extensions                 ProtocolExtensionContainer { { UL-InterferenceItem-RL-SetupRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-InterferenceItem-RL-SetupRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-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-Single-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-Single-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    conditional }|
    -- This IE is present if at least one of the radio links has been successfully set up
    { 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-Single-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-Single-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-Single-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-Single-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,
    rSSI                                        RSSI-Value,
    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,
    tFCI2-BearerInformationResponse             TFCI2-BearerInformationResponse-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-Single-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-Single-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-Single-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 ::= {
    ...
}

TFCI2-BearerInformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
    bindingID                                       BindingID,
    transportLayerAddress                           TransportLayerAddress,
    iE-Extensions                                   ProtocolExtensionContainer { { TFCI2-BearerInformationResponse-RL-SetupFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

TFCI2-BearerInformationResponse-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-Single-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-Single-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-Single-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-Compressed-Mode-Deactivation-Flag-RL-AdditionRqstFDD        CRITICALITY reject          TYPE Compressed-Mode-Deactivation-Flag-RL-
AdditionRqstFDD  PRESENCE optional }|
    { 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-Single-Container {{ RL-InformationItemIE-RL-
AdditionRqstFDD}}

RL-InformationItemIE-RL-AdditionRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationItem-RL-AdditionRqstFDD            CRITICALITY    notify        TYPE RL-InformationItem-RL-AdditionRqstFDD
    PRESENCE    mandatory}
}

RL-InformationItem-RL-AdditionRqstFDD ::= SEQUENCE {
    rL-ID                               RL-ID,
    c-ID                                C-ID,
    frameOffset                         FrameOffset,
    chipOffset                          ChipOffset,
    diversityControlField               DiversityControlField,
    dl-CodeInformationList              DL-CodeInformationList-RL-AdditionRqstFDD,
    initialDL-TransmissionPower         DL-Power                        OPTIONAL,
    maximumDL-Power                     DL-Power                        OPTIONAL,
    minimumDL-Power                     DL-Power                        OPTIONAL,
    sSDT-CellIdentity                   SSDT-Cell-Identity              OPTIONAL,
    transmitDiversityIndicator          TransmitDiversityIndicator      OPTIONAL,
    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-DL-CCTrCH-InformationList-RL-AdditionRqstTDD       CRITICALITY    reject       TYPE DL-CCTrCH-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 ::= {
    ...
}

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,
    uL-DPCH-Information                      UL-DPCH-InformationList-RL-AdditionRqstTDD    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }   OPTIONAL,
```

```
    ...
}

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

UL-DPCH-InformationList-RL-AdditionRqstTDD ::= ProtocolIE-Single-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 {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-InformationList-RL-AdditionRqstTDD          UL-Timeslot-InformationList-RL-AdditionRqstTDD,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

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

UL-Timeslot-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationItem-RL-AdditionRqstTDD

UL-Timeslot-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType                MidambleShiftAndBurstType,
    tFCI-Presence                           TFCI-Presence,
    uL-Code-InformationList-RL-AdditionRqstTDD          UL-Code-InformationList-RL-AdditionRqstTDD,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationItem-RL-AdditionRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-Timeslot-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-Code-InformationItem-RL-AdditionRqstTDD

UL-Code-InformationItem-RL-AdditionRqstTDD ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-InformationItem-RL-AdditionRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

UL-Code-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,
    dL-DPCH-Information                           DL-DPCH-InformationList-RL-AdditionRqstTDD      OPTIONAL,
    iE-Extensions                                ProtocolExtensionContainer { { DL-CCTrCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }   OPTIONAL,
    ...
}

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

DL-DPCH-InformationList-RL-AdditionRqstTDD ::= ProtocolIE-Single-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 {
    repetitionPeriod                             RepetitionPeriod,
    repetitionLength                             RepetitionLength,
    tdd-DPCHOffset                               TDD-DPCHOffset,
    dL-Timeslot-InformationList-RL-AdditionRqstTDD        DL-Timeslot-InformationList-RL-AdditionRqstTDD,
    iE-Extensions                                ProtocolExtensionContainer { { DL-DPCH-InformationItem-RL-AdditionRqstTDD-ExtIEs} }      OPTIONAL,
    ...
}

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

DL-Timeslot-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-Timeslot-InformationItem-RL-AdditionRqstTDD

DL-Timeslot-InformationItem-RL-AdditionRqstTDD   ::= SEQUENCE {
    timeSlot                              TimeSlot,
    midambleShiftAndBurstType            MidambleShiftAndBurstType,
    tFCI-Presence                        TFCI-Presence,
    dL-Code-InformationList-RL-AdditionRqstTDD           DL-Code-InformationList-RL-AdditionRqstTDD,
    iE-Extensions                        ProtocolExtensionContainer { { DL-Timeslot-InformationItem-RL-AdditionRqstTDD-ExtIEs} }     OPTIONAL,
    ...
}

DL-Timeslot-InformationItem-RL-AdditionRqstTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
DL-Code-InformationList-RL-AdditionRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-Code-InformationItem-RL-AdditionRqstTDD

DL-Code-InformationItem-RL-AdditionRqstTDD   ::= SEQUENCE {
    dPCH-ID                              DPCH-ID,
```

```
    tdd-ChannelisationCode                     TDD-ChannelisationCode,
    iE-Extensions                              ProtocolExtensionContainer { { DL-Code-InformationItem-RL-AdditionRqstTDD-ExtIEs} }    OPTIONAL,
    ...
}

DL-Code-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-Single-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,
    rSSI                                        RSSI-Value,
    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-Single-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-Single-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,
    iSCP                         UL-TimeslotISCP-Value,
    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-Single-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-Single-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-Single-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-Single-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
```

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```
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-Single-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-Single-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-Single-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-Single-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,
    rSSI                                         RSSI-Value,
    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,
    ...
}

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-Single-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-Single-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-Single-Container {{ GeneralCauseIE-RL-AdditionFailureTDD }}

GeneralCauseIE-RL-AdditionFailureTDD NBAP-PROTOCOL-IES ::= {
    { ID id-GeneralCauseItem-RL-AdditionFailureTDD     CRITICALITY ignore  TYPE GeneralCauseItem-RL-AdditionFailureTDD     PRESENCE mandatory }
}
```

```
GeneralCauseItem-RL-AdditionFailureTDD ::= SEQUENCE {
    cause                           Cause,
    iE-Extensions                   ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs} }    OPTIONAL,
    ...
}

GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RLSpecificCauseList-RL-AdditionFailureTDD ::= ProtocolIE-Single-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-Single-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-TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD    CRITICALITY    reject    TYPE TFCI2-BearerSpecificInformation-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,
    diversityMode                                   DiversityMode                       OPTIONAL,
    sSDT-CellIDLength                               SSDT-CellID-Length                  OPTIONAL,
    s-FieldLength                                   S-FieldLength                       OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} }    OPTIONAL,
    ...
```

```
}

UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs  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,
    retentionPriority                           RetentionPriority         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,
    retentionPriority                   RetentionPriority,
    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-Single-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,
    retentionPriority                       RetentionPriority           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-Single-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,
    retentionPriority                       RetentionPriority,
    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-Single-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 ::= {
    ...
}

TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD ::= CHOICE {
```

```
    addOrModify              AddOrModify-TFCI2-RL-ReconfPrepFDD,
    delete                   NULL,
    ...
}

AddOrModify-TFCI2-RL-ReconfPrepFDD ::= SEQUENCE {
    toAWS                             ToAWS,
    toAWE                             ToAWE,
    iE-Extensions                     ProtocolExtensionContainer { { AddOrModify-TFCI2-RL-ReconfPrepFDD-ExtIEs} }   OPTIONAL,
    ...
}

AddOrModify-TFCI2-RL-ReconfPrepFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-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
    transmitDiversityIndicator                TransmitDiversityIndicator                 OPTIONAL,
    -- This IE is present if Diversity Mode IE in UL DPCH Information group is present, unless it is equal to "none"
    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,
    ...
}
```

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```
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,
    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-Single-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-InformationAddItem-RL-ReconfPrepTDD     PRESENCE
mandatory }
}

UL-DPCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-DPCHOffset                          TDD-DPCHOffset,
    uL-Timeslot-InformationAddList-RL-ReconfPrepTDD         UL-Timeslot-InformationAddList-RL-ReconfPrepTDD,
    iE-Extensions                           ProtocolExtensionContainer { { UL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

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

UL-Timeslot-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationAddItem-RL-ReconfPrepTDD

UL-Timeslot-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType,
    tFCI-Presence                           TFCI-Presence,
    uL-Code-InformationAddList-RL-ReconfPrepTDD            UL-Code-InformationAddList-RL-ReconfPrepTDD,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-Timeslot-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

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```
    ...
}

UL-Code-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-Code-InformationAddItem-RL-ReconfPrepTDD

UL-Code-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID                             DPCH-ID,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    iE-Extensions                       ProtocolExtensionContainer { { UL-Code-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-Code-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-Single-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-AddItem-RL-ReconfPrepTDD
    PRESENCE mandatory } }
}

UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                    RepetitionPeriod,
    repetitionLength                    RepetitionLength,
    tdd-DPCHOffset                      TDD-DPCHOffset,
    uL-Timeslot-InformationModify-AddList-RL-ReconfPrepTDD        UL-Timeslot-InformationModify-AddList-RL-ReconfPrepTDD,
    iE-Extensions                       ProtocolExtensionContainer { { UL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

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

```
    ...
}

UL-Timeslot-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationModify-AddItem-RL-
ReconfPrepTDD

UL-Timeslot-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlot                               TimeSlot,
    midambleShiftAndBurstType              MidambleShiftAndBurstType,
    tFCI-Presence                          TFCI-Presence,
    uL-Code-InformationModify-AddList-RL-ReconfPrepTDD         UL-Code-InformationModify-AddList-RL-ReconfPrepTDD,
    iE-Extensions                          ProtocolExtensionContainer { { UL-Timeslot-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

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

UL-Code-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF UL-Code-InformationModify-AddItem-RL-ReconfPrepTDD

UL-Code-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID                                DPCH-ID,
    tdd-ChannelisationCode                 TDD-ChannelisationCode,
    iE-Extensions                          ProtocolExtensionContainer { { UL-Code-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

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

UL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Single-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-ModifyItem-RL-
ReconfPrepTDD        PRESENCE mandatory }
}

UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                       RepetitionPeriod   OPTIONAL,
    repetitionLength                       RepetitionLength   OPTIONAL,
    tdd-DPCHOffset                         TDD-DPCHOffset     OPTIONAL,
    uL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD        UL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD     OPTIONAL,
    iE-Extensions                          ProtocolExtensionContainer { { UL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

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

```
UL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationModify-ModifyItem-RL-
ReconfPrepTDD

UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType       OPTIONAL,
    tFCI-Presence                           TFCI-Presence       OPTIONAL,
    uL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD           UL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

UL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Single-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,
    cCTrCH-TPCList                              CCTrCH-TPCAddList-RL-ReconfPrepTDD,
    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 ::= {
    ...
}

CCTrCH-TPCAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCAddItem-RL-ReconfPrepTDD

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

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

DL-DPCH-InformationAddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-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-InformationAddItem-RL-ReconfPrepTDD     PRESENCE
mandatory }
}

DL-DPCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
```

```
    tdd-DPCHOffset                              TDD-DPCHOffset,
    dL-Timeslot-InformationAddList-RL-ReconfPrepTDD         DL-Timeslot-InformationAddList-RL-ReconfPrepTDD,
    iE-Extensions                              ProtocolExtensionContainer { { DL-DPCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

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

DL-Timeslot-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-Timeslot-InformationAddItem-RL-ReconfPrepTDD

DL-Timeslot-InformationAddItem-RL-ReconfPrepTDD  ::= SEQUENCE {
    timeSlot                            TimeSlot,
    midambleShiftAndBurstType           MidambleShiftAndBurstType,
    tFCI-Presence                       TFCI-Presence,
    dL-Code-InformationAddList-RL-ReconfPrepTDD         DL-Code-InformationAddList-RL-ReconfPrepTDD,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }    OPTIONAL,
    ...
}

DL-Timeslot-InformationAddItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
DL-Code-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-Code-InformationAddItem-RL-ReconfPrepTDD

DL-Code-InformationAddItem-RL-ReconfPrepTDD  ::= SEQUENCE {
    dPCH-ID                             DPCH-ID,
    tdd-ChannelisationCode              TDD-ChannelisationCode,
    iE-Extensions                       ProtocolExtensionContainer { { DL-Code-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }     OPTIONAL,
    ...
}

DL-Code-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,
    cCTrCH-TPCList                       CCTrCH-TPCModifyList-RL-ReconfPrepTDD   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 ::= {
    ...
}

CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD

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

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

DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD ::= ProtocolIE-Single-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-AddItem-RL-ReconfPrepTDD
    PRESENCE mandatory }
}

DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                      RepetitionPeriod,
    repetitionLength                      RepetitionLength,
    tdd-DPCHOffset                        TDD-DPCHOffset,
    dL-Timeslot-InformationAddModify-AddList-RL-ReconfPrepTDD      DL-Timeslot-InformationModify-AddList-RL-ReconfPrepTDD,
    iE-Extensions                         ProtocolExtensionContainer { { DL-DPCH-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

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

DL-Timeslot-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-Timeslot-InformationModify-AddItem-RL-
ReconfPrepTDD

DL-Timeslot-InformationModify-AddItem-RL-ReconfPrepTDD   ::= SEQUENCE {
    timeSlot                              TimeSlot,
    midambleShiftAndBurstType             MidambleShiftAndBurstType,
    tFCI-Presence                         TFCI-Presence,
    dL-Code-InformationModify-AddList-RL-ReconfPrepTDD            DL-Code-InformationModify-AddList-RL-ReconfPrepTDD,
    iE-Extensions                         ProtocolExtensionContainer { { DL-Timeslot-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

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

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```
DL-Code-InformationModify-AddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDPCHs)) OF DL-Code-InformationModify-AddItem-RL-ReconfPrepTDD


DL-Code-InformationModify-AddItem-RL-ReconfPrepTDD   ::= SEQUENCE {
    dPCH-ID                              DPCH-ID,
    tdd-ChannelisationCode               TDD-ChannelisationCode,
    iE-Extensions                        ProtocolExtensionContainer { { DL-Code-InformationModify-AddItem-RL-ReconfPrepTDD-ExtIEs} }   OPTIONAL,
    ...
}


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


DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD ::= ProtocolIE-Single-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-ModifyItem-RL-
ReconfPrepTDD       PRESENCE mandatory }
}


DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    repetitionPeriod                     RepetitionPeriod           OPTIONAL,
    repetitionLength                     RepetitionLength           OPTIONAL,
    tdd-DPCHOffset                       TDD-DPCHOffset             OPTIONAL,
    dL-Timeslot-InformationAddModify-ModifyList-RL-ReconfPrepTDD     DL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD       OPTIONAL,
    iE-Extensions                        ProtocolExtensionContainer { { DL-DPCH-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}


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


DL-Timeslot-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfDLTSs)) OF DL-Timeslot-InformationModify-ModifyItem-RL-
ReconfPrepTDD


DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
    timeSlot                             TimeSlot,
    midambleShiftAndBurstType            MidambleShiftAndBurstType          OPTIONAL,
    tFCI-Presence                        TFCI-Presence          OPTIONAL,
    dL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD            DL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD       OPTIONAL,
    iE-Extensions                        ProtocolExtensionContainer { { DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}


DL-Timeslot-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
DL-Code-InformationModify-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD

DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD    ::= SEQUENCE {
```

```
    dPCH-ID                                 DPCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-InformationModify-ModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}


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


DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD ::= ProtocolIE-Single-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,
    retentionPriority                       RetentionPriority           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,
    retentionPriority                       RetentionPriority,
    frameHandlingPriority                   FrameHandlingPriority,
    qE-Selector                             QE-Selector         OPTIONAL,
    -- This IE is present only if DCH is part of set of Coordinated DCHs
```

```
    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,
    retentionPriority                          RetentionPriority     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,
    retentionPriority                          RetentionPriority,
    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,
    retentionPriority                    RetentionPriority       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,
    retentionPriority                    RetentionPriority,
    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,
    ...
}
```

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```
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-Single-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,
```

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```
    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,
    tFCI2-BearerInformationResponse                   TFCI2-BearerInformationResponse-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-Single-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-Single-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-Single-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 ::= {
    ...
}

TFCI2-BearerInformationResponse-RL-ReconfReady ::= SEQUENCE {
    bindingID                               BindingID,
    transportLayerAddress                   TransportLayerAddress,
    iE-Extensions                           ProtocolExtensionContainer { { TFCI2-BearerInformationResponse-RL-ReconfReady-ExtIEs } }
    OPTIONAL,
    ...
}

TFCI2-BearerInformationResponse-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-Single-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-Single-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-Single-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}
}
```

ETSI

```
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   },
    ...
}
```

ETSI

```
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-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,
    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,
    retentionPriority                   RetentionPriority       OPTIONAL,
    frameHandlingPriority               FrameHandlingPriority   OPTIONAL,
    iE-Extensions                       ProtocolExtensionContainer { { DCH-ModifySpecificItem-RL-ReconfRqstFDD-ExtIEs} }    OPTIONAL,
    ...

}

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,
    retentionPriority                       RetentionPriority,
    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 ::= {
    ...
}

RL-InformationList-RL-ReconfRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-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,
    ...
}
```

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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-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-Single-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-Single-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-Single-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-Single-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,
    retentionPriority                            RetentionPriority              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,
    retentionPriority                     RetentionPriority,
    frameHandlingPriority                 FrameHandlingPriority,
    qE-Selector                           QE-Selector          OPTIONAL,
    -- This IE is present only if DCH is part of set of Coordinated DCHs
    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 ::= {
        ...
}

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,
        ...
}

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-Single-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,
    iE-Extensions                            ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfRsp-ExtIEs} }      OPTIONAL,
    ...
}

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

DCH-InformationResponseList-RL-ReconfRsp::= ProtocolIE-Single-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 ::= {
    ...
```

```
}


-- *************************************************************
--
-- 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-Single-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-Single-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,
    ...
}
```

```
RL-DM-Rqst ::= ProtocolIE-Single-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-Single-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-Single-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-Single-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-Single-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
    optional    } |
    { 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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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
--
-- ************************************************************

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-Single-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 {
```

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```
    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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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-Single-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
--
-- ****************************************************************

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-SFN                               CRITICALITY    reject      TYPE    SFN                                     PRESENCE
    optional} |
    { 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    },
    ...
}
```

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```
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,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

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

PDSCH-Information-AddList-PSCH-ReconfRqst ::= ProtocolIE-Single-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-AddItem-PSCH-ReconfRqst       PRESENCE
    mandatory}
}

PDSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod,
    repetitionLength                        RepetitionLength,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset,
    dL-Timeslot-InformationAddList-PSCH-ReconfRqst          DL-Timeslot-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

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

DL-Timeslot-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationAddItem-PSCH-ReconfRqst

DL-Timeslot-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                        TimeSlot,
    midambleShiftAndBurstType       MidambleShiftAndBurstType,
    tFCI-Presence                   TFCI-Presence,
    dL-Code-InformationAddList-PSCH-ReconfRqst          DL-Code-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                   ProtocolExtensionContainer { { DL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
    ...
}

DL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF DL-Code-InformationAddItem-PSCH-ReconfRqst
```

```
DL-Code-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                                PDSCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

DL-Code-InformationAddItem-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,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

PDSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

PDSCH-Information-ModifyList-PSCH-ReconfRqst ::= ProtocolIE-Single-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-ModifyItem-PSCH-ReconfRqst
    PRESENCE    mandatory}
}

PDSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                        RepetitionPeriod              OPTIONAL,
    repetitionLength                        RepetitionLength              OPTIONAL,
    tdd-PhysicalChannelOffset               TDD-PhysicalChannelOffset     OPTIONAL,
    dL-Timeslot-InformationModifyList-PSCH-ReconfRqst          DL-Timeslot-InformationModifyList-PSCH-ReconfRqst    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { {PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
    }

PDSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Timeslot-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1.. maxNrOfDLTSs)) OF DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst

DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                TimeSlot,
    midambleShiftAndBurstType               MidambleShiftAndBurstType   OPTIONAL,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    dL-Code-InformationModifyList-PSCH-ReconfRqst             DL-Code-InformationModifyList-PSCH-ReconfRqst   OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }     OPTIONAL,
```

```
    ...
}

DL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-Code-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF DL-Code-InformationModifyItem-PSCH-ReconfRqst

DL-Code-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pDSCH-ID                                PDSCH-ID,
    tdd-ChannelisationCode                  TDD-ChannelisationCode,
    iE-Extensions                           ProtocolExtensionContainer { { DL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

DL-Code-InformationModifyItem-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,
    iE-Extensions                           ProtocolExtensionContainer { {PUSCHSets-AddItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

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

PUSCH-Information-AddList-PSCH-ReconfRqst ::=  ProtocolIE-Single-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-AddItem-PSCH-ReconfRqst         PRESENCE
    mandatory}
}

PUSCH-Information-AddItem-PSCH-ReconfRqst ::= SEQUENCE {
```

```
    repetitionPeriod                          RepetitionPeriod,
    repetitionLength                          RepetitionLength,
    tdd-PhysicalChannelOffset                 TDD-PhysicalChannelOffset,
    uL-Timeslot-InformationAddList-PSCH-ReconfRqst            UL-Timeslot-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                             ProtocolExtensionContainer { {PUSCH-Information-AddItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
        ...
    }

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

UL-Timeslot-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationAddItem-PSCH-ReconfRqst

UL-Timeslot-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                          TimeSlot,
    midambleShiftAndBurstType         MidambleShiftAndBurstType,
    tFCI-Presence                     TFCI-Presence,
    uL-Code-InformationAddList-PSCH-ReconfRqst            UL-Code-InformationAddList-PSCH-ReconfRqst,
    iE-Extensions                     ProtocolExtensionContainer { { UL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

UL-Timeslot-InformationAddItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationAddList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPDSCHs)) OF UL-Code-InformationAddItem-PSCH-ReconfRqst

UL-Code-InformationAddItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                          PUSCH-ID,
    tdd-ChannelisationCode            TDD-ChannelisationCode,
    iE-Extensions                     ProtocolExtensionContainer { { UL-Code-InformationAddItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

UL-Code-InformationAddItem-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,
    iE-Extensions                        ProtocolExtensionContainer { {PUSCHSets-ModifyItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

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

```
PUSCH-Information-ModifyList-PSCH-ReconfRqst ::= ProtocolIE-Single-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-ModifyItem-PSCH-ReconfRqst
    PRESENCE    mandatory}
}

PUSCH-Information-ModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    repetitionPeriod                            RepetitionPeriod                  OPTIONAL,
    repetitionLength                            RepetitionLength                  OPTIONAL,
    tdd-PhysicalChannelOffset                   TDD-PhysicalChannelOffset         OPTIONAL,
    uL-Timeslot-InformationModifyList-PSCH-ReconfRqst        UL-Timeslot-InformationModifyList-PSCH-ReconfRqst    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { {PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
        ...
    }

PUSCH-Information-ModifyItem-PSCH-ReconfRqst-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Timeslot-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst

UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    timeSlot                                    TimeSlot,
    midambleShiftAndBurstType                   MidambleShiftAndBurstType   OPTIONAL,
    tFCI-Presence                               TFCI-Presence   OPTIONAL,
    uL-Code-InformationModifyList-PSCH-ReconfRqst           UL-Code-InformationModifyList-PSCH-ReconfRqst    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }    OPTIONAL,
    ...
}

UL-Timeslot-InformationModifyItem-PSCH-ReconfRqst-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-Code-InformationModifyList-PSCH-ReconfRqst ::= SEQUENCE (SIZE (1..maxNrOfPUSCHs)) OF UL-Code-InformationModifyItem-PSCH-ReconfRqst

UL-Code-InformationModifyItem-PSCH-ReconfRqst ::= SEQUENCE {
    pUSCH-ID                                    PUSCH-ID,
    tdd-ChannelisationCode                      TDD-ChannelisationCode,
    iE-Extensions                               ProtocolExtensionContainer { { UL-Code-InformationModifyItem-PSCH-ReconfRqst-ExtIEs} }   OPTIONAL,
    ...
}

UL-Code-InformationModifyItem-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,
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    setSpecificCause          SetSpecificCauseList-PSCH-ReconfFailureTDD,
    ...
}

GeneralCauseList-PSCH-ReconfFailureTDD ::= ProtocolIE-Single-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-Single-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-Single-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-Single-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 ::= {
    ...
}

-- *************************************************************
--
-- RESET REQUEST
--
-- *************************************************************

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

ResetRequest-IEs NBAP-PROTOCOL-IES ::= {
    {ID id-ResetIndicator       CRITICALITY ignore     TYPE    ResetIndicator     PRESENCE    mandatory},
    ...
}

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

ResetIndicator ::= CHOICE {
```

```
    communicationContext            CommunicationContextList-Reset,
    communicationControlPort        CommunicationControlPortList-Reset,
    nodeB                           NULL,
    ...
}


CommunicationContextList-Reset ::= ProtocolIE-Single-Container {{CommunicationContextIE-Reset }}


CommunicationContextIE-Reset NBAP-PROTOCOL-IES ::= {
    {ID id-CommunicationContextItem-Reset      CRITICALITY reject    TYPE CommunicationContextItem-Reset     PRESENCE mandatory }
}


CommunicationContextItem-Reset ::= SEQUENCE {
    communicationContextInfoList-Reset      CommunicationContextInfoList-Reset,
    iE-Extensions                           ProtocolExtensionContainer  { {CommunicationContextItem-Reset-ExtIEs} }   OPTIONAL,
    ...
}


CommunicationContextItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}


CommunicationContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxCommunicationContext))    OF ProtocolIE-Single-Container {{
CommunicationContextInfoItemIE-Reset }}


CommunicationContextInfoItemIE-Reset NBAP-PROTOCOL-IES ::= {
    {ID id-CommunicationContextInfoItem-Reset       CRITICALITY reject     TYPE CommunicationContextInfoItem-Reset    PRESENCE mandatory}
}


CommunicationContextInfoItem-Reset ::= SEQUENCE {
    cRNC-CommunicationContextID           CRNC-CommunicationContextID     OPTIONAL,
    -- This IE is only present when message is sent by the Node B
    nodeB-CommunicationContextID          NodeB-CommunicationContextID     OPTIONAL,
    -- This IE is only present when message is transmitted by the CRNC
    iE-Extensions                         ProtocolExtensionContainer { {CommunicationContextInfoItem-Reset-ExtIEs} } OPTIONAL,
    ...
}


CommunicationContextInfoItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}


CommunicationControlPortList-Reset ::= ProtocolIE-Single-Container {{CommunicationControlPortIE-Reset }}

CommunicationControlPortIE-Reset NBAP-PROTOCOL-IES ::= {
    {ID id-CommunicationControlPortItem-Reset      CRITICALITY reject     TYPE CommunicationControlPortItem-Reset   PRESENCE mandatory}
}

CommunicationControlPortItem-Reset ::= SEQUENCE {
    communicationControlPortInfoList-Reset     CommunicationControlPortInfoList-Reset,
    iE-Extensions                              ProtocolExtensionContainer  { {CommunicationControlPortItem-Reset-ExtIEs} }    OPTIONAL,
    ...
}

CommunicationControlPortItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

CommunicationControlPortInfoList-Reset ::= SEQUENCE (SIZE (1.. maxCCPinNodeB))  OF ProtocolIE-Single-Container {{CommunicationControlPortInfoItemIE-
Reset }}

CommunicationControlPortInfoItemIE-Reset NBAP-PROTOCOL-IES ::= {
    {ID id-CommunicationControlPortInfoItem-Reset       CRITICALITY reject     TYPE CommunicationControlPortInfoItem-Reset    PRESENCE mandatory}
}

CommunicationControlPortInfoItem-Reset ::= SEQUENCE {
    communicationControlPortID        CommunicationControlPortID,
    iE-Extensions                     ProtocolExtensionContainer { {CommunicationControlPortInfoItem-Reset-ExtIEs} }OPTIONAL,
    ...
}

CommunicationControlPortInfoItem-Reset-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- ************************************************************
--
-- RESET RESPONSE
--
```

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

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

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

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

END
```

9.3.4   Information Elements Definitions

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

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

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,
    ProcedureID,
    ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM NBAP-CommonDataTypes

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


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

Acknowledged-PCPCH-access-preambles ::= INTEGER (0..15,...)

Acknowledged-PRACH-preambles-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 {
        tGPSID          TGPSID,
        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-Power ::= INTEGER (-10..5)
-- Unit dB, Range -10dB .. +5dB, Step +1dB

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
}


-- =======================================
--  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,
    abstract-syntax-error-falsely-constructed-message,
    ...
}

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,
    priority-transport-channel-established,
    sIB-Origination-in-Node-B-not-Supported,
```

```
        requested-tx-diversity-mode-not-supported,
        unspecified,
        bCCH-scheduling-error,
        measurement-temporarily-not-available,
        invalid-CM-settings,
        reconfiguration-CFN-not-elapsed,
        number-of-DL-codes-not-supported,
        s-cipch-not-supported,
        combining-not-supported,
        ul-sf—not-supported,
        dl-SF-not-supported,
        common-transport-channel-type-not-supported,
        dedicated-transport-channel-type-not-supported,
        downlink-shared-channel-not-supported,
        uplink-shared-channel-not-supported,
        cm-not-supported,
        ...
}

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-prach-preambles,
    ul-timeslot-iscp,
    acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles,
    ...
}

CommonMeasurementValue ::= CHOICE {
    transmitted-carrier-power      Transmitted-Carrier-Power-Value,
    rssi                           RSSI-Value,
    acknowledged-prach-preambles            Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP               UL-TimeslotISCP-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 {
    procedureID            ProcedureID            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,
    rx-timing-deviation,
    round-trip-time,
    ...
}

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

Detected-PCPCH-access-preambles ::= INTEGER (0..240,...)


DeltaSIR                ::= INTEGER (0..30)
-- Unit dB, Step 0.1 dB, Range 0..3 dB.

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)


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


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

FDD-DL-ChannelisationCodeNumber ::= INTEGER(0.. 511)
-- According to the mapping in [9]. 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)
-- Unit slot

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


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


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


IB-OC-ID ::= INTEGER (1..16)


IB-SG-DATA ::= BIT STRING

IB-SG-POS ::= INTEGER (0..4094)
-- Only even positions allowed

IB-SG-REP ::= ENUMERATED {rep4, rep8, rep16, rep32, rep64, rep128, rep256, rep512, rep1024, rep2048, rep4096}

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

```
    sIB13dot3,
    sIB13dot4,
    sIB14,
    sIB15,
    sIB15dot1,
    sIB15dot2,
    sIB15dot3,
    sIB16,
    ...
}

IndicationType ::= ENUMERATED {
    noFailure,
    serviceImpacting,
    ...
}

-- =======================================
-- 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)

MidambleShiftAndBurstType ::=       CHOICE {
    type1                               CHOICE {
        defaultMidamble                     NULL,
        commonMidamble                      NULL,
        ueSpecificMidamble                  MidambleShiftLong
    },
    type2                               CHOICE {
        defaultMidamble                     NULL,
        commonMidamble                      NULL,
        ueSpecificMidamble                  MidambleShiftShort
    },
    type3                               CHOICE {
        defaultMidamble                     NULL,
        ueSpecificMidamble                  MidambleShiftLong
    },
    ...
}

MidambleShiftLong ::=               INTEGER (0..15)

MidambleShiftShort ::=              INTEGER (0..5)

MinimumDL-PowerCapability ::=  INTEGER(0..800)
-- Unit dBm, Range -30dBm .. 50dBm, Step +0.1dB

MinSpreadingFactor ::= ENUMERATED {
        v4,
        v8,
        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)

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)

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,
    ...
```

ETSI

```
}

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,
    ...
}

PICH-Power ::= INTEGER (-10..5)
-- Unit dB, Range -10dB .. +5dB, Step +1dB

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 (1..256)


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-prach-preambles     Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                 UL-TimeslotISCP-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-prach-preambles         Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                 UL-TimeslotISCP-Value,
    sir                         SIR-Value,
    sir-error                   SIR-Error-Value,
    transmitted-code-power          Transmitted-Code-Power-Value,
    rscp                        RSCP-Value,
    rx-timing-deviation             Rx-Timing-Deviation-Value,
    round-trip-time                 Round-Trip-Time-Value,
    acknowledged-PCPCH-access-preambles     Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles         Detected-PCPCH-access-preambles,
    ...
}

ReportCharacteristicsType-ScaledMeasurementChangeTime ::= CHOICE {
    msec                MeasurementChangeTime-Scaledmsec,
    ...
}

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

ReportCharacteristicsType-ScaledMeasurementHysteresisTime ::= CHOICE {
    msec                MeasurementHysteresisTime-Scaledmsec,
    ...
}

MeasurementHysteresisTime-Scaledmsec ::= INTEGER (1..600,...)
-- MeasurementHysteresisTime-Scaledmsec = 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
}

RetentionPriority ::= INTEGER(0..15)

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

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

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

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

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

RSCP-Value ::= INTEGER (0..81)
-- According to mapping in [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-DPCHOffset ::= CHOICE {
    initialOffset      INTEGER (0..255),
    noinitialOffset    INTEGER (0..63)
```

```
}

TDD-PhysicalChannelOffset ::= INTEGER (0..63)

TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size1,
    step-size2,
    step-size3,
    ...
}

TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors        SEQUENCE {
        betaC                   BetaCD,
        betaD                   BetaCD,
            refTFCNumber                RefTFCNumber    OPTIONAL
    },
    computedGainFactors         RefTFCNumber
}

TFCI-Coding ::= ENUMERATED {
    v4,
    v8,
    v16,
    v32,
    ...
}

TFCI-Presence ::= ENUMERATED {
    present,
    not-present
}

TFCI-SignallingMode ::= SEQUENCE {
    tFCI-SignallingOption       TFCI-SignallingMode-TFCI-SignallingOption,
    splitType               TFCI-SignallingMode-SplitType               OPTIONAL,
    -- This IE is only present if TFCI signalling option is split --
    lengthOfTFCI2               TFCI-SignallingMode-LengthOfTFCI2           OPTIONAL,
    -- This IE is only present if split type is logical --
    iE-Extensions               ProtocolExtensionContainer { { TFCI-SignallingMode-ExtIEs} }     OPTIONAL,
    ...
}

TFCI-SignallingMode-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCI-SignallingMode-LengthOfTFCI2 ::= INTEGER (1..10)

TFCI-SignallingMode-SplitType ::= ENUMERATED {
    hard,
    logical
}
```

ETSI

```
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


TGPSID              ::= INTEGER (1.. maxTGPS)


TGSN                ::= INTEGER (0..14)

TimeSlot ::= INTEGER (0..14)

TimeSlotDirection ::= ENUMERATED {
    ul,
    dl,
    ...
}

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 {
        tGPSID          TGPSID,
        tGSN            TGSN,
        tGL1            GapLength,
        tGL2            GapLength   OPTIONAL,
        tGD             TGD,
        tGPL1           GapDuration,
        tGPL2           GapDuration OPTIONAL,
        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 ::= {
    ...
}

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..512)

TransportFormatSet-RateMatchingAttribute ::= INTEGER (1..maxRateMatching)

TransportFormatSet-SecondInterleavingMode ::= ENUMERATED {
    frame-rlated,
    timeSlot-related,
    ...
}

TransportFormatSet-TransmissionTimeInterval ::= ENUMERATED {
    msec-10,
```

ETSI

```
    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-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
}

UL-TimeslotISCP-Value ::= INTEGER (0..81)
-- According to mapping in [5]

UL-TimeslotISCP-Value-IncrDecrThres ::= INTEGER (0..80)

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


-- =========================================
--   V
-- =========================================


-- =========================================
--   W
-- =========================================


-- =========================================
--   X
-- =========================================


-- =========================================
--   Y
-- =========================================


-- =========================================
--   Z
-- =========================================

END
```

9.3.5   Common Definitions

```
-- ************************************************************
--
-- Common definitions
--
-- ************************************************************
```

```
NBAP-CommonDataTypes {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-CommonDataTypes (3)  }

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   Constant Definitions

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

NBAP-Constants {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-Constants (4)}
```

```
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
id-reset                                                INTEGER ::= 37

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

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-- ****************************************************************


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 ::= 4
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 ::= 64
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
maxCommunicationContext    INTEGER ::= 1048575


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

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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-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-DeleteItem-RL-ReconfPrepFDD                     INTEGER ::= 91
id-DSCH-DeleteItem-RL-ReconfRqstFDD                     INTEGER ::= 92
id-DSCH-DeleteList-RL-ReconfPrepFDD                     INTEGER ::= 93
id-DSCH-ID                                              INTEGER ::= 95
id-DSCH-information-AddList-RL-ReconfPrepTDD            INTEGER ::= 96
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD         INTEGER ::= 98
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD         INTEGER ::= 100
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-FACH-InformationItem-AuditRsp                        INTEGER ::= 116
id-FACH-InformationItem-ResourceStatusInd               INTEGER ::= 117
id-FACHItem-CTCH-SetupRsp                               INTEGER ::= 118
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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
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
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id-PrimaryCCPCH-Information-Cell-SetupRqstFDD                    INTEGER ::= 176
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD                   INTEGER ::= 177
id-PrimaryCPICH-Information-Cell-SetupRqstFDD                    INTEGER ::= 178
id-PrimarySCH-Information-Cell-ReconfRqstFDD                     INTEGER ::= 179
id-PrimarySCH-Information-Cell-SetupRqstFDD                      INTEGER ::= 180
id-PrimaryScramblingCode                                        INTEGER ::= 181
id-ProcedureScopeType-DL-PC-Rqst                                INTEGER ::= 182
id-SCH-Information-Cell-ReconfRqstTDD                            INTEGER ::= 183
id-SCH-Information-Cell-SetupRqstTDD                             INTEGER ::= 184
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst                   INTEGER ::= 185
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst                INTEGER ::= 186
id-PUSCHSets-AddList-PSCH-ReconfRqst                            INTEGER ::= 187
id-PUSCHSets-DeleteList-PSCH-ReconfRqst                         INTEGER ::= 188
id-PUSCHSets-ModifyList-PSCH-ReconfRqst                         INTEGER ::= 189
id-RACH-InformationItem-AuditRsp                                INTEGER ::= 190
id-RACH-InformationItem-ResourceStatusInd                       INTEGER ::= 191
id-RACHItem-CTCH-SetupRsp                                       INTEGER ::= 192
id-RACHItem-CM-Rprt                                             INTEGER ::= 193
id-RACHItem-CM-Rqst                                             INTEGER ::= 194
id-RACHItem-CM-Rsp                                              INTEGER ::= 195
id-RACH-ParametersItem-CTCH-SetupRqstFDD                        INTEGER ::= 196
id-RACH-ParameterItem-CTCH-SetupRqstTDD                         INTEGER ::= 197
id-ReportCharacteristics                                        INTEGER ::= 198
id-Reporting-Object-RL-FailureInd                               INTEGER ::= 199
id-Reporting-Object-RL-RestoreInd                               INTEGER ::= 200
id-RL-ID                                                        INTEGER ::= 201
id-RL-InformationItem-DM-Rprt                                   INTEGER ::= 202
id-RL-InformationItem-DM-Rqst                                   INTEGER ::= 203
id-RL-InformationItem-DM-Rsp                                    INTEGER ::= 204
id-RL-InformationItem-RL-AdditionRqstFDD                        INTEGER ::= 205
id-RL-informationItem-RL-DeletionRqst                           INTEGER ::= 206
id-RL-InformationItem-RL-FailureInd                             INTEGER ::= 207
id-RL-InformationItem-RL-ReconfPrepFDD                          INTEGER ::= 208
id-RL-InformationItem-RL-ReconfRqstFDD                          INTEGER ::= 209
id-RL-InformationItem-RL-RestoreInd                             INTEGER ::= 210
id-RL-InformationItem-RL-SetupRqstFDD                           INTEGER ::= 211
id-RL-InformationList-RL-AdditionRqstFDD                        INTEGER ::= 212
id-RL-informationList-RL-DeletionRqst                           INTEGER ::= 213
id-RL-InformationList-RL-ReconfPrepFDD                          INTEGER ::= 214
id-RL-InformationList-RL-ReconfRqstFDD                          INTEGER ::= 215
id-RL-InformationList-RL-SetupRqstFDD                           INTEGER ::= 216
id-RL-InformationResponseItem-RL-AdditionRspFDD                 INTEGER ::= 217
id-RL-InformationResponseItem-RL-ReconfReady                    INTEGER ::= 218
id-RL-InformationResponseItem-RL-ReconfRsp                      INTEGER ::= 219
id-RL-InformationResponseItem-RL-SetupRspFDD                    INTEGER ::= 220
id-RL-InformationResponseList-RL-AdditionRspFDD                 INTEGER ::= 221
id-RL-InformationResponseList-RL-ReconfReady                    INTEGER ::= 222
id-RL-InformationResponseList-RL-ReconfRsp                      INTEGER ::= 223
id-RL-InformationResponseList-RL-SetupRspFDD                    INTEGER ::= 224
id-RL-InformationResponse-RL-AdditionRspTDD                     INTEGER ::= 225
id-RL-InformationResponse-RL-SetupRspTDD                        INTEGER ::= 226
id-RL-Information-RL-AdditionRqstTDD                            INTEGER ::= 227
id-RL-Information-RL-ReconfRqstTDD                              INTEGER ::= 228
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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
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
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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-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
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
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```
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

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
id-CommunicationContextInfoItem-Reset                        INTEGER ::= 412
id-CommunicationContextItem-Reset                            INTEGER ::= 413
id-CommunicationControlPortInfoItem-Reset                    INTEGER ::= 414
id-CommunicationControlPortItem-Reset                        INTEGER ::= 415
id-ResetIndicator                                            INTEGER ::= 416
id-TFCI2-Bearer-Information-RL-SetupRqstFDD                  INTEGER ::= 417
id-TFCI2-BearerSpecificInformation-RL-ReconfPrepFDD          INTEGER ::= 418
id-TFCI2-BearerInformationResponse-RL-SetupRspFDD            INTEGER ::= 419

END
```

9.3.7   Container Definitions

```
-- *************************************************************
--
-- Container definitions
--
-- *************************************************************

NBAP-Containers {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) nbap (2) version1 (1) nbap-Containers (5) }

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-Single-Container {NBAP-PROTOCOL-IES : IEsSetParam} ::=
    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
```

9.4 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].

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:
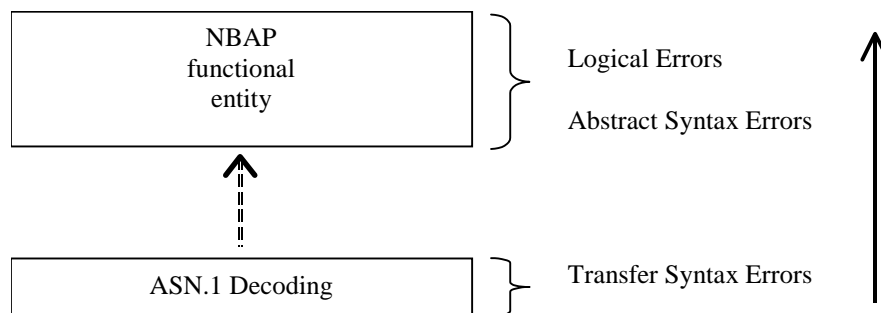
Figure 38: Protocol Errors in NBAP.

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;

4. receives IEs or IE groups that are defined to be part of that message in wrong order or with too many occurrences of the same IE or IE group.

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. Case 4 (IEs or IE groups in wrong order or with too many occurrences) results in rejecting the procedure.

If an Abstract Syntax Error occurs, the receiver shall read the remaining message and shall then for each detected Abstract Syntax Error that belong to cases 1-3 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. The handling of case 4 is specified in subclause 10.3.6.

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

The following rules restrict when a receiving entity may consider an IE, an IE group or an EP not comprehended (not implemented), and when action based on criticality information is applicable:

1. IE or IE group: When one new or modified IE or IE group is implemented for one EP from a standard version, then other new or modified IEs or IE groups specified for that EP in that standard version shall be considered comprehended by the receiving entity (some may still remain unsupported).

   Note that this restriction is applicable to a sending entity for constructing messages.

2. EP: The comprehension of different EPs within a standard version or between different standard versions is not mandated. Any EP that is not supported may be considered not comprehended, even if another EP from that standard version is comprehended, and action based on criticality shall be applied.

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 ID

The receiving node shall treat the different types of received criticality information of the *Procedure ID* according to the following:

Reject IE:

- If a message is received with a *Procedure ID* 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 ID* 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 ID* 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 ID

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure ID* 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 message *initiating* a procedure that does not have a message to report the outcome of the 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 initiate the Error Indication procedure to report 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 message *initiating* a procedure that does not have a message to report the outcome of the 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 initiate the Error Indication procedure to report 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.

10.3.6 IEs or IE groups received in wrong order or with too many occurrences

If a message with IEs or IE groups in wrong order or with too many occurrences is received, the receiving node shall behave according to the following:

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" 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 IEs or IE groups in wrong order or with too many occurrences, the receiving node shall initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".

- If a *response* message is received containing IEs or IE groups in wrong order or with too many occurrences, the receiving node shall initiate local error handling.

10.4 Logical Error

Logical error situations occur when a message is comprehended correctly, but the information contained within the message is not valid (i.e. semantic error), or describes a procedure which is not compatible with the state of the receiver. In these conditions, the following behaviour shall be performed (unless otherwise specified) as defined by the class of the elementary procedure, irrespective of the criticality of the IEs/IE groups containing the erroneous values.

Class 1:

Where the logical error occurs in a request message of a class 1 procedure, and the procedure has a failure message, the failure message shall be sent with an appropriate cause value.

Typical cause values are:

- Protocol Causes:

  1. Semantic Error

  2. Message not compatible with receiver state

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message, the ERROR INDICATION procedure shall be initiated with an appropriate cause value.

Where the logical error exists in a response message of a class 1 procedure, local error handling shall be initiated.

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the ERROR INDICATION procedure shall be initiated with an appropriate cause value.

Annex A (informative): Change history

Change history					
TSG RAN#	Version	CR	Tdoc RAN	New Version	Subject/Comment
RAN_06	-	-	RP-99764	3.0.0	Approved at TSG RAN #6 and placed under Change Control
RAN_07	3.0.0	-	-	3.1.0	Approved at TSG RAN #7
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
RAN_09	3.2.0	165 168-170, 173-178, 180-189	RP-000386	3.3.0	Approved at TSG RAN #9
RAN_09	3.2.0	190-200, 203 205 207 208 211 214 218-219	RP-000387	3.3.0	Approved at TSG RAN #9
RAN_09	3.2.0	221 222 224-228 233 244, 246	RP-000388	3.3.0	Approved at TSG RAN #9
RAN_09	3.2.0	247-248	RP-000389	3.3.0	Approved at TSG RAN #9

History

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