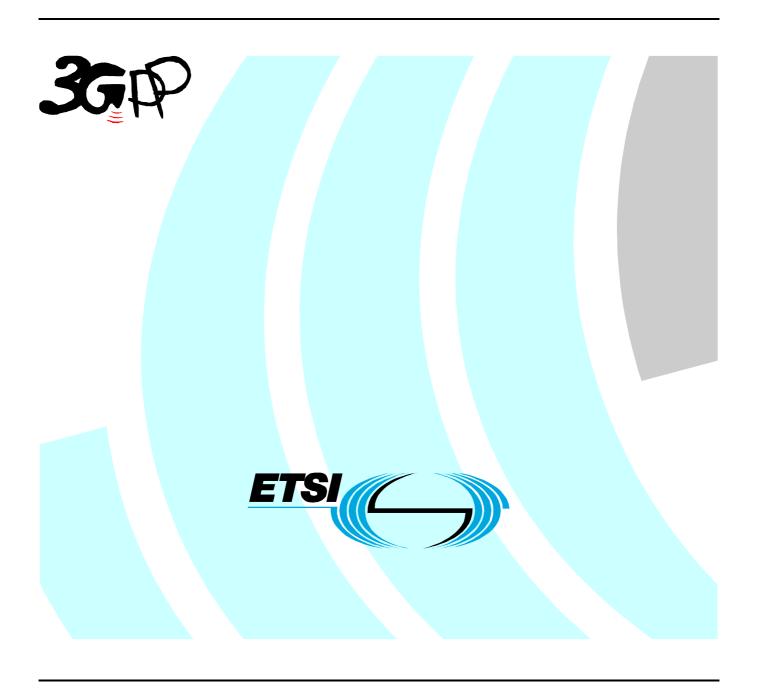
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Foreword

This Technical Specification (TS) has been produced by the 3rd Generation Partnership Project (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 the present document, it will be re-released by the TSG with an identifying change of release date and an increase in version number as follows:

Version x.y.z

where:

- x the first digit:
 - 1 presented to TSG for information;
 - 2 presented to TSG for approval;
 - 3 or greater indicates TSG approved document under change control.
- y the second digit is incremented for all changes of substance, i.e. technical enhancements, corrections, updates, etc.
- z the third digit is incremented when editorial only changes have been incorporated in the document.

1 Scope

[19]

The present document specifies the radio network layer signalling procedures of the control plane between RNCs in UTRAN.

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. In the case of a reference to a 3GPP document (including a GSM document), a non-specific reference implicitly refers to the latest version of that document *in the same Release as the present document*.
- [1] 3GPP TS 23.003: "Numbering, addressing and identification". [2] 3GPP TS 25.413: "UTRAN Iu Interface RANAP Signalling". 3GPP TS 25.426: "UTRAN Iur and Iub Interface Data Transport & Transport Layer Signalling for [3] DCH Data Streams". [4] 3GPP TS 25.427: "UTRAN Iur and Iub Interface User Plane Protocols for DCH Data Streams". [5] 3GPP TS 25.435: "UTRAN Iub interface User Plane Protocols for Common Transport Channel Data Streams". [6] 3GPP TS 25.104: "UTRA (BS) FDD; Radio transmission and Reception". [7] 3GPP TS 25.105: "UTRA (BS) TDD; Radio Transmission and Reception". [8] 3GPP TS 25.211: "Physical Channels and Mapping of Transport Channels onto Physical Channels (FDD)". 3GPP TS 25.212: "Multiplexing and Channel Coding (FDD)". [9] [10] 3GPP TS 25.214: "Physical Layer Procedures (FDD)". 3GPP TS 25.215: "Physical Layer – Measurements (FDD)". [11] 3GPP TS 25.221: "Physical Channels and Mapping of Transport Channels onto Physical Channels [12] (TDD)". 3GPP TS 25.223: "Spreading and Modulation (TDD)". [13] 3GPP TS 25.225: "Physical Layer - Measurements (TDD)". [14] 3GPP TS 25.304: "UE Procedures in Idle Mode" [15] [16] 3GPP TS 25.331: "RRC Protocol Specification". [17] 3GPP TS 25.402: "Synchronisation in UTRAN, Stage 2". ITU-T Recommendation X.680 (12/97): "Information technology - Abstract Syntax Notation One [18] (ASN.1): Specification of basic notation".

(ASN.1): Information object specification".

ITU-T Recommendation X.681 (12/97): "Information technology - Abstract Syntax Notation One

[20]	ITU-T Recommendation X.691 (12/97): "Information technology - ASN.1 encoding rules - Specification of Packed Encoding Rules (PER)".
[21]	3GPP TS 25.213: "Spreading and modulation (FDD)".
[22]	3GPP TS 25.224: "Physical Layer Procedures (TDD)".
[23]	3GPP TS 25.133 (V3.3): "Requirements for support of Radio Resource management (FDD)".
[24]	3GPP TS 25.123 (V3.5): "Requirements for support of Radio Resource management (TDD)".
[25]	3GPP TS 23.032: "Universal Graphical Area Description (GAD)".
[26]	3GPP TS 25.302: "Services Provided by the Physical Layer".
[27]	3GPP TS 25.213: "Spreading and modulation (FDD)".
[28]	3GPP TR 25.921: "Guidelines and Principles for Protocol Description and Error Handling".
[29]	GSM TS 05.05: "Digital cellular telecommunications system (Phase 2+); Radio transmission and reception".
[30]	ICD-GPS-200: "Navstar GPS Space Segment/Navigation User Interface".
[31]	RTCM-SC104: "RTCM Recommended Standards for Differential GNSS Service (v.2.2)".
[32]	3GPP TS 25.425: "UTRAN Iur and Iub Interface User Plane Protocols for Common Transport Channel data streams ".
[33]	IETF RFC 2460 "Internet Protocol, Version 6 (IPv6) Specification".
[34]	IETF RFC 768 "User Datagram Protocol", (8/1980)
[35]	3GPP TS 25.424: " UTRAN Iur Interface Data Transport & Transport Signalling for Common Transport Channel Data Streams ".

3 Definitions, symbols and abbreviations

3.1 Definitions

For the purposes of the present document, the following terms and definitions apply:

Elementary Procedure: RNSAP protocol consists of Elementary Procedures (EPs). An Elementary Procedure is a unit of interaction between two RNCs. 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 has been successfully completed with the receipt of the response.

Unsuccessful

- A signalling message explicitly indicates that the EP failed.

Class 2 EPs are considered always successful.

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.

UE Context: The UE Context contains the necessary information for the DRNC to communicate with a specific UE. The UE Context is created by the Radio Link Setup procedure or by the Uplink Signalling Transfer procedure when the UE makes its first access in a cell controlled by the DRNS. The UE Context is deleted by the Radio Link Deletion procedure, by the Common Transport Channel Resources Release procedure, or by the Downlink Signalling Transfer procedure when neither any Radio Links nor any common transport channels are established towards the concerning UE. The UE Context is identified by the SCCP Connection for messages using connection oriented mode of the signalling bearer and the D-RNTI for messages using connectionless mode of the signalling bearer, unless specified otherwise in the procedure text.

Distant RNC Context: The Distant RNC context is created by the first Common Measurement Initiation Procedure or Information Exchange Initiation Procedure initiated by one RNC and requested from another RNC. The Distant RNC Context is deleted after the Common Measurement Termination, the Common Measurement Failure, the Information Exchange Termination or the Information Exchange Failure procedure when there is no more Common Measurement and no more Information to be provided by the requested RNC to the requesting RNC. The Distant RNC Context is identified by an SCCP connection as, for common measurements and information exchange, only the connection oriented mode of the signalling bearer is used.

Real Time (RT): Real time bearer services are those services associated with RABs whose traffic class is defined as *Conversational* or *Streaming*.

Non Real Time (NRT): Non Real time bearer services are those services associated with RABs whose traffic class is defined as *Interactive* or *Background*.

3.2 Symbols

Void.

3.3 Abbreviations

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

A-GPS Assisted-GPS

ALCAP Access Link Control Application Part

ASN.1 Abstract Syntax Notation One

BLER Block Error Rate

CCCH Common Control Channel

CCPCH Common Control Physical Channel CCTrCH Coded Composite Transport Channel

CFN Connection Frame Number

CM Compressed Mode CN Core Network

CPCH Common Packet Channel
CPICH Common Pilot Channel
CRNC Controlling RNC
DCH Dedicated Channel
DGPS Differential GPS

DL Downlink

DPCCH Dedicated Physical Control Channel

DPCH Dedicated Physical Channel

DRNC Drift RNC
DRNS Drift RNS

D-RNTI Drift Radio Network Temporary Identifier

DRX Discontinuous Reception
DSCH Downlink Shared Channel
EP Elementary Procedure
FACH Forward Access Channel

FDD Frequency Division Duplex

FP Frame Protocol

GPS Global Positioning System IE Information Element

IMSI International Mobile Subscriber Identity

IP Internet Protocol
IPDL Idle Period DownLink

ISCP Interference Signal Code Power

LCS Location Services
MAC Medium Access Control
NAS Non Access Stratum
O&M Operation and Maintenance

P-CCPCH Primary CCPCH
PCH Paging Channel
P-CIPCH Primary CIPCH

PCPCH Physical Common Packet Channel

PDU Protocol Data Unit
PICH Paging Indication Channel
PRACH Physical Random Access Channel

RACH Random Access Channel

RL Radio Link
RLC Radio Link Control
RLS Radio Link Set

RNS Radio Network Subsystem

RNSAP Radio Network Subsystem Application Part
RNTI Radio Network Temporary Identifier

RRC Radio Resource Control
RSCP Received Signal Code Power

S-CCPCH Secondary CCPCH
SCH Synchronisation Channel
SCTD Space Code Transmit Diversity

SDU Service Data Unit SFN System Frame Number SIR Signal-to-Interference Ratio

SRNC Serving RNC SRNS Serving RNS

SSDT Site Selection Diversity Transmission STTD Space Time Transmit Diversity

TDD Time Division Duplex

TFCI Transport Format Combination Indicator
TFCS Transport Format Combination Set

TFS Transport Format Set

ToAWS Time of Arrival Window Endpoint

TPC Transmit Power Control
TrCh Transport Channel

TSTD Time Switched Transmit Diversity

UARFCN UTRA Absolute Radio Frequency Channel Number

UDP User Datagram Protocol UE User Equipment

UL Uplink

URA UTRAN Registration Area USCH Uplink Shared Channel

UTRA Universal Terrestrial Radio Access

UTRAN Universal Terrestrial Radio Access Network

4 General

4.1 Procedure Specification Principles

The principle for specifying the procedure logic is to specify the functional behaviour of the DRNC/CRNC exactly and completely. The SRNC functional behaviour is left unspecified. The Physical Channel Reconfiguration procedure and Reset procedure are an exception from this principle.

The following specification principles have been applied for the procedure text in subclause 8:

- The procedure text discriminates between:
 - 1) Functionality which "shall" be executed

The procedure text indicates that the receiving node "shall" perform a certain function Y under a certain condition. If the receiving node supports procedure X but cannot perform functionality Y requested in the REQUEST message of a Class 1 EP, the receiving node shall respond with the message used to report unsuccessful outcome for this procedure, containing an appropriate cause value.

2) Functionality which "shall, if supported" be executed

The procedure text indicates that the receiving node "shall, if supported," perform a certain function Y under a certain condition. If the receiving node supports procedure X, but does not support functionality Y, the receiving node shall proceed with the execution of the EP, possibly informing the requesting node about the not supported functionality.

- Any required inclusion of an optional IE in a response message is explicitly indicated in the procedure text. If the procedure text does not explicitly indicate that an optional IE shall be included in a response message, the optional IE shall not be included.

4.2 Forwards and Backwards Compatibility

The forwards and backwards compatibility of the protocol is assured by a mechanism where all current and future 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 Source Signalling Address Handling

The sender of an RNSAP messages shall include the Source Signalling Address, i.e. the Signalling Address of the sending node.

4.4 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, including 3.84Mcps TDD and 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[TDD]" and the section following the heading applies only to TDD, including 3.84Mcps TDD and 1.28Mcps TDD.

[3.84Mcps TDD] This tagging of a word indicates that the word preceding the tag "[3.84Mcps TDD]" applies only to 3.84Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[3.84Mcps TDD]" and the section following the heading applies only to 3.84Mcps TDD.

- [1.28Mcps TDD] This tagging of a word indicates that the word preceding the tag "[1.28Mcps TDD]" applies only to 1.28Mcps TDD. This tagging of a heading indicates that the heading preceding the tag "[1.28Mcps TDD]" and the section following the heading applies only to 1.28Mcps 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 including 3.84Mcps TDD and 1.28Mcps 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.
- [3.84Mcps TDD ...] This tagging indicates that the enclosed text following the "[3.84Mcps TDD " applies only to 3.84Mcps TDD. Multiple sequential paragraphs applying only to 3.84Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 3.84Mcps TDD specific paragraphs.

[1.28Mcps TDD - ...] This tagging indicates that the enclosed text following the "[1.28Mcps TDD – " applies only to 1.28Mcps TDD. Multiple sequential paragraphs applying only to 1.28Mcps TDD are enclosed separately to enable insertion of FDD and TDD specific (or common) paragraphs between the 1.28Mcps 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 RNSAP Services

5.1 RNSAP Procedure Modules

The Iur interface RNSAP procedures are divided into four modules as follows:

- 1. RNSAP Basic Mobility Procedures;
- 2. RNSAP DCH Procedures;
- 3. RNSAP Common Transport Channel Procedures;
- 4. RNSAP Global Procedures.

The Basic Mobility Procedures module contains procedures used to handle the mobility within UTRAN.

The DCH Procedures module contains procedures that are used to handle DCHs, DSCHs, and USCHs between two RNSs. If procedures from this module are not used in a specific Iur, then the usage of DCH, DSCH, and USCH traffic between corresponding RNSs is not possible.

The Common Transport Channel Procedures module contains procedures that are used to control common transport channel data streams (excluding the DSCH and USCH) over Iur interface.

The Global Procedures module contains procedures that are not related to a specific UE. The procedures in this module are in contrast to the above modules involving two peer CRNCs.

5.2 Parallel Transactions

Unless explicitly indicated in the procedure specification, at any instance in time one protocol peer shall have a maximum of one ongoing RNSAP DCH procedure related to a certain UE.

6 Services Expected from Signalling Transport

The signalling transport shall provide two different service modes for the RNSAP.

- Connection oriented data transfer service. This service is supported by a signalling connection between two
 RNCs. It shall be possible to dynamically establish and release signalling connections based on the need. Each
 active UE shall have its own signalling connection. The signalling connection shall provide in sequence delivery
 of RNSAP messages. RNSAP shall be notified if the signalling connection breaks.
- 2. Connectionless data transfer service. RNSAP shall be notified in case a RNSAP message did not reach the intended peer RNSAP entity.

7 Functions of RNSAP

The RNSAP protocol provides the following functions:

- Radio Link Management. This function allows the SRNC to manage radio links using dedicated resources in a DRNS;
- Physical Channel Reconfiguration. This function allows the DRNC to reallocate the physical channel resources for a Radio Link;
- Radio Link Supervision. This function allows the DRNC to report failures and restorations of a Radio Link;
- Compressed Mode Control [FDD]. This function allows the SRNC to control the usage of compressed mode within a DRNS:
- Measurements on Dedicated Resources. This function allows the SRNC to initiate measurements on dedicated resources in the DRNS. The function also allows the DRNC to report the result of the measurements;
- DL Power Drifting Correction [FDD]. This function allows the SRNC to adjust the DL power level of one or more Radio Links in order to avoid DL power drifting between the Radio Links;
- DCH Rate Control. This function allows the DRNC to limit the rate of each DCH configured for the Radio Link(s) of a UE in order to avoid congestion situations in a cell;
- CCCH Signalling Transfer. This function allows the SRNC and DRNC to pass information between the UE and the SRNC on a CCCH controlled by the DRNS;
- Paging. This function allows the SRNC to page a UE in a URA or a cell in the DRNS;
- Common Transport Channel Resources Management. This function allows the SRNC to utilise Common Transport Channel Resources within the DRNS (excluding DSCH resources for FDD);
- Relocation Execution. This function allows the SRNC to finalise a Relocation previously prepared via other interfaces;
- Reporting of General Error Situations. This function allows reporting of general error situations, for which function specific error messages have not been defined.
- DL Power Timeslot Correction [TDD]. This function enables the DRNS to apply an individual offset to the transmission power in each timeslot according to the downlink interference level at the UE.

- Measurements on Common Resources. This function allows an RNC to request from another RNC to initiate
 measurements on Common Resources. The function also allows the requested RNC to report the result of the
 measurements.
- Information Exchange. This function allows an RNC to request from another RNC the transfer of information. The function also allows the requested RNC to report the requested information.
- Resetting the Iur. This function is used to completely or partly reset the Iur interface.

The mapping between the above functions and RNSAP elementary procedures is shown in the Table 1.

Table 1: Mapping between functions and RNSAP elementary procedures

Function	Elementary Procedure(s)		
Radio Link Management	a) Radio Link Setup		
	b) Radio Link Addition		
	c) Radio Link Deletion		
	d) Unsynchronised Radio Link Reconfiguration		
	e) Synchronised Radio Link Reconfiguration		
	Preparation		
	f) Synchronised Radio Link Reconfiguration		
	Commit		
	g) Synchronised Radio Link Reconfiguration		
	Cancellation		
	h) Radio Link Pre-emption		
Physical Channel Reconfiguration	Physical Channel Reconfiguration		
Radio Link Supervision	a) Radio Link Failure		
•	b) Radio Link 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		
DCH Rate Control	a) Radio Link Setup		
	b) Radio Link Addition		
	c) Unsynchronised Radio Link Reconfiguration		
	d) Synchronised Radio Link Reconfiguration		
	Preparation		
	e) Radio Link Congestion		
CCCH Signalling Transfer	a) Uplink Signalling Transfer		
	b) Downlink Signalling Transfer		
Paging	Paging		
Common Transport Channel Resources	a) Common Transport Channel Resources		
Management	Initiation		
	b) Common Transport Channel Resources		
	Release		
Relocation Execution	Relocation Commit		
Reporting of General Error Situations	Error Indication		
Measurements on Common Resources	a) Common Measurement Initiation		
	b) Common Measurement Reporting		
	c) Common Measurement Termination		
	d) Common Measurement Failure		
Information Exchange	a) Information Exchange Initiation		
	b) Information Reporting		
	c) Information Exchange Termination		
	d) Information Exchange Failure		
DL Power Timeslot Correction [TDD]	Downlink Power Timeslot Control		
Reset	Reset		

8 RNSAP Procedures

8.1 Elementary Procedures

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

Table 2: Class 1 Elementary Procedures

Elementary	Initiating Message	Successful Outcome	Unsuccessful Outcome
Procedure		Response message	Response message
Radio Link Setup	RADIO LINK SETUP	RADIO LINK SETUP	RADIO LINK SETUP
	REQUEST	RESPONSE	FAILURE
Radio Link	RADIO LINK	RADIO LINK	RADIO LINK ADDITION
Addition	ADDITION REQUEST	ADDITION	FAILURE
		RESPONSE	
Radio Link	RADIO LINK	RADIO LINK	
Deletion	DELETION REQUEST	DELETION	
		RESPONSE	
Synchronised	RADIO LINK	RADIO LINK	RADIO LINK
Radio Link	RECONFIGURATION	RECONFIGURATION	RECONFIGURATION
Reconfiguration	PREPARE	READY	FAILURE
Preparation	2121211111	5.5.6	5.5.5.4.1111
Unsynchronised	RADIO LINK	RADIO LINK	RADIO LINK
Radio Link	RECONFIGURATION	RECONFIGURATION	RECONFIGURATION
Reconfiguration	REQUEST	RESPONSE	FAILURE
Physical Channel	PHYSICAL CHANNEL	PHYSICAL CHANNEL	PHYSICAL CHANNEL
Reconfiguration	RECONFIGURATION	RECONFIGURATION	RECONFIGURATION
D !! ()	REQUEST	COMMAND	FAILURE
Dedicated	DEDICATED	DEDICATED	DEDICATED
Measurement	MEASUREMENT	MEASUREMENT	MEASUREMENT
Initiation	INITIATION REQUEST	INITIATION RESPONSE	INITIATION FAILURE
Common	COMMON	COMMON	COMMON TRANSPORT
Common	TRANSPORT	TRANSPORT	CHANNEL RESOURCES
Transport Channel	CHANNEL	CHANNEL	FAILURE
Resources	RESOURCES	RESOURCES	FAILURE
Initialisation	REQUEST	RESPONSE	
Common	COMMON	COMMON	COMMON
Measurement	MEASUREMENT	MEASUREMENT	MEASUREMENT
Initiation	INITIATION REQUEST	INITIATION	INITIATION FAILURE
		RESPONSE	
Information	INFORMATION	INFORMATION	INFORMATION
Exchange	EXCHANGE	EXCHANGE	EXCHANGE INITIATION
Initiation	INITIATION REQUEST	INITIATION	FAILURE
		RESPONSE	
Reset	RESET REQUEST	RESET RESPONSE	

Table 3: Class 2 Elementary Procedures

Elementary Procedure	Initiating Message	
Uplink Signalling Transfer	UPLINK SIGNALLING TRANSFER	
	INDICATION	
Downlink Signalling Transfer	DOWNLINK SIGNALLING	
	TRANSFER REQUEST	
Relocation Commit	RELOCATION COMMIT	
Paging	PAGING REQUEST	
Synchronised Radio Link	RADIO LINK RECONFIGURATION	
Reconfiguration Commit	COMMIT	
Synchronised Radio Link	RADIO LINK RECONFIGURATION	
Reconfiguration Cancellation	CANCEL	
Radio Link Failure	RADIO LINK FAILURE INDICATION	
Radio Link Restoration	RADIO LINK RESTORE INDICATION	
Dedicated Measurement Reporting	DEDICATED MEASUREMENT REPORT	
Dedicated Measurement	DEDICATED MEASUREMENT	
Termination	TERMINATION REQUEST	
Dedicated Measurement Failure	DEDICATED MEASUREMENT	
	FAILURE INDICATION	
Downlink Power Control [FDD]	DL POWER CONTROL REQUEST	
Compressed Mode Command [FDD]	COMPRESSED MODE COMMAND	
Common Transport Channel	COMMON TRANSPORT CHANNEL	
Resources Release	RESOURCES RELEASE REQUEST	
Error Indication	ERROR INDICATION	
Downlink Power Timeslot Control [TDD]	DL POWER TIMESLOT CONTROL REQUEST	
Radio Link Pre-emption	RADIO LINK PREEMPTION	
	REQUIRED INDICATION	
Radio Link Congestion	RADIO LINK CONGESTION	
	INDICATION	
Common Measurement Reporting	COMMON MEASUREMENT REPORT	
Common Measurement	COMMON MEASUREMENT	
Termination	TERMINATION REQUEST	
Common Measurement Failure	COMMON MEASUREMENT	
	FAILURE INDICATION	
Information Reporting	INFORMATION REPORT	
Information Exchange Termination	INFORMATION EXCHANGE	
	TERMINATION REQUEST	
Information Exchange Failure	INFORMATION EXCHANGE	
	FAILURE INDICATION	

8.2 Basic Mobility Procedures

8.2.1 Uplink SignallingTransfer

8.2.1.1 General

The procedure is used by the DRNC to forward a Uu message received on the CCCH to the SRNC.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.1.2 Successful Operation

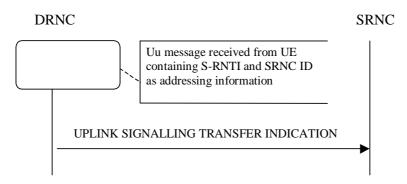


Figure 1: Uplink Signalling Transfer procedure, Successful Operation

When the DRNC receives an Uu message on the CCCH where the UE addressing information is U-RNTI, i.e. S-RNTI and SRNC-ID, DRNC shall send the UPLINK SIGNALLING TRANSFER INDICATION message to the SRNC identified by the SRNC-ID received from the UE.

If at least one URA Identity is being broadcast in the cell where the Uu message was received (the accessed cell), the DRNC shall include a URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the accessed cell, and the RNC Identity of all other RNCs that are having at least one cell within the URA where the Uu message was received in the *URA Information* IE in the UPLINK SIGNALLING TRANSFER INDICATION message.

The DRNC shall include in the message the C-RNTI that it allocates to identify the UE in the radio interface in the accessed cell. If there is no valid C-RNTI for the UE in the accessed cell , the DRNS shall allocate a new C-RNTI for the UE. If the DRNS allocates a new C-RNTI it shall also release any C-RNTI previously allocated for the UE.

If the DRNS has any RACH, [FDD - CPCH], and/or FACH resources allocated for the UE identified by the U-RNTI in another cell than the accessed cell in which the Mac SDU sizes, flow control settings (including credits) and/or transport bearer are different from those in the old cell, then the DRNS shall not include the *Common Transport Channel Resources Initialisation not Required* IE in the UPLINK SIGNALLING TRANSFER INDICATION message. In addition the DRNS shall release these RACH, [FDD - CPCH,] and/or FACH resources in old cell.

If the DRNS has any RACH, [FDD - CPCH], and/or FACH resources allocated for the UE identified by the U-RNTI in another cell than the accessed cell in which the Mac SDU sizes, flow control settings (including credits) and transport bearer are the same as in the old cell, there is no need for Common Transport Channel Resources Initialisation to be initiated. In that case, DRNC may include the *Common Transport Channel Resources Initialisation not Required* IE in the UPLINK SIGNALLING TRANSFER INDICATION message. In addition, the DRNS shall move these RACH, [FDD - CPCH,] and/or FACH resources to the new cell. If no Common Transfer Channel Resources Initialisation procedure is executed, the currently applicable Mac SDU sizes, flow control settings (including credits) and transport bearer shall continue to be used while the UE is in the new cell.

If no context exists for this UE in the DRNC, the DRNC shall create a UE Context for this UE, allocate a D-RNTI for the UE Context, and include the *D-RNTI* IE and the identifiers for the CN CS Domain and CN PS Domain that the DRNC is connected to in the UPLINK SIGNALLING TRANSFER INDICATION message. These CN Domain Identifiers shall be based on the LAC and RAC respectively of the cell where the message was received from the UE.

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE, where the Uu message was received in the UPLINK SIGNALLING TRANSFER INDICATION message.

[FDD - The DRNC shall include the *DPC Mode Change Support Indicator* IE in the UPLINK SIGNALLING TRANSFER INDICATION message if the accessed cell supports DPC mode change.]

[FDD- The DRNC shall include the *Flexible Hard Split Support Indicator* IE in the UPLINK SIGNALLING TRANSFER INDICATION message if the accessed cell supports TFCI flexible hard split mode.]

The DRNC shall include [FDD - the *Cell Capability Container FDD* IE], [3.84Mcps TDD - the *Cell Capability Container TDD* IE] and/or [1.28Mcps TDD - the *Cell Capability Container TDD LCR* IE] in the UPLINK

SIGNALLING TRANSFER INDICATION message if the accessed cell supports any functionalities listed in [FDD - 9.2.2.D], [3.84Mcps TDD - 9.2.3.1a] and [1.28 Mcps - TDD 9.2.3.1b].

8.2.1.3 Abnormal Conditions

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8.2.2 Downlink SignallingTransfer

8.2.2.1 General

The procedure is used by the SRNC to request to the DRNC the transfer of a Uu message on the CCCH in a cell. When used, the procedure is in response to a received Uplink Signalling Transfer procedure.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.2.2 Successful Operation



Figure 2: Downlink Signalling Transfer procedure, Successful Operation

The procedure consists of the DOWNLINK SIGNALLING TRANSFER REQUEST message sent by the SRNC to the DRNC.

The message contains the Cell Identifier (C-Id) contained in the received UPLINK SIGNALLING TRANSFER INDICATION message and the D-RNTI.

At the reception of the message, the DRNC shall send the L3 Information on the CCCH in the cell indicated by the *C-Id* IE to the UE identified by the *D-RNTI* IE.

If the *D-RNTI Release Indication* IE is set to "Release D-RNTI" and the DRNS has no dedicated resources (DCH, [TDD - USCH,] and/or DSCH) allocated for the UE, the DRNS shall release the D-RNTI and thus the UE Context and any RACH, [FDD - CPCH,] and FACH resources and any C-RNTI allocated to the UE Context at the reception of the DOWNLINK SIGNALLING TRANSFER REQUEST message.

If the *D-RNTI Release Indication* IE is set to "Release D-RNTI" and the DRNS has dedicated resources allocated for the UE, the DRNS shall only release any RACH, [FDD - CPCH,] and FACH resources and any C-RNTI allocated to the UE Context at the reception of the DOWNLINK SIGNALLING TRANSFER REQUEST message.

8.2.2.3 Abnormal Conditions

If the user identified by the *D-RNTI* IE has already accessed another cell controlled by the DRNC than the cell identified by the *C-Id* IE in the DOWNLINK SIGNALLING TRANSFER REQUEST message, the message shall be ignored.

8.2.3 Relocation Commit

8.2.3.1 General

The Relocation Commit procedure is used by source RNC to execute the Relocation. This procedure supports the Relocation procedures described in [2].

This procedure shall use the signalling bearer mode specified below.

8.2.3.2 Successful Operation



Figure 3: Relocation Commit procedure, Successful Operation

The source RNC sends the RELOCATION COMMIT message to the target RNC to request the target RNC to proceed with the Relocation. When the UE is utilising one or more radio links in the DRNC the message shall be sent using the connection oriented service of the signalling bearer and no further identification of the UE context in the DRNC is required. If on the other hand, the UE is not utilising any radio link the message shall be sent using the connectionless service of the signalling bearer and the *D-RNTI* IE shall be included in the message to identify the UE context in the DRNC.

At reception of the RELOCATION COMMIT message from the source RNC the target RNC finalises the Relocation. If the message contains the transparent *RANAP Relocation Information* IE the target RNC shall use this information when finalising the Relocation.

8.2.3.3 Abnormal Conditions

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8.2.4 Paging

8.2.4.1 General

This procedure is used by the SRNC to indicate to a CRNC that a UE shall be paged in a cell or URA that is under the control of the CRNC.

This procedure shall use the connectionless mode of the signalling bearer.

8.2.4.2 Successful Operation



Figure 4: Paging procedure, Successful Operation

The procedure is initiated with a PAGING REQUEST message sent from the SRNC to the CRNC.

If the message contains the *C-Id* IE, the CRNC shall page in the indicated cell. Alternatively, if the message contains the *URA-Id* IE, the CRNC shall page in all cells that it controls in the indicated URA.

If the PAGING REQUEST message includes the *CN Originated Page to Connected Mode UE* IE, the CRNC shall include the information contained in the *CN Originated Page to Connected Mode UE* IE when paging the UE.

The CRNC shall calculate the Paging Occasions from the *IMSI* IE and the *DRX Cycle Length Coefficient* IE according to specification in ref. [15] and apply transmission on PICH and PCH accordingly.

8.2.4.3 Abnormal Conditions

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8.3 DCH procedures

8.3.1 Radio Link Setup

8.3.1.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more radio links.

The connection-oriented service of the signalling bearer shall be established in conjunction with this procedure.

8.3.1.2 Successful Operation

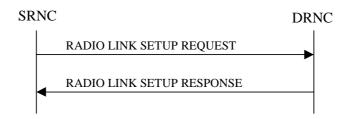


Figure 5: Radio Link Setup procedure: Successful Operation

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

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

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

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

Transport Channels Handling:

DCH(s):

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

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

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

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

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

- The DRNS shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs.
- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs as the Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs.
- The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise between different frames of the data frames of the DCHs in the downlink on the radio interface in congestion situations once the new RL(s) have been activated.
- The *Traffic Class* IE should be used to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.
- If the *DCH Specific Info* IE in the *DCH Information* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the downlink of the DCH.

DSCH(s):

- If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNC shall establish the requested DSCHs [FDD on the RL indicated by the PDSCH RL ID IE]. If the *Transport Layer Address* IE and *Binding ID* IE are included in the *DSCH Information* IE the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DSCH. In addition, the DRNC shall send a valid set of *DSCH Scheduling Priority* IE and *MAC-c/sh SDU Length* IE parameters to the SRNC in the message RADIO LINK SETUP RESPONSE message. If the *PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNC shall allocate a DSCH-RNTI to the UE Context and include the *DSCH-RNTI* IE in the RADIO LINK SETUP RESPONSE message.
- If the *DSCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.

[TDD - USCH(s)]:

- [TDD The DRNS shall use the list of RB Identities in the *RB Info* IE in the *USCH information* IE to map each *RB Identity* IE to the corresponding USCH. If the *Transport Layer Address* IE and *Binding ID* IE are included in the *USCH Information* IE the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the USCH.]
- [TDD If the *USCH Information* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.]

HS-DSCH(s):

If the *HS-DSCH Information* IE is present, the DRNS shall establish the requested HS-DSCH resources on the RL indicated by the *HS-PDSCH RL ID* IE. In addition, if the *HS-PDSCH RL ID* IE indicates a radio link in the DRNS, then the DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK SETUP RESPONSE message. The DRNS shall also include the *Binding ID* IE

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and *Transport Layer Address* IE for establishment of transport bearer(s) for the HS-DSCH MAC-d flows on this radio link.

[FDD – The DRNS shall set the Measurement Feedback Reporting Cycle to a default value equal to the largest of the k1 and k2 values.]

Physical Channels Handling:

- [FDD Compressed Mode]:
- [FDD If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the DRNS until the next Compressed Mode Configuration is configured in the DRNS or last Radio Link is deleted.]
- [FDD If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the DRNS shall use the information to activate the indicated Transmission Gap Pattern Sequences(s) in the new RL. The received *CM Configuration Change CFN* IE refers to latest passed CFN with that value. The DRNS shall treat the received *TGCFN* IEs as follows:]
 - [FDD If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
 - [FDD If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]
- [FDD- If the *Downlink Compressed Mode Method* IE in one or more Transmission Gap Pattern Sequence is set to 'SF/2' in the RADIO LINK SETUP REQUEST message, the DRNS shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the RADIO LINK SETUP RESPONSE message indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]
- [FDD DL Code Information]:
- [FDD When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *pth* to "*PhCH number p*".]

General:

- [FDD If the *Propagation Delay* IE is included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]
- [FDD If the received *Limited Power Increase* IE is set to 'Used', the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control.]
- [FDD If the RADIO LINK SETUP REQUEST message does not include the *Length of TFC12* IE and the *Split type* IE is present with the value "Hard", then the DRNS shall assume the length of the TFCI (field 2) is 5 bits.]
- [FDD If the RADIO LINK SETUP REQUEST message includes *Split Type* IE, then the DRNS shall apply this information to the new configuration of TFCI.]
- [FDD If the RADIO LINK SETUP REQUEST message includes the *Length of TFC12* IE, the DRNS shall apply this information to the length of TFCI(field 2).]

Radio Link Handling:

Diversity Combination Control:

- [FDD The *Diversity Control Field* IE indicates for each RL except for the first RL whether the DRNS shall combine the RL with any of the other RLs or not on the Iur. If the *Diversity Control Field* IE is set to "May" (be combined with another RL), then the DRNS shall decide for any of the alternatives. If the *Diversity Control Field* IE is set to "Must", the DRNS shall combine the RL with one of the other RL. When an RL is to be combined, the DRNS shall choose which RL(s) to combine it with. If the *Diversity Control Field* IE is set to "Must not", the DRNS shall not combine the RL with any other existing RL.]
- [FDD In the case of combining one or more RLs the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message with the *Diversity Indication* IE that the RL is combined with another RL RL for all RLs but the first RL. In this case the Reference *RL ID* IE shall be included to indicate with which RL the combination is performed. The Reference *RL ID* IE shall not be included for the first of the combined RLs, for which the *Transport Layer Address* IE and the *Binding ID* IE shall be included.]
- [FDD In the case of not combining an RL with another RL, the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message with the *Diversity Indication* IE that no combining is performed. In this case the DRNC shall include both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH and DSCH of the RL in the RADIO LINK SETUP RESPONSE message.]
- [TDD The DRNC shall always include in the RADIO LINK SETUP RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH, DSCH and USCH of the RL.]
- In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur the *Binding ID* IE and the *Transport Layer Address* IE shall be included only for one of the DCHs in the set of co-ordinated DCHs.

[FDD-Transmit Diversity]:

- [FDD If the cell in which the RL is being set up is capable to provide Close loop Tx diversity, the DRNC shall include the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK SETUP RESPONSE message indicating the configured Closed loop timing adjustment mode of the cell.]
- [FDD When *Diversity Mode* IE is "STTD", "Closed loop mode1", or "Closed loop mode2", the DRNC shall activate/deactivate the Transmit Diversity to each Radio Link in accordance with *Transmit Diversity Indicator* IE].

DL Power Control:

- [FDD If both the *Initial DL TX Power* IE and *Uplink SIR Target* IE are included in the message, the DRNS shall use the indicated DL TX Power and Uplink SIR Target as initial value. If the value of the *Initial DL TX Power* IE is outside the configured DL TX power range, the DRNS shall apply these constrains when setting the initial DL TX power. The DRNS shall also include the configured DL TX power range defined by *Maximum DL TX Power* IE and *Minimum DL TX Power* IE in the RADIO LINK SETUP RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power IE* or lower than indicated by the *Minimum DL TX Power IE* on any DL DPCH of the RL except during compressed mode, when the *P*_{SIR}(k), as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k.]
- [FDD If both the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not included in the RADIO LINK SETUP REQUEST message, then DRNC shall determine the initial Uplink SIR Target and include it in the *Uplink SIR Target* IE in the RADIO LINK SETUP RESPONSE message.]
- [TDD The DRNC shall use the *Uplink SIR Target CCTrCH* IEs in the RADIO LINK SETUP RESPONSE message to indicate for any UL CCTrCH an Uplink SIR Target value in case this is deviating from the value included in the *Uplink SIR Target* IE specified for the Radio Link. If in any [3.84Mcps TDD *UL CCTrCH Information* IE] [1.28Mcps TDD *UL CCTrCH Information LCR* IE] the *Uplink SIR Target CCTrCH* IE is not included, the value of the *Uplink SIR Target* IE shall apply to the respective UL CCTrCH.]
- [FDD If the *Primary CPICH Ec/No* IE is present, the DRNC should use the indicated value when deciding the Initial DL TX Power. If the *Enhanced Primary CPICH Ec/No* IE is present, the DRNC should use the indicated value when deciding the Initial DL Tx Power.]

- [TDD If the *Primary CCPCH RSCP* IE and/or the [3.84Mcps TDD *DL Time Slot ISCP Info* IE] and/or the [1.28Mcps TDD *DL Time Slot ISCP Info LCR* IE] are present, the DRNC should use the indicated values when deciding the Initial DL TX Power.]
- [FDD The DRNS shall start any DL transmission using the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code of a RL until UL synchronisation is achieved on the Uu interface for the concerning RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10] subclause 5.2.1.2) and the power control procedure (see 8.3.15).]
- [TDD The DRNS shall start any DL transmission using the decided DL TX power level on each DL channelisation code and on each Time Slot of a RL until UL synchronisation is achieved on the Uu interface for the concerning RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3).]
- [FDD If the received *Inner Loop DL PC Status* IE is set to "Active", the DRNS shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the DRNS shall deactivate the inner loop DL power control for all RLs according to ref. [10].
- [FDD If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the life time of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]
- [FDD If the RADIO LINK SETUP REQUEST message includes the *DL Power Balancing Information* IE and the *Power Adjustment Type* IE is set to "Common" or "Individual", the DRNS shall activate the power balancing, if activation of power balancing by the RADIO LINK SETUP REQUEST message is supported, according to subclause 8.3.15, using the *DL Power Balancing Information* IE. If the DRNS starts the DL transmission and the activation of the power balancing at the same CFN, the initial power of the power balancing shall be set to the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code of a RL.]
- [FDD If activation of power balancing by the RADIO LINK SETUP REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK SETUP RESPONSE message.]

Neighbouring Cell Handling:

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

- The DRNC shall include the Neighbouring FDD Cell Information IE and/or Neighbouring TDD Cell Information IE in the Neighbouring UMTS Cell Information IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include the Frame Offset IE, Primary CPICH Power IE, Cell Individual Offset IE, STTD Support Indicator IE, Closed Loop Mode1 Support Indicator IE, Closed Loop Mode2 Support Indicator IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring FDD Cell Information IE, and the Frame Offset IE, Cell Individual Offset IE, DPCH Constant Value IE, the PCCPCH Power IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring TDD Cell Information IE.
- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include the CN
 PS Domain Identifier IE and/or CN CS Domain Identifier IE which are the identifiers of the CN nodes
 connected to the RNC controlling the UMTS neighbouring cell.
- [FDD The DRNC shall include the *DPC Mode Change Support Indicator* IE if the DRNC is aware that the neighbouring cell supports DPC mode change.]
- [FDD- The DRNC shall include the *Flexible Hard Split Support Indicator* IE if the DRNC is aware that the neighbouring cell supports *Flexible Hard Split* mode.]
- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE and/or the *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionalities listed in 9.2.2.D, 9.2.3.1a and 9.2.3.1b.

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

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

General:

- If the RADIO LINK SETUP REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs.
- [FDD If the RADIO LINK SETUP REQUEST message includes the SSDT Cell Identity IE and the S-Field Length IE, the DRNS shall activate SSDT, if supported, using the SSDT Cell Identity IE and SSDT Cell Identity Length IE.]
- [FDD If the RADIO LINK SETUP REQUEST message includes the SSDT Cell Identity for EDSCHPC IE, the DRNS shall activate enhanced DSCH power control, if supported, using the SSDT Cell Identity for EDSCHPC IE and SSDT Cell Identity Length IE as well as Enhanced DSCH PC IE in accordance with ref. [10] subclause 5.2.2. If the RADIO LINK SETUP REQUEST message includes both SSDT Cell Identity IE and SSDT Cell Identity for EDSCHPC IE, then the DRNS shall ignore the SSDT Cell Identity for EDSCHPC IE.]
- [FDD If the *DRAC Control* IE is set to "requested" in the RADIO LINK SETUP REQUEST message for at least one DCH and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message the *Secondary CCPCH Info* IE for the FACH where the DRAC information is sent, for each Radio Link established in a cell where DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK SETUP RESPONSE message.]
- If no *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message, the DRNC shall include the node identifications of the CN Domain nodes that the RNC is connected to (using LAC and RAC of the current cell), and the *D-RNTI* IE in the RADIO LINK SETUP RESPONSE message.
- [FDD If the *D-RNTI* IE was included the RADIO LINK SETUP REQUEST message the DRNC shall include the *Primary Scrambling Code* IE, the *UL UARFCN* IE and the *DL UARFCN* IE in the RADIO LINK SETUP RESPONSE message.]
- [TDD If the *D-RNTI* IE was included in the RADIO LINK SETUP REQUEST message the DRNC shall include the *UARFCN* IE, the *Cell Parameter ID* IE,[3.84Mcps TDD the *Sync Case* IE, the *SCH Time Slot* IE,] the *SCTD Indicator* IE, and the *PCCPCH Power* IE in the RADIO LINK SETUP RESPONSE message.]
- [TDD The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the [3.84Mcps TDD *Secondary CCPCH Info TDD IE*] [1.28Mcps TDD *Secondary CCPCH Info TDD LCR* IE] in the RADIO LINK SETUP RESPONSE message if at least one *DSCH Information Response* IE or *USCH Information Response* IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]
- For each Radio Link established in a cell where at least one URA Identity is being broadcast, the DRNC shall include a URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the RNC Identity of all other RNCs that are having at least one cell within the URA in the cell in the *URA Information* IE in the RADIO LINK SETUP RESPONSE message.
- Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE and the UTRAN access point position for each of the established RLs in the RADIO LINK SETUP RESPONSE message.

- If the DRNS need to limit the user rate in the uplink of a DCH due to congestion caused by the UL UTRAN Dynamic Resources (see subclause 9.2.1.79) already when starting to utilise a new Radio Link, the DRNC shall include the *Allowed UL Rate* IE of the *Allowed Rate Information* IE in the *DCH Information Response* IE for this DCH in the RADIO LINK SETUP RESPONSE message for this Radio Link.
- If the DRNS need to limit the user rate in the downlink of a DCH due to congestion caused by the DL UTRAN Dynamic Resources (see subclause 9.2.1.79) already when starting to utilise a new Radio Link, the DRNC shall include the *Allowed DL Rate* IE of the *Allowed Rate Information* IE in the *DCH Information Response* IE for this DCH in the RADIO LINK SETUP RESPONSE message for this Radio Link.
 - If the *Permanent NAS UE Identity* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.
- If the RADIO LINK SETUP REQUEST message includes the *Permanent NAS UE Identity* IE and a *C-ID* IE corresponding to a cell reserved for operator use, the DRNC shall use this information to determine whether it can set up a Radio Link on this cell or not for the considered UE Context.
- If the HCS priority information is available in the DRNS, it shall include the *HCS Prio* IE for each of the established RLs in the RADIO LINK SETUP RESPONSE message.
- [FDD If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK SETUP RESPONSE message.]

[FDD - Radio Link Set Handling]:

- [FDD The *First RLS Indicator* IE indicates if the concerning RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the DRNS to determine the initial TPC pattern in the DL of the concerning RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.
- [FDD For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message a value that uniquely identifies the RL Set within the UE Context.]
- [FDD For all RLs having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign the *RL Set ID* IE included in the RADIO LINK SETUP RESPONSE message the same value. This value shall uniquely identify the RL Set within the UE context.]
- [FDD –The UL Uu synchronisation detection algorithm defined in ref. [10] subclause 4.3 shall for each of the established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

Response Message:

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

After sending of the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface and start reception on the new RL.

- For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK SETUP REQUEST message the DRNS shall:
- [FDD -start DL transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [4].]
- [TDD start transmission on the new RL immediately as specified in ref. [4].]
 - For each RL for which the *Delayed Activation* IE is included in the RADIO LINK SETUP REQUEST message, the DRNS shall:
- if the Delayed Activation IE indicates "Separate Indication":
 - not start any DL transmission for the concerning RL on the Uu interface;

- if the Delayed Activation IE indicates "CFN":
 - [FDD start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]
 - [TDD start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in ref. [4].]

8.3.1.3 Unsuccessful Operation

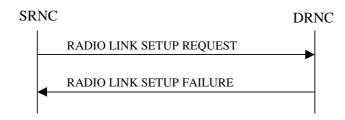


Figure 6: Radio Link Setup procedure: Unsuccessful Operation

In unsuccessful case (i.e. one or more RLs can not be established) the RADIO LINK SETUP FAILURE message shall be sent to the SRNC, indicating the reason for failure. If some radio links were established successfully, the DRNC shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.

If the RADIO LINK SETUP REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the *Permanent NAS UE Identity* IE is not present, the DRNC shall consider the procedure as failed and send the RADIO LINK SETUP FAILURE message.

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK SETUP FAILURE message.]

Typical cause values are:

Radio Network Layer Causes:

- [FDD UL Scrambling Code Already in Use];
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- [FDD Combining Resources not available];
- Combining not Supported
- Requested Configuration not Supported;
- Cell not Available;
- [FDD Requested Tx Diversity Mode not Supported];
- Power Level not Supported;
- Number of DL codes not supported;
- Number of UL codes not supported;
- Dedicated Transport Channel Type not Supported;
- DL Shared Channel Type not Supported;
- [TDD UL Shared Channel Type not Supported];
- [FDD UL Spreading Factor not Supported];

- [FDD DL Spreading Factor not Supported];
- CM not Supported;
- [FDD DPC mode change not Supported];
- Cell reserved for operator use;
- Delayed Activation not supported.

Transport Layer Causes:

- Transport Resource Unavailable.

Miscellaneous Causes:

- Control Processing Overload;
- HW Failure;
- Not enough User Plane Processing Resources.

8.3.1.4 Abnormal Conditions

If the DRNC receives either an S-RNTI or a D-RNTI which already has RL(s) established the DRNC shall send the RADIO LINK SETUP FAILURE message to the SRNC, indicating the reason for failure.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Active Pattern Sequence Information* IE, but the *Transmission Gap Pattern Sequence Information* IE is not present, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message includes both the *Initial DL TX Power* IE and the *Primary CPICH Ec/No* IE or does not include either of these IEs, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE 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 DRNS shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message.

[FDD - If only the *Initial DL TX Power* IE or the *Uplink SIR Target* IE is included in the RADIO LINK SETUP REQUEST message, then DRNC shall regard the Radio Link Setup procedure as failed and shall respond with the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes a *DCH Information* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCH Information* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Enhanced Primary CPICH Ec/No* IE, but not the *Primary CPICH Ec/No* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Split Type* IE but includes *TFCI Signalling Mode* IE set to "Split", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD – If the RADIO LINK SETUP REQUEST message does not include the *Length of TFC12* IE but the *Split type* IE is set to "Logical", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message includes the *Split Type* IE set to the value "Hard" and the *Length of TFCI2* IE set to the value "5", then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

[FDD - If the RADIO LINK SETUP REQUEST message does not include the *Split Type* IE but includes the *Length of TFCI2* IE, then the DRNC shall reject the procedure using the RADIO LINK SETUP FAILURE message.]

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must", the DRNC shall regard the Radio Link Setup procedure as failed and the DRNC shall respond with the RADIO LINK SETUP FAILURE message.

If the RADIO LINK SETUP REQUEST message includes the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the DRNC shall regard the Radio Link Setup procedure as failed and the DRNC shall respond with the RADIO LINK SETUP FAILURE message.

8.3.2 Radio Link Addition

8.3.2.1 General

This procedure is used for establishing the necessary resources in the DRNS for one or more additional RLs towards a UE when there is already at least one RL established to the concerning UE via this DRNS.

This procedure shall use the signalling bearer connection for the relevant UE context.

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

[FDD – The Radio Link Addition procedure serves to establish one or more new Radio Links which do not contain the DSCH. If the DSCH shall be moved into a new Radio Link, the Radio Link reconfiguration procedure shall be applied.]

[TDD – The Radio Link Addition procedure serves to establish a new Radio Link with the DSCH and USCH included, if they existed before.]

8.3.2.2 Successful Operation

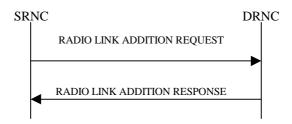


Figure 7: Radio Link Addition procedure: Successful Operation

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

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

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

Transport Channel Handling:

DSCH:

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

Physical Channels Handling:

[FDD-Compressed Mode]:

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

- [FDD If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]
- FDD If the *Active Pattern Sequence Information* IE is not included, the DRNS shall not activate the ongoing compressed mode pattern in the new RLs, but the ongoing pattern in the existing RL shall be maintained.]
- [FDD If some Transmission Gap Pattern sequences using SF/2 method are initialised in the DRNS, DRNS shall include the *Transmission Gap Pattern Sequence Scrambling Code Information IE* in the RADIO LINK ADDITION RESPONSE message to indicate the Scrambling code change method that it selects for each channelisation code.]

[FDD-DL Code Information]:

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

General:

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

Radio Link Handling:

Diversity Combination Control:

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

- In the case of combining an RL with existing RL(s) the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message with the *Diversity Indication* IE that the RL is combined. In this case the Reference RL ID shall be included to indicate one of the existing RLs that the new RL is combined with.
- [FDD In the case of combining one or more RLs being established by this procedure, the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message with the *Diversity Indication* IE that the RL is combined with another RL for all RLs but the first RL. In this case the Reference RL ID shall be included to indicate one of the other RLs being established by this procedure that the new RL is combined with. The Reference *RL ID* IE shall not be included for the first of the combined RLs, for which the *Transport Layer Address* IE and the *Binding ID* IE shall be included.]
- In the case of not combining an RL with existing RL(s), the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message with the *Diversity Indication* IE that no combining is done. In this case the DRNC shall include both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DCH, [TDD and DSCH, USCH] of the RL in the RADIO LINK ADDITION RESPONSE message.
- In case of a set of co-ordinated DCHs, the *Binding ID* IE and the *Transport Layer Address* IE shall be included for only one of the DCHs in the set of co-ordinated DCHs.

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

[FDD-Transmit Diversity]:

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

- [FDD If the cell in which the RL is being added is capable to provide Close loop Tx diversity, the DRNC shall include the *Closed Loop Timing Adjustment Mode* IE in the RADIO LINK ADDITION RESPONSE message indicating the Closed loop timing adjustment mode of the cell.]
- [FDD When *Transmit Diversity Indicator* IE is present the DRNS shall activate/deactivate the Transmit Diversity to each new Radio Link in accordance with the *Transmit Diversity Indicator* IE using the diversity mode of the existing Radio Link(s).]

DL Power Control:

- [FDD If the *Primary CPICH Ec/No* IE or the *Primary CPICH Ec/No* IE and the *Enhanced Primary CPICH Ec/No* IE measured by the UE are included for an RL in the RADIO LINK ADDITION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power for this RL. If the *Primary CPICH Ec/No* IE is not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CPICH power used by the existing RLs.]
- [TDD If the *Primary CCPCH RSCP* IE and/or the [3.84Mcps TDD *DL Time Slot ISCP Info* IE] and/or the [1.28Mcps TDD *DL Time Slot ISCP Info LCR* IE] are included in the RADIO LINK ADDITION REQUEST message, the DRNS shall use them in the calculation of the Initial DL TX Power. If the *Primary CCPCH RSCP* IE and [3.84Mcps TDD *DL Time Slot ISCP Info* IE] and [1.28Mcps TDD *DL Time Slot ISCP Info LCR* IE] are not present, the DRNS shall set the Initial DL TX Power based on the power relative to the Primary CCPCH power used by the existing RL.]
- [FDD The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RLS or Power Balancing is activated. No inner loop power control or power balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [10] subclause 5.2.1.2) and the power control procedure (see 8.3.7)].
- [TDD The Initial DL TX Power shall be applied until UL synchronisation is achieved on the Uu interface for that RL. No innerloop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref. [22] subclause 4.2.3.3).].
- [FDD If the *DPC Mode* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNC shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the life time of the RL. If the *DPC Mode* IE is not present in the RADIO LINK ADDITION REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]
- The DRNC shall also provide the configured UL Maximum SIR and UL Minimum SIR for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. These values are taken into consideration by DRNS admission control and shall be used by the SRNC as limits for the UL inner-loop power control target.
- The DRNC shall provide the configured *Maximum DL TX Power* IE and *Minimum DL TX Power* IE for every new RL to the SRNC in the RADIO LINK ADDITION RESPONSE message. The DRNS shall not transmit with a higher power than indicated by the *Maximum DL TX Power IE* or lower than indicated by the *Minimum DL TX Power IE* on any DL DPCH of the RL [FDD except during compressed mode, when the $P_{SIR}(k)$, as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k].
- [FDD If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) and the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IE, the DRNS shall activate the power balancing and use the *DL Reference Power* IE for

the power balancing procedure in the new RL(s), if activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported, according to subclause 8.3.15.]

[FDD – If activation of power balancing by the RADIO LINK ADDITION REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Activation Indicator* IE in the *RL Information Response* IE in the RADIO LINK ADDITION RESPONSE message.]

DL Code Information:

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

Neighbouring Cell Handling:

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

- The DRNC shall include the Neighbouring FDD Cell Information IE and/or Neighbouring TDD Cell Information IE in the Neighbouring UMTS Cell Information IE for each neighbouring FDD cell and/or TDD cell respectively. In addition, if the information is available, the DRNC shall include the Frame Offset IE, Primary CPICH Power IE, Cell Individual Offset IE, STTD Support Indicator IE, Closed Loop Mode1 Support Indicator IE, Closed Loop Mode2 Support Indicator IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring FDD Cell Information IE, and the Frame Offset IE, Cell Individual Offset IE, DPCH Constant Value IE and the PCCPCH Power IE, Coverage Indicator IE, Antenna Co-location Indicator IE and HCS Prio IE in the Neighbouring TDD Cell Information IE...
- If a UMTS neighbouring cell is not controlled by the same DRNC, the DRNC shall also include the *CN PS Domain Identifier* IE and/or *CN CS Domain Identifier* IE which are the identifiers of the CN nodes connected to the RNC controlling the UMTS neighbouring cell.
- [FDD The DRNC shall include the *DPC Mode Change Support Indicator* IE if the DRNC is aware that the neighbouring cell supports DPC mode change.]
- [FDD The DRNC shall include the *Flexible Hard Split Support Indicator* IE if the DRNC is aware that the neighbouring cell supports *Flexible Hard Split* mode.]
- The DRNC shall include the *Cell Capability Container FDD* IE, the *Cell Capability Container TDD* IE and/or the *Cell Capability Container TDD LCR* IE if the DRNC is aware that the neighbouring cell supports any functionalities listed in 9.2.2.D, 9.2.3.1a and 9.2.3.1b.

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

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

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

General:

If the RADIO LINK ADDITION REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for the DCH or the set of co-ordinated DCHs.

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

- Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell, represented either by the *Cell GAI* IE or by the *Cell GA Additional Shapes* IE, and the UTRAN access point position for each of the added RLs in the RADIO LINK ADDITION RESPONSE message.
- For each Radio Link established in a cell where at least one URA Identity is being broadcast, the DRNC shall include a URA Identity for this cell in the *URA ID* IE, the *Multiple URAs Indicator* IE indicating whether or not multiple URA Identities are being broadcast in the cell, and the RNC Identity of all other RNCs that are having at least one cell within the URA in the cell in the *URA Information* IE in the RADIO LINK ADDITION RESPONSE message.
- [FDD If the UE has been allocated one or several DCH controlled by DRAC and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message the *Secondary CCPCH Info* IE for the FACH where the DRAC information is sent, for each Radio Link established in a cell where DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK ADDITION RESPONSE message.]
- [TDD The DRNC shall include the [3.84Mcps TDD Secondary CCPCH Info TDD IE] [1.28Mcps TDD Secondary CCPCH Info TDD LCR IE] in the RADIO LINK ADDITION RESPONSE message if at least one DSCH Information Response IE or USCH Information Response IE is included in the message and at least one DCH is configured for the radio link. The DRNC shall also include the [3.84Mcps TDD Secondary CCPCH Info TDD IE] [1.28Mcps TDD Secondary CCPCH Info TDD LCR IE] in the RADIO LINK ADDITION RESPONSE message if at least one [3.84Mcps TDD DSCH Information Response IE] [1.28Mcps TDD DSCH Information Response LCR IE] or USCH Information Response IE is included in the message and the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]
 - If the *Permanent NAS UE Identity* IE is present in the RADIO LINK ADDITION REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.
- If the RADIO LINK ADDITION REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is available in the DRNC for the considered UE Context, the DRNC shall use this information to determine whether it can add the Radio Link on this cell or not.
- If the HCS priority information is available in the DRNS, it shall include the *HCS Prio* IE for each of the established RLs in the RADIO LINK ADDITION RESPONSE message.
- [FDD If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK ADDITION RESPONSE message.]

[FDD-Radio Link Set Handling]:

- [FDD For each RL not having a common generation of the TPC commands in the DL with another RL, the DRNS shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message a value that uniquely identifies the RL Set within the UE context.]
- [FDD For all RLs having a common generation of the TPC commands in the DL with another new or existing RL, the DRNS shall assign the *RL Set ID* IE included in the RADIO LINK ADDITION RESPONSE message the same value. This value shall uniquely identify the RL Set within the UE context.]
 - [FDD After addition of the new RL(s), the UL Uu synchronisation detection algorithm defined in ref. [10] subclause 4.3 shall for each of the previously existing and newly established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

Response message:

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

After sending of the RADIO LINK ADDITION RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation on the Uu interface and start reception on the new RL.

For each RL for which the *Delayed Activation* IE is not included in the RADIO LINK ADDITION REQUEST message the DRNS shall:

- [FDD -start DL transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [4].]
- [TDD start transmission on the new RL immediately as specified in ref. [4].]

For each RL for which the *Delayed Activation* IE is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall:

- if the *Delayed Activation* IE indicates "Separate Indication":
 - not start any DL transmission for the concerning RL on the Uu interface;
- if the Delayed Activation IE indicates "CFN":
 - [FDD start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [4], however never before the CFN indicated in the *Activation CFN* IE.]
- [TDD start transmission on the new RL at the CFN indicated in the Activation CFN IE as specified in ref. [4].]

8.3.2.3 Unsuccessful Operation

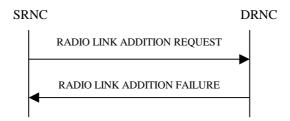


Figure 8: Radio Link Addition procedure: Unsuccessful Operation

If the establishment of at least one RL is unsuccessful, the DRNC shall send a RADIO LINK ADDITION FAILURE as response.

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

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Active Pattern Sequence Information* IE and the DRNS cannot provide the requested compressed mode the DRNS 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".]

[FDD - If the accessed cell supports TFCI power control, the DRNC shall include the *TFCI PC Support Indicator* IE in the RADIO LINK ADDITION FAILURE message.]

Typical cause values are:

Radio Network Layer Causes:

- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Combining Resources not Available;
- Combining not Supported
- Cell not Available;
- [FDD Requested Tx Diversity Mode not Supported];
- Power Level not Supported;
- CM not Supported;

- Reconfiguration CFN not Elapsed;
- Number of DL Codes not Supported;
- Number of UL codes not Supported;
- [FDD DPC mode change not Supported];
- Cell reserved for operator use;
- Delayed Activation not supported.

Transport Layer Causes:

- Transport Resource Unavailable.

Miscellaneous Causes:

- Control Processing Overload;
- HW Failure:
- Not enough User Plane Processing Resources.

8.3.2.4 Abnormal Conditions

If the RADIO LINK ADDITION REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is not available in the DRNC for the considered UE Context, the DRNC shall consider the procedure as failed for this particular Radio Link and send the RADIO LINK ADDITION FAILURE message.

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Transmission Gap Pattern Sequence Status* IEs in the *Active Pattern Sequence Information* IE and it does not address exactly all ongoing compressed mode patterns the DRNS 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".]

[FDD - If the RADIO LINK ADDITION REQUEST is used to establish a new RL without compressed mode when compressed mode is active for the existing RL(s) (as specified in subclause 8.3.2.2), but at least one new RL is to be established in a cell that has the same UARFCN (both UL and DL) as at least one cell with an already existing RL, the DRNS 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".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) and if the *DL Reference Power* IEs are included in the *RL Information* IE but the *DL Reference Power* IE is not present for each RL in the *RL Information* IE, the DRNC shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message.]

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *DL Reference Power* IEs in the *RL Information* IE but the power balancing is not active in the existing RL(s) or the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s), the DRNC shall regard the Radio Link Addition procedure as failed and shall respond with a RADIO LINK ADDITION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Enhanced Primary CPICH Ec/No* IE, but not the *Primary CPICH Ec/No* IE, then the DRNC shall reject the procedure using the RADIO LINK ADDITION FAILURE message.]

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE and the *Binding ID* IE in the *RL Specific DCH Information* IE included in the *RL Information* IE for a specific RL and the *Diversity Control Field* IE is set to "Must", the DRNC shall regard the Radio Link Addition procedure as failed and respond with the RADIO LINK ADDITION FAILURE message.

If the RADIO LINK ADDITION REQUEST message includes the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport bearer intended to be established, the DRNC shall regard the Radio Link Addition procedure as failed and respond with the RADIO LINK ADDITION FAILURE message.

8.3.3 Radio Link Deletion

8.3.3.1 General

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

This procedure shall use the signalling bearer connection for the relevant UE context.

The Radio Link Deletion procedure may be initiated by the SRNC at any time after establishing a Radio Link.

8.3.3.2 Successful Operation

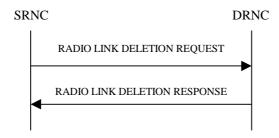


Figure 9: Radio Link Deletion procedure, Successful Operation

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

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

If the radio link(s) to be deleted represent the last radio link(s) for the UE in the DRNS then the DRNC shall also release the UE context, unless the UE is using common resources in the DRNS.

[FDD – After deletion of the RL(s), the UL Uu synchronisation detection algorithm defined in ref. [10] subclause 4.3 shall for each of the remaining RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

8.3.3.3 Unsuccessful Operation

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8.3.3.4 Abnormal Conditions

If the RL indicated by the *RL ID* IE does not exist, the DRNC shall respond with the RADIO LINK DELETION RESPONSE message.

8.3.4 Synchronised Radio Link Reconfiguration Preparation

8.3.4.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of Radio Link(s) related to one UE-UTRAN connection within a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE context.

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

8.3.4.2 Successful Operation

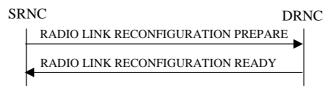


Figure 10: Synchronised Radio Link Reconfiguration Preparation procedure, Successful Operation

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

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

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

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

DCH Modification:

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

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

support DRAC, DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]

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

DCH Addition:

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

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

- The DRNS shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if at least one DSCH or USCH exists in the new configuration.]
- [FDD If the *DRAC Control* IE is set to "requested" in the *DCH Specific Info* IE for at least one DCH and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE for the FACH where the DRAC information is sent, for each Radio Link supported by a cell where DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]
- If the *DCH Specific Info* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed UL Rate* IE, the DRNS shall not limit the user rate of the downlink of the DCH.
- If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate of the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate. If the *DCH Specific Info* IE in the *DCH Information* IE does not include the *Guaranteed DL Rate* IE, the DRNS shall not limit the user rate of the uplink of the DCH.

DCH Deletion:

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

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

Physical Channel Modification:

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

- [FDD If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the DRNS shall apply this Uplink Scrambling Code to the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the DRNS shall apply the new Min UL Channelisation Code Length in the new configuration. The DRNS shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the UL when reserving resources for the uplink of the new configuration. The DRNS shall apply the new TFCS in the Uplink of the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, the DRNS shall apply the new Uplink DPCCH *Slot Format* to the new configuration.]
- [FDD If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the DRNS shall set the UL inner loop power control to the UL SIR target when the new configuration is being used.]
- [FDD If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the DRNS shall apply the value in the uplink of the new configuration.]

- [FDD If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the DRNS shall apply diversity according to the given value.]
- [FDD If the *UL DPCH Information* IE includes an *SSDT Cell Identity Length* IE and/or an *S-Field Length* IE, the DRNS shall apply the values in the new configuration.]

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

- [FDD If the *DL DPCH Information* IE includes *Number of DL Channelisation Codes IE*, the DRNS shall allocate given number of Downlink Channelisation Codes per Radio Link and apply the new Downlink Channelisation Code(s) to the new configuration. Each Downlink Channelisation Code allocated for the new configuration shall be included as a FDD DL Channelisation Code Number IE in the RADIO LINK RECONFIGURATION READY message when sent to the SRNC. If some Transmission Gap Pattern sequences using 'SF/2' method are already initialised in the DRNS, DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information IE* in the RADIO LINK RECONFIGURATION READY message in case the DRNS selects to change the Scrambling code change method for one or more DL Channelisation Code.]
- [FDD When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2*", and so on until the *pth* to "*PhCH number p*".]
- [FDD If the *DL DPCH Information* IE includes the *TFCS* IE, the DRNS shall use the *TFCS* IE for the DL when reserving resources for the downlink of the new configuration. The DRNS shall apply the new TFCS in the Downlink of the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *DL DPCH Slot Format* IE, the DRNS shall apply the new slot format used in DPCH in DL.]
- [FDD If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE, the DRNS shall apply the new signalling mode of the TFCI.]
- [FDD If the *DL DPCH Information* IE includes the *Multiplexing Position* IE, the DRNS shall apply the new parameter to define whether fixed or flexible positions of transport channels shall be used in the physical channel.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to 'Used', the DRNS shall, if supported, use Limited Power Increase according to ref. [10] subclause 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to 'Not Used', the DRNS shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]
 - [FDD If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Length of TFC12* IE and the *Split type* IE is present with the value "Hard", then the DRNS shall assume the length of the TFCI (field 2) is 5 bits.]
 - [FDD If the RADIO LINK RECONFIGURATION PREPARE message includes *Split Type* IE, then the DRNS shall apply this information to the new configuration of TFCI.]
- [FDD If the *DL DPCH Information* IE includes the *Length of TFCI2* IE, the DRNS shall apply this information to the length of TFCI(field 2) in the new configuration.]

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

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

[TDD - UL/DL CCTrCH Modification]

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

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

- [TDD The DRNC shall include in the RADIO LINK RECONFIGURATION READY message DPCH information to be modified and the IEs modified if any of *Repetition Period* IE, *Repetition Length* IE, *TDD DPCH Offset* IE or timeslot information was modified. The DRNC shall include timeslot information and the IEs modified if any of [3.84Mcps TDD Midamble Shift and Burst Type IE, Time Slot IE], [1.28Mcps TDD Midamble Shift LCR IE, Time Slot LCR IE], TFCI Presence IE or Code information was modified. The DRNC shall include code information if [3.84Mcps TDD TDD Channelisation Code IE] and/or [1.28Mcps TDD TDD Channelisation Code LCR IE] was modified.]
- [1.28Mcps TDD If the *UL CCTrCH to Modify* IE includes the *UL SIR Target* IE, the DRNS shall use the value for the UL inner loop power control according [12] and [22] when the new configuration is being used.]

[TDD - UL/DL CCTrCH Addition]

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

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

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

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

[TDD – UL/DL CCTrCH Deletion]

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

SSDT Activation/Deactivation:

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

DL Power Control:

- [FDD - If the *RL Information* IE includes the *DL Reference Power* IEs and power balancing is active, DRNS shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported, at the CFN in the RADIO LINK RECONFIGURATION COMMIT message, according to subclause 8.3.15, using the *DL Reference Power* IE. If the CFN modulo the value of the *Adjustment Period* IE is not equal to 0, the power balancing continues with the old reference power until the end of the current adjustment period, and the updated reference power shall be used from the next adjustment period.

[FDD - If updating of power balancing parameters by the RADIO LINK RECONFIGURATION PREPARE message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE in the RADIO LINK RECONFIGURATION READY message.]

DSCH Addition/Modification/Deletion:

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

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

If the RADIO LINK RECONFIGURATION PREPARE message includes any *DSCH to add* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.

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

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

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

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

- [FDD If the DSCH to Modify IE includes any DSCH Info IEs, then the DRNS shall treat them each as follows:]
 - [FDD If the *DSCH Info* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DNRS shall use them to update the set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]
 - [FDD If the *DSCH Info* IE includes any of the *Transport Format Set* IE or *BLER* IE, the DRNS shall apply the parameters to the new configuration.]
 - [FDD If the DSCH Info IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]
- [FDD If the *DSCH to Modify* IE includes the *PDSCH RL ID* IE, then the DRNS shall use it as the new DSCH RL identifier.]
- [FDD If the indicated PDSCH RL ID is in the DRNS and there was no DSCH-RNTI allocated to the UE
 Context, the DRNC shall allocate a DSCH-RNTI to the UE Context and include the DSCH-RNTI IE in the
 RADIO LINK RECONFIGURATION READY message.]
- [FDD If the indicated PDSCH RL ID is in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a new DSCH-RNTI to the UE Context, release the old DSCH-RNTI and include the *DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.]
- [FDD If the indicated PDSCH RL ID is not in the DRNS and there was a DSCH-RNTI allocated to the UE Context, the DRNC shall release this DSCH-RNTI.]
- [FDD If the *DSCH to Modify* IE includes the *Transport Format Combination Set* IE, then the DRNS shall use it as the new Transport Format Combination Set associated with the DSCH.]
- [TDD If the *DSCHs to Modify* IE includes the *CCTrCH Id* IE, then the DRNS shall map the DSCH onto the referenced DL CCTrCH.]
- [TDD If the *DSCHs to Modify* IE includes any of the *Allocation/Retention Priority* IE, *Scheduling Priority Indicator* IE or *TrCH Source Statistics Descriptor* IE, the DNRS shall use them to update the set of DSCH Priority classes each of which is associated with a set of supported MAC-c/sh SDU lengths.]

- [TDD If the *DSCHs to Modify* IE includes any of the *Transport Format Set* IE or *BLER* IE, the DRNS shall apply the parameters to the new configuration.]
- [TDD If the *DSCHs to Modify* IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DSCHs.]
- [TDD The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a DSCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]
- [FDD If the *DSCHs to Modify* IE includes the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC Active in the UE", the DRNS shall activate enhanced DSCH power control in accordance with ref. [10] subclause 5.2.2, if supported, using either:]
 - [FDD the SSDT Cell Identity for EDSCHPC IE in RL Information IE, if the SSDT Cell Identity IE is not included in the RL Information IE or]
 - [FDD the SSDT Cell Identity IE in the RL Information IE, if both the SSDT Cell Identity IE and the SSDT Cell Identity for EDSCHPC are included in the RL Information IE.]

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

- [FDD - If the *DSCHs to Modify* IE includes the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC not Active in the UE", the DRNS shall deactivate enhanced DSCH power control in the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes a *DSCHs to Delete* IE requesting the deletion of all DSCH resources for the UE Context, then the DRNC shall release the DSCH-RNTI allocated to the UE Context, if there was one.]

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

[TDD] USCH Addition/Modification/Deletion

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

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

If the RADIO LINK RECONFIGURATION PREPARE message includes any *USCH to add* IE, then the DRNS may use the *Traffic Class* IE to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.

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

- If the USCH to Modify IE includes any of the Allocation/Retention Priority IE, Scheduling Priority Indicator IE or TrCH Source Statistics Descriptor IE, the DNRS shall use them to update the set of USCH Priority classes.
- If the USCH to Modify IE includes any of the CCTrCH Id IE, Transport Format Set IE, BLER IE or RB Info IE, the DRNS shall apply the parameters to the new configuration.
- If the *USCHs to Modify* IE includes the *Traffic Class* IE, the DRNS may use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related USCHs.
- [TDD The DRNC shall include the *Secondary CCPCH Info TDD* IE in the RADIO LINK RECONFIGURATION READY message if a USCH is added and at least one DCH exists in the new configuration. The DRNC shall also include the *Secondary CCPCH Info TDD* IE in the RADIO LINK

RECONFIGURATION READY message if the SHCCH messages for this radio link will be transmitted over a different secondary CCPCH than selected by the UE from system information.]

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

RL Information:

[FDD- If the *RL Information* IE includes the *DL DPCH Timing Adjustment* IE, the DRNS shall adjust the timing of the radio link accordingly in the new configuration.]

HS-DSCH Information Addition/Modification/Deletion:

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

If the RADIO LINK RECONFIGURATION PREPARE message includes the HS-PDSCH RL ID IE, then:

- If the indicated HS-PDSCH RL ID is in the DRNS and there was no HS-DSCH-RNTI allocated to the UE Context, the DRNC shall allocate an HS-DSCH-RNTI to the UE Context and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.
- If the indicated HS-PDSCH RL ID is in the DRNS and there was an HS-DSCH-RNTI allocated to the UE Context, the DRNC shall allocate a new HS-DSCH-RNTI to the UE Context, release the old HS-DSCH-RNTI and include the *HS-DSCH-RNTI* IE in the RADIO LINK RECONFIGURATION READY message.
- If the indicated HS-PDSCH RL ID is not in the DRNS and there was an HS-DSCH-RNTI allocated to the UE Context, the DRNC shall release this HS-DSCH-RNTI.

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message includes the *Measurement Reporting Cycle* IE in the *HS-DSCH Information To Modify* IE, then the DRNS shall use the indicated Measurement Feedback Reporting Cycle value in the new configuration.]

If the RADIO LINK RECONFIGURATION PREPARE message includes an *HS-DSCH Information to Delete* IE requesting the deletion of all HS-DSCH resources for the UE Context, then the DRNC shall release the HS-DSCH-RNTI allocated to the UE Context, if there was one.

General

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transport Layer Address* IE and *Binding ID* IE in the *DSCHs to Modify*, *DSCHs to Add*, [TDD - *USCHs to Modify*, *USCHs to Add*] or in the *RL Specific DCH Information* IEs, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

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

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

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

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

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

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

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

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

8.3.4.3 Unsuccessful Operation

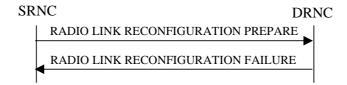


Figure 11: Synchronised Radio Link Reconfiguration Preparation procedure, Unsuccessful Operation

If the DRNS cannot reserve the necessary resources for all the new DCHs of a set of co-ordinated DCHs requested to be added, it shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration Preparation procedure fails for one or more RLs the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure.

Typical cause values are:

Radio Network Layer Causes:

- UL Scrambling Code Already in Use;
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Requested Configuration not Supported;
- Number of DL Codes not Supported;
- Number of UL Codes not Supported;
- Dedicated Transport Channel Type not Supported;
- DL Shared Channel Type not Supported;
- [TDD UL Shared Channel Type not Supported];
- [FDD UL Spreading Factor not Supported];

- [FDD DL Spreading Factor not Supported];
- CM not Supported;
- RL Timing Adjustment not Supported.

Miscellaneous Causes:

- Control Processing Overload;
- Not enough User Plane Processing Resources.

8.3.4.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

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 DRNS shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as failed and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *DSCHs to Add* IE includes *Enhanced DSCH PC* IE and *DSCH to Modify* IE include the *Enhanced DSCH PC Indicator* IE set to "Enhanced DSCH PC not Active in the UE", then the DRNS shall deactivate enhanced DSCH power control in the new configuration.]

[FDD - If both the *DSCHs to Add* IE and the *DSCH to Modify* IE include *Enhanced DSCH PC* IE, then the DRNS shall ignore the *Enhanced DSCH PC* IE in the *DSCH to Add* IE.]

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs to Modify* IE or *DCHs to Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs to Modify* IE or *DCHs to Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the *RL Information* IE includes the *DL Reference Power* IEs, but the power balancing is not active in the indicated RL(s), the DRNS shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s) but the *RL Information* IE includes more than one *DL Reference Power* IEs, the DRNS shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the RADIO LINK RECONFIGURATIO PREPARE message does not include the *Split Type* IE but includes *TFCI Signalling Mode* IE set to "Split", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD – If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Length of TFC12* IE but the *Split type* IE is set to "Logical", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Split Type* IE set to the value "Hard" and the *Length of TFC12* IE set to the value "5", then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message does not include the *Split Type* IE but includes the *Length of TFC12* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.]

If the RADIO LINK RECONFIGURATION PREPARE message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE., and

not both are present for a transport bearer intended to be established, the DRNC shall regard the Synchronised Radio Link Reconfiguration Preparation procedure as failed and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

8.3.5 Synchronised Radio Link Reconfiguration Commit

8.3.5.1 General

This procedure is used to order the DRNS to switch to the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE context.

8.3.5.2 Successful Operation



Figure 12: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation

The DRNS shall switch to the new configuration previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure at the next coming CFN with a value equal to the value requested by the SRNC in the *CFN* IE when receiving the RADIO LINK RECONFIGURATION COMMIT message from the SRNC.

[FDD – If the *Active Pattern Sequence Information* IE is included in the RADIO LINK RECONFIGURATION COMMIT message, the *CM Configuration Change CFN* IE in the *Active Pattern Sequence Information* IE shall be ignored by the DRNS.]

When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1

In the case of a transport channel modification for which a new transport bearer was requested and established, the switch to the new transport bearer shall also take place at the indicated CFN. The detailed frame protocol handling during transport bearer replacement is described in [4], subclause 5.10.1 and in [32], subclause 5.3.1..

[FDD - If the RADIO LINK RECONFIGURATION COMMIT includes the *Active Pattern Sequence Information* IE, the DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences at the *CFN* IE. From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE repetitions shall be started when the indicated *TGCFN* IE elapses. The *CFN* IE and *TGCFN* IE for each sequence refer to the next coming CFN with that value. If the values of the *CFN* IE and the *TGCFN* IE are equal, the concerning Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CFN* IE.]

8.3.5.3 Abnormal Conditions

If a new transport bearer is required for the new configuration and it is not available at the requested CFN, the DRNS shall initiate the Radio Link Failure procedure.

8.3.6 Synchronised Radio Link Reconfiguration Cancellation

8.3.6.1 General

This procedure is used to order the DRNS to release the new configuration for the Radio Link(s) within the DRNS, previously prepared by the Synchronised Radio Link Reconfiguration Preparation procedure.

This procedure shall use the signalling bearer connection for the relevant UE context.

8.3.6.2 Successful Operation



Figure 13: Synchronised Radio Link Reconfiguration Cancellation procedure, Successful Operation

The DRNS 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 receiving the RADIO LINK RECONFIGURATION CANCEL message from the SRNC. When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 3.1.

8.3.6.3 Abnormal Conditions

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8.3.7 Unsynchronised Radio Link Reconfiguration

8.3.7.1 General

The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a DRNS.

The procedure is used when there is no need to synchronise the time of the switching from the old to the new radio link configuration in the cells used by the UE-UTRAN connection within the DRNS.

This procedure shall use the signalling bearer connection for the relevant UE context.

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

8.3.7.2 Successful Operation

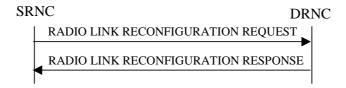


Figure 14: Unsynchronised Radio Link Reconfiguration procedure, Successful Operation

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

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

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

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

DCH Modification:

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

- If the *DCHs to Modify* IE includes multiple *DCH Specific Info* IEs, then the DRNS shall treat the DCHs as a set of co-ordinated DCHs. The DRNS shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCHs to Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs to Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs to Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCH Specific Info* IE includes on the *Transport Format Set* IE for the UL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCH Specific Info* IE includes on the *Transport Format Set* IE for the DL of a DCH to be modified, the DRNS shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCH Specific Info* IE includes the *Frame Handling Priority* IE, the DRNS should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the DRNS once the new configuration has been activated.
- If the *DCH Specific Info* IE includes the *Traffic Class* IE, the DRNC should use this information to determine the transport bearer characteristics to apply between DRNC and Node B for the related DCH or set of co-ordinated DCHs.
- [FDD If the *DRAC Control* IE is present and set to "requested" in *DCH Specific Info* IE for at least one DCH, and if the DRNS supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE for the FACH where the DRAC information is sent, for each Radio Link supported by a cell where DRAC is active. If the DRNS does not support DRAC, the DRNC shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.]
- [TDD If the *DCH Specific Info* IE includes the *CCTrCH ID* IE for the UL, the DRNS shall map the DCH onto the referenced UL CCTrCH.]
- [TDD If the *DCH Specific Info* IE includes the *CCTrCH ID* IE for the DL, the DRNS shall map the DCH onto the referenced DL CCTrCH.]
- If the *DCH Specific Info* IE includes the *Guaranteed Rate Information* IE, the DRNS shall treat the included IEs according to the following:
 - If the *Guaranteed Rate Information* IE includes the *Guaranteed UL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the uplink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user rate in the uplink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the uplink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.
- If the *Guaranteed Rate Information* IE includes the *Guaranteed DL Rate* IE, the DRNS shall apply the new Guaranteed Rate in the downlink of this DCH in the new configuration. The DRNS may decide to request the SRNC to limit the user in the downlink of the DCH at any point in time after activating the new configuration. The DRNS may request the SRNC to reduce the user rate of the downlink of the DCH below the guaranteed bit rate, however, whenever possible the DRNS should request the SRNC to reduce the user rate between the maximum bit rate and the guaranteed bit rate.

DCH Addition:

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

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

DCH Deletion:

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

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

Physical Channel Modification:

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

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

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

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

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

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

[TDD - UL/DL CCTrCH Modification]

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

[TDD – UL/DL CCTrCH Deletion]

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

DL Power Control:

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *DL Reference Power Information* IE and the power balancing is active, the DRNS shall update the reference power of the power balancing in the indicated RL(s), if updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported, using the *DL Reference Power Information* IE in the RADIO LINK RECONFIGURATION REQUEST message. The updated reference power shall be used from the next adjustment period.]

[FDD – If updating of power balancing parameters by the RADIO LINK RECONFIGURATION REQUEST message is supported by the DRNS, the DRNC shall include the *DL Power Balancing Updated Indicator* IE in the *RL Information Response* IE in the RADIO LINK RECONFIGURATION RESPONSE message.]

General:

If the RADIO LINK RECONFIGURATION REQUEST message includes the *RL Specific DCH Information* IE, the DRNC may use the transport layer address and the binding identifier received from the SRNC when establishing a transport bearer for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

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

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

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

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

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

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

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

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

8.3.7.3 Unsuccessful Operation

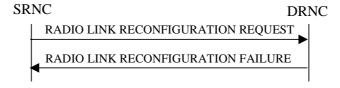


Figure 15: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

If the DRNS cannot allocate the necessary resources for all the new DCHs of a set of co-ordinated DCHs requested to be added, 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 DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC, indicating the reason for failure.

Typical cause values are:

Radio Network Layer Causes:

- UL Scrambling Code Already in Use;
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Requested Configuration not Supported;
- CM not Supported.

Miscellaneous Causes:

- Control Processing Overload;
- Not enough User Plane Processing Resources.

8.3.7.4 Abnormal Conditions

If only a subset of all the DCHs belonging to a set of co-ordinated DCHs is requested to be deleted, the DRNS shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed, and the DRNC shall send the RADIO LINK RECONFIGURATION FAILURE message to the SRNC.

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 DRNS shall regard the Unsynchronised Radio Link Reconfiguration procedure as failed, and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

If the RADIO LINK RECONFIGURATION REQUEST message includes a *DCHs to Modify* IE or *DCHs to Add* IE with multiple *DCH Specific Info* IEs, and if the DCHs in the *DCHs to Modify* IE or *DCHs to Add* IE do not have the same *Transmission Time Interval* IE in the *Semi-static Transport Format Information* IE, then the DRNC shall reject the procedure using the RADIO LINK RECONFIGURATION FAILURE message.

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *DL Reference Power Information* IE, but the power balancing is not active in the indicated RL(s), the DRNS shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Common" in the existing RL(s) but the *DL Reference Power Information* IE includes the *Individual DL Reference Power Information* IE, the DRNS shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

[FDD - If the power balancing is active with the Power Balancing Adjustment Type of the UE Context set to "Individual" in the existing RL(s) but the *DL Reference Power Information* IE includes the *Common DL Reference Power* IE, the DRNS shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed and the DRNC shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Power Balancing status not compatible".]

If the RADIO LINK RECONFIGURATION REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE when establishing a transport bearer for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE., and not both are present for a transport bearer intended to be established, the DRNC shall regard the Unsynchronised Radio Link Reconfiguration procedure as failed, and the DRNC shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

8.3.8 Physical Channel Reconfiguration

8.3.8.1 General

The Physical Channel Reconfiguration procedure is used by the DRNC to request to SRNC the reconfiguration of one of its physical channels.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Physical Channel Reconfiguration procedure shall not be initiated if a Prepared Reconfiguration exists as defined in subclause 3.1, or if a Synchronised Radio Link Reconfiguration Preparation procedure, Unsynchronised Radio Link Reconfiguration procedure or Radio Link Deletion procedure is ongoing.

8.3.8.2 Successful Operation

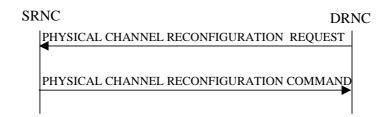


Figure 16: Physical Channel Reconfiguration procedure, Successful Operation

When the DRNC detects the need to modify one of its physical channels, it shall send a PHYSICAL CHANNEL RECONFIGURATION REQUEST to the SRNC.

The message contains the new value of the physical channel parameter(s) that shall be reconfigured and in which radio link

[FDD- If compressed mode is prepared or active and at least one of the downlink compressed mode methods is 'SF/2', the DRNC shall include the *Transmission Gap Pattern Sequence Scrambling Code Information* IE in the *DL Code Information* IE in the PHYSICAL CHANNEL RECONFIGURATION REQUEST message indicating for each DL Channelisation Code whether the alternative scrambling code will be used or not if the downlink compressed mode methods 'SF/2' is activated.]

[TDD – The SRNC shall apply the new values for any of [3.84Mcps TDD - TDD Channelisation Code IE, Midamble shift and Burst Type IE, Time Slot IE], [1.28Mcps TDD - TDD Channelisation Code LCR IE, Midamble shift LCR IE, Time Slot LCR IE], TDD Physical Channel Offset IE, Repetition Period IE, Repetition Length IE, or TFCI presence IE included in the UL DPCH Information IE given in the PHYSICAL CHANNEL RECONFIGURATION REQUEST message, otherwise the old values specified for this DPCH shall still apply.]

[TDD – The SRNC shall apply the new values for any of *TDD Channelisation Code* IE, *Midamble shift and Burst Type* IE, *Time Slot* IE, *TDD Physical Channel Offset* IE, *Repetition Period* IE, *Repetition Length* IE, or *TFCI presence* IE included in the *DL DPCH Information* IE given in the PHYSICAL CHANNEL RECONFIGURATION REQUEST message, otherwise the old values specified for this DPCH shall still apply.]

Upon reception of the PHYSICAL CHANNEL RECONFIGURATION REQUEST, the SRNC shall decide an appropriate execution time for the change. The SRNC shall respond with a PHYSICAL CHANNEL RECONFIGURATION COMMAND message to the DRNC that includes the *CFN* IE indicating the execution time.

At the CFN, the DRNS shall switch to the new configuration that has been requested, and release the resources related to the old physical channel configuration.

8.3.8.3 Unsuccessful Operation

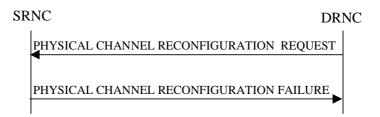


Figure 17: Physical Channel Reconfiguration procedure, Unsuccessful Operation

If the SRNC can not accept the reconfiguration request it shall send the PHYSICAL CHANNEL RECONFIGURATION FAILURE message to the DRNC, including the cause for the failure.

Typical cause values are:

Radio Network Layer Causes:

- Reconfiguration not Allowed.

8.3.8.4 Abnormal Conditions

If the DRNC receives any of the RADIO LINK RECONFIGURATION PREPARE, RADIO LINK RECONFIGURATION REQUEST, or RADIO LINK DELETION REQUEST messages while waiting for the PHYSICAL CHANNEL RECONFIGURATION COMMAND message, this shall be regarded as a Physical Channel Reconfiguration failure. These messages thus override the DRNC request for physical channel reconfiguration.

When the SRNC receives a PHYSICAL CHANNEL RECONFIGURATION REQUEST message while a Synchronised Radio Link Reconfiguration procedure, Unsynchronised Radio Link Reconfiguration procedure or Radio Link Deletion procedure is ongoing, it shall assume that receival of any of the messages RADIO LINK RECONFIGURATION PREPARE, RADIO LINK RECONFIGURATION REQUEST or RADIO LINK DELETION REQUEST by the DRNC has terminated the Physical Channel Reconfiguration procedure. No separate response message for the Physical Channel Reconfiguration procedure shall be returned by the SRNC in this situation.

8.3.9 Radio Link Failure

8.3.9.1 General

This procedure is started by the DRNS when one or more Radio Links [FDD - or Radio Link Sets][TDD - or CCTrCHs within a Radio Link] are no longer available.

This procedure shall use the signalling bearer connection for the relevant UE context.

The DRNC may initiate the Radio Link Failure procedure at any time after establishing a Radio Link.

8.3.9.2 Successful Operation

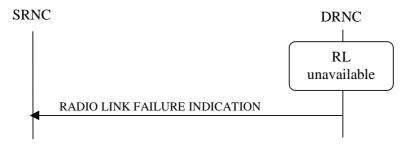


Figure 18: RL Failure procedure, Successful Operation

When DRNC detects that a one or more Radio Links [FDD - or Radio Link Sets] [TDD – or CCTrCHs within a Radio Link] are no longer available, it shall send the RL FAILURE INDICATION message to the SRNC. The message indicates the failed Radio Links or Radio Link Sets or CCTrCHs with the most appropriate cause values defined in the *Cause* IE. If the failure concerns one or more individual Radio Links the DRNS shall indicate the affected Radio Link(s) using the *RL Information* IE. [FDD - If the failure concerns one or more Radio Link Sets the DRNS shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE.] [TDD – If the failure concerns only the failure of one or more CCTrCHs within in a radio link the DRNS shall indicate the affected CCTrCHs using the *CCTrCH ID* IE].

When the RL Failure procedure is used to notify loss of UL synchronisation of a [FDD – Radio Link Set] [TDD – Radio Link or CCTrCHs within a Radio Link] on the Uu interface, the message shall be sent when indicated by the UL synchronisation detection algorithm defined in ref. [10] subclause 4.3 and [22] subclause 4.4.2, and with the cause value 'Synchronisation Failure'.

[FDD – When the Radio Link Failure procedure is used to indicate permanent failure in one or more Radio Links/Radio Link Sets due the occurrence of an UL or DL frame with more than one transmission gap caused by one or more compressed mode pattern sequences, the DL transmission shall be stopped and the RADIO LINK FAILURE INDICATION message shall be sent with the cause value 'Invalid CM Settings'. After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the DRNS shall not remove the Radio Link(s)/Radio Link Set(s) from the UE context, or the UE context itself.]

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 DRNS shall not remove the Radio Link from the UE context, or the UE context itself. When applicable, the allocation retention priorities associated to the transport channels shall be used by the DRNS to prioritise which Radio Links to indicate as unavailable to the SRNC.

Typical cause values are:

Radio Network Layer Causes:

- Synchronisation Failure;
- Invalid CM Settings.

Transport Layer Causes:

- Transport Resources Unavailable.

Miscellaneous Causes:

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

8.3.9.3 Abnormal Conditions

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8.3.10 Radio Link Restoration

8.3.10.1 General

This procedure is used to notify establishment and re-establishment of UL synchronisation on the Uu interface.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Radio Link Restoration procedure at any time after establishing a Radio Link.

8.3.10.2 Successful Operation



Figure 19: RL Restoration procedure, Successful Operation

The DRNC shall send the RADIO LINK RESTORE INDICATION message to the SRNC when indicated by the UL Uu synchronisation detection algorithm defined in ref. [10] subclause 4.3 and [22] subclause 4.4.2. [FDD – The algorithm in ref. [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 UL Uu synchronisation concerns one or more individual Radio Links the DRNC shall indicate the affected Radio Link(s) using the *RL Information* IE.] [TDD – If the re-established synchronisation concerns one or more individual CCTrCHs within a radio link the DRNS shall indicate the affected CCTrCHs using the *CCTrCH ID* IE.] [FDD - If the re-established UL Uu synchronisation concerns one or more Radio Link Sets the DRNC shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE.]

8.3.10.3 Abnormal Conditions

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8.3.11 Dedicated Measurement Initiation

8.3.11.1 General

This procedure is used by an SRNS to request the initiation of dedicated measurements in a DRNS.

This procedure shall use the signalling bearer connection for the relevant UE context.

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

8.3.11.2 Successful Operation

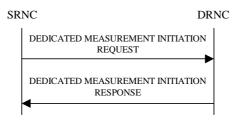


Figure 20: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the SRNC to the DRNC.

Upon reception, the DRNC shall initiate the requested dedicated measurement according to the parameters given in the request.

If the *Dedicated Measurement Object Type* IE is set to "RL", measurement results shall be reported for all the indicated Radio Links.

[TDD – If the *DPCH ID* IE is provided within the RL Information the measurement request shall apply for the requested physical channel individually. If no *DPCH ID* IE is provided within the RL Information the measurement request shall apply for one existing DPCH per CCTrCH in each used time slot of the Radio Link, provided the measurement type is applicable to this DPCH.]

[FDD - If the *Dedicated Measurement Object Type* IE is set to "RLS", measurement results shall be reported for all the indicated Radio Link Sets.]

[FDD - If the *Dedicated Measurement Object Type* IE is set to "ALL RL", measurement results shall be reported for all current and future Radio Links within the UE Context.]

[TDD - If the *Dedicated Measurement Object Type* IE is set to "ALL RL", measurement results shall be reported for one existing DPCH per CCTrCH in each used time slot of current and future Radio Links within the UE Context, provided the measurement type is applicable to the respective DPCH.]

[FDD - If the *Dedicated Measurement Object Type* IE is set to "ALL RLS", measurement results shall be reported for all the existing and future Radio Link Sets within the UE Context.]

If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the measurement report or in the measurement response, the latter only in the case the *Report Characteristics* IE is set to 'On-Demand'. The reported CFN shall be the CFN at the time when the dedicated measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [26].

If the *CFN* IE is provided, it indicates the frame for which the first measurement shall be provided. The provided measurement value shall be the one reported by the layer 3 filter referred to as point C in the measurement model [26].

Report characteristics

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

If the Report Characteristics IE is set to 'On-Demand', the DRNS shall report the measurement result immediately.

If the *Report Characteristics* IE is set to 'Periodic', the DRNS shall periodically initiate the Dedicated Measurement Report procedure for this measurement, with the requested report periodicity.

If the *Report Characteristics* IE is set to 'Event A', the DRNS shall initiate the Dedicated 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 DRNC shall use the value zero for the hysteresis time.

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

If the *Report Characteristics* IE is set to 'Event C', the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising/falling time has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to 'Event D', the DRNS shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time. . After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the rising/falling time has elapsed since the previous event reporting.

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

Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the DRNS shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the DRNS shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If 'Measurement Threshold 2' is not present, the DRNS shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the DRNC shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is not set to 'On-Demand', the DRNS is required to perform reporting for a dedicated measurement object, in accordance with the conditions provided in the DEDICATED MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no dedicated measurement object(s) for which a measurement is defined exists any more the DRNS shall terminate the measurement locally without reporting this to the SRNC.

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 DRNS shall initiate the Dedicated 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 dedicated 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, the unit used for M_n is the same unit as the reported unit in the DEDICATED MEASUREMENT INITIATION RESPONSE, DEDICATED MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn).

 $a = 1/2^{(k/2)}$, 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 DRNS was able to initiate the measurement requested by the SRNS it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message. The message shall include the same Measurement Id that was used in the DEDICATED MEASUREMENT INITIATION REQUEST message.

Only in the case when the *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 DEDICATED MEASUREMENT INITIATION REQUEST message.

8.3.11.3 Unsuccessful Operation

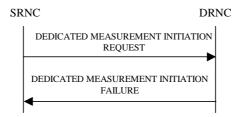


Figure 21: Dedicated Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated, the DRNC shall send a DEDICATED MEASUREMENT INITIATION FAILURE message. 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:

Radio Network Layer Causes:

- Measurement not Supported For The Object
- Measurement Temporarily not Available

Miscellaneous Causes:

- Control Processing Overload
- HW Failure

8.3.11.4 Abnormal Conditions

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

Table 4: Allowed Dedicated Measurement Type and Report Characteristics Type combinations

Dedicated Measurement Type	Report Characteristics Type								
	On Demand	Periodic	Event A	Event B	Event C	Event D	Event E	Event F	On Modification
SIR	X	Χ	Х	Х	Х	Х	Х	Х	
SIR Error	X	Х	Х	Х	Х	Х	Х	Х	
Transmitted Code Power	Х	Х	Х	Х	Х	Х	Х	Х	
RSCP	X	Х	Х	Х	Х	Х	Х	Х	
Rx Timing Deviation	Х	Х	Х	Х	Х	Х	Х	Х	
Round Trip Time	Х	Х	Х	Х	Х	Х	Х	Х	

If the Dedicated Measurement Type received in the *Dedicated Measurement Type* IE is not defined in ref. [11] or [14] 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 DRNS shall regard the Dedicated Measurement Initiation procedure as failed.

8.3.12 Dedicated Measurement Reporting

8.3.12.1 General

This procedure is used by the DRNS to report results of measurements requested by the SRNS with the Dedicated Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Reporting procedure at any time after establishing a Radio Link.

8.3.12.2 Successful Operation



Figure 22: Dedicated Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the DRNS shall initiate the Dedicated Measurement Reporting procedure. If the measurement was initiated (by the Dedicated Measurement Initiation procedure) for multiple dedicated measurement objects, the DRNC may include dedicated measurement values in the *Dedicated Measurement Value Information* IE for multiple objects in the DEDICATED MEASUREMENT REPORT message.

The *Dedicated Measurement Id* IE shall be set to the Dedicated Measurement Id provided by the SRNC when initiating the measurement with the Dedicated Measurement Initiation procedure.

If the achieved measurement accuracy does not fulfil the given accuracy requirement specified in ref. [23] and [24], the Measurement not available shall be reported in the *Dedicated Measurement Value Information* IE.

8.3.12.3 Abnormal Conditions

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8.3.13 Dedicated Measurement Termination

8.3.13.1 General

This procedure is used by the SRNS to terminate a measurement previously requested by the Dedicated Measurement Initiation procedure.

This procedure shall use the signalling bearer connection for the relevant UE Context.

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

8.3.13.2 Successful Operation



Figure 23: Dedicated Measurement Termination procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT TERMINATION REQUEST message, sent from the SRNC to the DRNC.

Upon reception, the DRNS shall terminate reporting of measurements corresponding to the received Dedicated Measurement Id.

8.3.13.3 Abnormal Conditions

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8.3.14 Dedicated Measurement Failure

8.3.14.1 General

This procedure is used by the DRNS to notify the SRNS that a measurement previously requested by the Dedicated Measurement Initiation procedure can no longer be reported.

This procedure shall use the signalling bearer connection for the relevant UE Context.

The DRNC may initiate the Dedicated Measurement Failure procedure at any time after establishing a Radio Link.

8.3.14.2 Successful Operation



Figure 24: Dedicated Measurement Failure procedure, Successful Operation

This procedure is initiated with a DEDICATED MEASUREMENT FAILURE INDICATION message, sent from the DRNC to the SRNC, to inform the SRNC that a previously requested dedicated measurement can no longer be reported. The DRNC has locally terminated the indicated measurement.

Typical cause values are:

Miscellaneous Causes:

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

8.3.14.3 Abnormal Conditions

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8.3.15 Downlink Power Control [FDD]

8.3.15.1 General

The purpose of this procedure is to balance the DL transmission powers of the radio links for one UE.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Downlink Power Control procedure may be initiated by the SRNC at any time after establishing a Radio Link. If the SRNC has initiated deletion of the last Radio Link in this DRNS the Downlink Power Control procedure shall not be initiated.

8.3.15.2 Successful Operation



Figure 25: Downlink Power Control procedure, Successful Operation

The Downlink Power Control procedure is initiated by the SRNC sending a DL POWER CONTROL REQUEST message to the DRNC.

The *Power Adjustment Type* IE defines the characteristic of the power adjustment.

If the value of the *Power Adjustment Type* IE is "Common", the Power Balancing Adjustment Type of the UE Context shall be set to "Common". As long as the Power Balancing Adjustment Type of the UE Context is set to "Common", the DRNS shall perform the power adjustment (see below) for all existing and future radio links for the UE context and use a common DL reference power level.

If the value of the *Power Adjustment Type* IE is "Individual", the Power Balancing Adjustment Type of the UE Context shall be set to "Individual". The DRNS shall perform the power adjustment (see below) for all radio links addressed in the message using the given DL Reference Power per RL. If the Power Balancing Adjustment Type of the UE Context was set to "Common" before this message was received, power balancing on all radio links not addressed by the DL POWER CONTROL REQUEST message shall remain to be executed in accordance with the existing power balancing parameters which are now considered RL individual parameters. Power balancing will not be started on future radio links without a specific request.

If the value of the *Power Adjustment Type* IE is "None", the Power Balancing Adjustment Type of the UE Context shall be set to "None" and the DRNS shall suspend on going power adjustments for all radio links for the UE context.

If the *Inner Loop DL PC Status* IE is present and set to 'Active', the DRNS shall activate inner loop DL power control for all radio links for the UE context. If the *Inner Loop DL PC Status* IE is present and set to 'Inactive', the DRNS shall deactivate inner loop DL power control for all radio links for the UE context according to ref. [10].

Power Adjustment

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

$$\sum P_{bal} = (1-r)(P_{ref} + P_{P-CPICH} - P_{init})$$
 with an accuracy of $\pm 0.5~\mathrm{dB}$

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, $P_{P-CPICH}$ is the power used on the primary CPICH, Pinit is the code power of the last slot of the previous adjustment period and r is given by the Adjustment Ratio IE. If the last slot of the previous adjustment period is within a transmission gap due to compressed mode, Pinit shall be set to the same value as the code power of the slot just before the transmission gap.

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 DRNC.

The power adjustments shall be started at the first slot of a frame with CFN modulo the value of *Adjustment Period* IE equal to 0 and shall be repeated for every adjustment period and shall be restarted at the first slot of a frame with CFN=0, until a new DL POWER CONTROL REQUEST message is received or the RL is deleted.

8.3.15.3 Abnormal Conditions

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8.3.16 Compressed Mode Command [FDD]

8.3.16.1 General

The Compressed Mode Command procedure is used to activate or deactivate the compressed mode in the DRNS for one UE-UTRAN connection. This procedure shall use the signalling bearer connection for the relevant UE context.

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

8.3.16.2 Successful Operation



Figure 26: Compressed Mode Command procedure, Successful Operation

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

If the values of the *CM Configuration Change CFN* IE and the *TGCFN* IE are equal, the concerning Transmission Gap Pattern Sequence shall be started immediately at the CFN with a value equal to the value received in the *CM Configuration Change CFN* IE.

8.3.16.3 Abnormal Conditions

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8.3.17 Downlink Power Timeslot Control [TDD]

8.3.17.1 General

The purpose of this procedure is to enable the DRNS to use the indicated DL Timeslot ISCP values when deciding the DL TX Power for each timeslot.

This procedure shall use the signalling bearer connection for the relevant UE context.

The Downlink Power Timeslot Control procedure can be initiated by the SRNC at any time after establishing a Radio Link. If the SRNC has initiated deletion of the last Radio Link in this DRNS, the Downlink Power Timeslot Control procedure shall not be initiated.

8.3.17.2 Successful Operation



Figure 26A: Downlink Power Timeslot Control procedure, Successful Operation

The Downlink Power Timeslot Control procedure is initiated by the SRNC sending a DL POWER TIMESLOT CONTROL REQUEST message to the DRNC.

Upon reception, the DRNS shall use the indicated DL Timeslot ISCP value when deciding the DL TX Power for each timeslot as specified in [22], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged.

If the *Primary CCPCH RSCP* IE is present, the DRNS should use the indicated value for HS-DSCH scheduling and transmit power adjustment.

8.3.17.3 Abnormal Conditions

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8.3.18 Radio Link Pre-emption

8.3.18.1 General

This procedure is started by the DRNS when resources need to be freed.

This procedure shall use the signalling bearer connection for the UE context that owns the RL to be pre-empted.

The DRNS may initiate the Radio Link Pre-emption procedure at any time after establishing a Radio Link.

8.3.18.2 Successful Operation

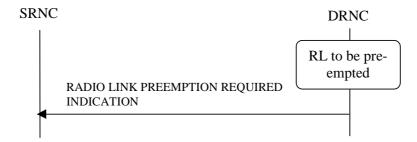


Figure 26B: RL Pre-emption procedure, Successful Operation

When DRNC detects that a one or more Radio Links should be pre-empted, see Annex A, it shall send the RADIO LINK PREEMPTION REQUIRED INDICATION message to the SRNC. If all Radio Links for an UE Context should be pre-empted, the *RL Information* IE shall be omitted. If one or several but not all Radio Links should be pre-empted for an UE Context, the Radio Links that should be pre-empted shall be indicated in the *RL Information* IE. The Radio Link(s) that should be pre-empted, should be deleted by the SRNC.

8.3.18.3 Abnormal Conditions

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8.3.19 Radio Link Congestion

8.3.19.1 General

This procedure is started by the DRNS when RL congestion is detected and the rate of one or more DCHs need to be limited in the UL and/or DL. This procedure is also used by the DRNC to indicate to the SRNC any change of the UL/DL DCH congestion situation. This procedure shall use the signalling bearer connection for the relevant UE context..

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

8.3.19.2 Successful Operation



Figure 26C: Radio Link Congestion procedure, Successful Operation

Start of UL/DL DCH Congestion Situation

When the DRNC detects a start of a UL/DL DCH congestion situation and prefers the rate of one or more DCHs to be limited below the maximum rate currently configured in the UL/DL TFS, it shall send the RADIO LINK CONGESTION INDICATION message to the SRNC. The DRNC shall indicate the cause of the congestion in the *Congestion Cause* IE and shall indicate all the Radio Links for which the rate of a DCH needs to be reduced.

When receiving the RADIO LINK CONGESTION INDICATION message the SRNC should reduce the rate in accordance with the indicated congestion cause and the indicated allowed rate(s) for a DCH.

Change of UL/DL DCH Congestion Situation

The DRNC shall indicate any change of the UL/DL DCH congestion situation by sending the RADIO LINK CONGESTION INDICATION message in which the new allowed rate of the DCHs are indicated by the *Allowed Rate Information* IE. In the case that the new allowed rate is lower than a previously indicated allowed rate, the *Congestion Cause* IE, indicating the cause of the congestion, shall also be included.

When receiving a RADIO LINK CONGESTION INDICATION message indicating a further rate decrease on any DCH(s) on any RL, the SRNC should reduce the rate in accordance with the indicated congestion cause and the indicated allowed rate(s) for a DCH.

End of UL/DL DCH Congestion Situation

End of an UL DCH congestion situation for a specific RL shall be indicated by including the TF corresponding to the highest data rate in the *Allowed UL Rate* IE in the *Allowed Rate Information* IE for the concerning RL. End of a DL DCH congestion situation for a specific RL shall be indicated by including the TF with the highest data rate in the *Allowed DL Rate* IE in the *Allowed Rate Information* IE for the concerning RL.

8.3.19.3 Abnormal Conditions

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8.3.20 Radio Link Activation

8.3.20.1 General

This procedure is used to activate or de-activate the DL transmission on the Uu interface regarding selected RLs.

8.3.20.2 Successful Operation



Figure 26D: Radio Link Activation procedure

This procedure is initiated by sending the RADIO LINK ACTIVATION COMMAND message from the SRNC to the DRNC. This procedure shall use the signalling bearer connection for the relevant UE context.

Upon reception, the DRNS shall for each concerning RL:

- if the Delayed Activation Update IE indicates "Activate":
 - if the Activation Type IE equals "Unsynchronised":
 - [FDD- start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4].]
 - [TDD- start transmission on the new RL immediately as specified in [4].]
 - if the *Activation Type* IE equals "Synchronised":
 - [FDD- start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [4], however never before the CFN indicated in the *Activation CFN* IE.]
 - [TDD- start transmission on the new RL at the CFN indicated in the *Activation CFN* IE as specified in [4].]
 - [FDD- the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH of the RL when starting transmission until either UL synchronisation on the Uu interface is achieved for the RLS or power balancing is activated. During this period no inner loop power control shall be performed and, unless activated by the DL POWER CONTROL REQUEST message, no power balancing shall be performed. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and downlink power balancing adjustments (see 8.3.7).]
 - [TDD- the DRNS shall apply the power level indicated in the *Initial DL Tx Power* IE to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu interface 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], subclause 4.2.3.3).]
 - [FDD- if the *Propagation Delay* IE is included, the DRNS may use this information to speed up the detection of UL synchronisation on the Uu interface.]
 - [FDD- if the *First RLS Indicator* IE is included, it indicates if the concerning RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the DRNS to determine the initial TPC pattern in the DL of the concerning RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]
- if the *Delayed Activation Update* IE indicates "Deactivate":

- stop DL transmission immediately if the Deactivation Type IE equals "Unsynchronised", or at the CFN indicated by the Deactivation CFN IE if the Deactivation Type IE equals "Synchronised".

8.3.20.3 Abnormal Conditions

[FDD- If the *Delayed Activation Update* IE is included in the RADIO LINK ACTIVATION COMMAND message, it indicates "Activate" and the *First RLS Indicator* IE is not included, the DRNC shall initiate the ERROR INDICATION procedure.]

8.4 Common Transport Channel Procedures

8.4.1 Common Transport Channel Resources Initialisation

8.4.1.1 General

The Common Transport Channel Resources Initialisation procedure is used by the SRNC for the initialisation of the Common Transport Channel user plane towards the DRNC and/or for the initialisation of the Common Transport Channel resources in the DRNC to be used by a UE.

This procedure shall use the connectionless mode of the signalling bearer.

8.4.1.2 Successful Operation

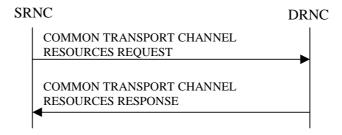


Figure 27: Common Transport Channel Resources Initialisation procedure, Successful Operation

The SRNC initiates the procedure by sending the message COMMON TRANSPORT CHANNEL RESOURCES REQUEST to the DRNC.

If the value of the *Transport Bearer Request Indicator* IE is set to "Bearer Requested", the DRNC shall store the received *Transport Bearer ID* IE. The DRNC may use the *Transport Layer Adress* and *Binding ID* IEs included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message received from the SRNC when establishing a transport bearer for the common transport channel. In addition, the DRNC shall include its own *Binding ID* IE and *Transport Layer Address* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the value of the *Transport Bearer Request Indicator* IE is set to" Bearer not Requested", the DRNC shall use the transport bearer indicated by the *Transport Bearer ID* IE.

If the *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall allocate a C-RNTI for the indicated cell and include the *C-RNTI* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall include the *FACH Info for UE Selected S-CCPCH* IE valid for the cell indicated by the *C-ID* IE and the corresponding *C-ID* IEin the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. If the *C-ID* IE is not included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall include the *FACH Info for UE Selected S-CCPCH* IE valid for the cell where the UE is located and the corresponding *C-ID* IE. The DRNC shall include the *FACH Scheduling Priority* IE and *FACH Initial Window Size* IE in the *FACH Flow Control Information* IE of the *FACH Info for UE Selected S-CCPCH* IE for each priority class that the DRNC has determined shall be used. The DRNC may include several *MAC-c/sh SDU Length* IEs for each priority class.

If the DRNS has any RACH, [FDD - CPCH,] and/or FACH resources previously allocated for the UE in another cell than the cell where resources are currently being allocated, the DRNS shall release the previously allocated RACH, [FDD - CPCH,] and/or FACH resources.

If the DRNS has successfully reserved the required resources, the DRNC shall respond to the SRNC with the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message.

If the *Permanent NAS UE Identity* IE is present in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNS shall store the information for the considered UE Context for the life-time of the UE Context.

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message includes a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is available in the DRNC for the considered UE Context, the DRNC shall use this information to determine whether it can reserve resources on a common transport channel in this cell or not.

8.4.1.3 Unsuccessful Operation

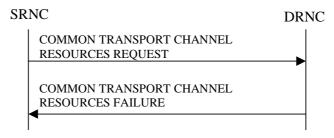


Figure 28: Common Transport Channel Resources Initialisation procedure, Unsuccessful Operation

If the *Transport Bearer Request Indicator* IE is set to "Bearer Requested" and the DRNC is not able to provide a Transport Bearer, the DRNC shall respond to the SRNC with the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message, indicating the cause of the failure.

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message contains a *C-ID* IE corresponding to a cell reserved for operator use and the Permanent NAS UE Identity is not available for the considered UE Context, the DRNC shall consider the procedure as failed and send the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message.

Typical cause values are:

Radio Network Layer Causes:

- Common Transport Channel Type not Supported;
- Cell reserved for operator use.

Transport Layer Causes:

- Transport Resource Unavailable.

8.4.1.4 Abnormal Conditions

If the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message contains the *Transport Layer Address* IE or the *Binding ID* IE, and not both are present for a transport channel intended to be established, the DRNC shall reject the procedure using the COMMON TRANSPORT CHANNEL RESOURCES FAILURE message.

8.4.2 Common Transport Channel Resources Release

8.4.2.1 General

This procedure is used by the SRNC to request release of Common Transport Channel Resources for a given UE in the DRNS. The SRNC uses this procedure either to release the UE Context from the DRNC (and thus both the D-RNTI and the C-RNTI) or to release only the C-RNTI.

This procedure shall use the connectionless mode of the signalling bearer.

8.4.2.2 Successful Operation



Figure 29: Common Transport Channel Resources Release procedure, Successful Operation

The SRNC initiates the Common Transport Channel Resources Release procedure by sending the message COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST to the DRNC. At the reception of the message the DRNC shall release the UE Context identified by the D-RNTI and all its related RACH, [FDD - CPCH,] and/or FACH resources, unless the UE is using dedicated resources (DCH, [TDD - USCH,] and/or DSCH) in the DRNS in which case the DRNC shall release only the C-RNTI and all its related RACH, [FDD - CPCH,] and/or FACH resources allocated for the UE.

8.4.2.3 Abnormal Conditions

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8.5 Global Procedures

8.5.1 Error Indication

8.5.1.1 General

The Error Indication procedure is initiated by a node to report detected errors in a received message, provided they cannot be reported by an appropriate response message.

This procedure shall use the signalling bearer mode specified below.

8.5.1.2 Successful Operation

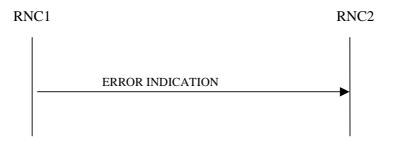


Figure 30: Error Indication procedure, Successful Operation

When the conditions defined in clause 10 are fulfilled, the Error Indication procedure is initiated by an ERROR INDICATION message sent from the receiving node. This message shall use the same mode of the signalling bearer and the same signalling bearer connection (if connection oriented) as the message that triggers the procedure.

When the ERROR INDICATION message is sent from a DRNC to an SRNC using connectionless mode of the signalling bearer, the *S-RNTI* IE shall be included in the message if available. When the ERROR INDICATION message is sent from an SRNC to a DRNC using connectionless mode of the signalling bearer, the *D-RNTI* IE shall be included in the message if available.

When a message using connectionless mode of the signalling bearer is received for a specified UE Context in a DRNC with an invalid *D-RNTI* IE, the DRNC shall include the D-RNTI from the received message in the *D-RNTI* IE in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

When a message using connectionless mode of the signalling bearer is received for a specified UE in an SRNC with an invalid *S-RNTI* IE, the SRNC shall include the S-RNTI from the received message in the *S-RNTI* IE in the ERROR INDICATION message, unless another handling is specified in the procedure text for the affected procedure.

The ERROR INDICATION message shall include either the *Cause* IE, or the *Criticality Diagnostics* IE, or both the *Cause* IE and the *Criticality Diagnostics* IE.

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

8.5.1.3 Abnormal Conditions

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8.5.2 Common Measurement Initiation

8.5.2.1 General

This procedure is used by an RNC to request the initiation of measurements of common resources to another RNC. The requesting RNC is referred to as RNC₁ and the RNC to which the request is sent is referred to as RNC₂.

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

8.5.2.2 Successful Operation

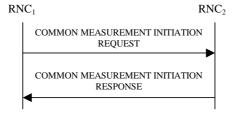


Figure 30A: Common Measurement Initiation procedure, Successful Operation

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the RNC₁ to the RNC₂.

Upon reception, the RNC₂ shall initiate the requested measurement according to the parameters given in the request.

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

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

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

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

Common measurement type

If the *Common Measurement Type* IE is set to 'SFN-SFN Observed Time Difference', then the RNC₂ shall initiate the SFN-SFN Observed Time Difference measurements between the reference cell identified by *C-ID* IE and the neighbouring cells identified by the *UTRAN Cell Identifier* IE (*UC-Id*).

If the *Common Measurement Type* IE is set to 'load', the RNC2 shall initiate measurements of uplink and downlink load on the measured object. If either uplink or downlink load satisfies the requested report characteristics, the RNC2 shall report the result of both uplink and downlink measurements.

If the Common Measurement Type IE is set to "RT load", the RNC $_2$ shall initiate measurements of uplink and downlink estimated share of RT (Real Time) traffic of the load of the measured object. If either uplink or downlink RT load satisfies the requested report characteristics, the RNC $_2$ shall report the result of both uplink and downlink measurements.

If the *Common Measurement Type* IE is set to "NRT load Information", the RNC₂ shall initiate measurements of uplink and downlink NRT (Non Real Time) load situation on the measured object. If either uplink or downlink NRT load satisfies the requested report characteristics, the RNC₂ shall report the result of both uplink and downlink measurements.

Report characteristics

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

If the *Report Characteristics* IE is set to 'On-Demand', the RNC₂ shall report the result of the requested measurement immediately.

If the Report Characteristics IE is set to 'Periodic', the RNC₂ shall periodically initiate a Measurement Reporting procedure for this measurement, with the requested report frequency. Furthermore, if the Common Measurement Type IE is set to 'SFN-SFN Observed Time Difference', then all the available measurements shall be reported in the Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information IE and the neighbouring cells with no measurement result available shall be reported in the Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information IE.

If the *Report Characteristics* IE is set to 'Event A', the RNC₂ 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 RNC₂ shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event B', the RNC₂ 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 RNC₂ shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event C', the RNC₂ shall initiate a Measurement Reporting procedure when the measured entity rises more than the requested threshold within the requested time. After having reported this type of event, the next C event reporting for the same measurement cannot be initiated before the rising/falling time has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to 'Event D', the RNC₂ shall initiate a Measurement Reporting procedure when the measured entity falls more than the requested threshold within the requested time. After having reported this type of event, the next D event reporting for the same measurement cannot be initiated before the rising/falling time has elapsed since the previous event reporting.

If the *Report Characteristics* IE is set to 'Event E', the RNC₂ shall initiate the Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided, the RNC₂ shall initiate the Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the RNC₂ shall initiate the Common Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If 'Measurement Threshold 2' is not present, the RNC₂ shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the RNC₂ 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 RNC₂ shall initiate the Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the RNC₂ shall also initiate the Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the RNC₂ shall initiate the Common Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If 'Measurement Threshold 2' is not present, the RNC₂ shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the RNC₂ shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to 'On Modification', the RNC₂ shall report the result of the requested measurement immediately. Then the RNC₂ shall initiate the Common Measurement Reporting procedure in accordance to the following conditions:

- 1. If the Common Measurement Type IE is set to 'UTRAN GPS Timing of Cell Frame for LCS':
 - If the $T_{UTRAN-GPS}$ Change Limit IE is included in the $T_{UTRAN-GPS}$ Measurement Threshold Information IE, the RNC₂ shall each time a new measurement result is received after point C in the measurement model [25], calculate the change of $T_{UTRAN-GPS}$ value (F_n). The RNC₂ shall initiate the Common Measurement Reporting procedure and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the $T_{UTRAN-GPS}$ Change Limit IE. The change of $T_{UTRAN-GPS}$ value (F_n) is calculated according to the following:

$$F_n=0$$
 for $n=0$

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

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

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_{n-1} is the previous measurement result received after point C in the measurement model [25], measured at SFN_{n-1}.

 M_1 is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

 M_0 is equal to the value reported in the first Common Measurement Reporting at initiation or in the Common Measurement Reporting when the event was triggered.

- If the *Predicted T_{UTRAN-GPS} Deviation Limit* IE is included in the *T_{UTRAN-GPS} Measurement Threshold Information* IE, the RNC₂ shall, each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n. The RNC₂ shall initiate the Common Measurement Reporting procedure and set n equal to zero when F_n rises above the threshold indicated by the *Predicted T_{UTRAN-GPS} Deviation Limit* IE. The P_n and F_n are calculated according to the following:

```
P_n=b for n=0
```

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

```
F_n = min((M_n - P_n) \mod 37158912000000, (P_n - M_n) \mod 37158912000000) for n > 0
```

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

a is the last reported T_{UTRAN-GPS} Drift Rate value.

b is the last reported $T_{UTRAN-GPS}$ value.

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

 M_n is the latest measurement result received after point C in the measurement model [25, measured at SFN_n.

 M_1 is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

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

- 2. If the Common Measurement Type IE is set to 'SFN-SFN Observed Time Difference':
 - If the *SFN-SFN Change Limit* IE is included in the *SFN-SFN Measurement Threshold Information* IE, the RNC₂ shall each time a new measurement result is received after point C in the measurement model [25], calculate the change of SFN-SFN value (F_n). The RNC₂ shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when the absolute value of F_n rises above the threshold indicated by the *SFN-SFN Change Limit* IE. The change of the SFN-SFN value is calculated according to the following:

$$F_n = 0$$
 for $n = 0$
[FDD - $F_n = (M_n - a) \mod 614400$ for $n > 0$]
[TDD - $F_n = (M_n - a) \mod 40960$ for $n > 0$]

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

a is the last reported SFN-SFN.

 M_n is the latest measurement result received after point C in the measurement model [25], measured at SFN_n.

 M_1 is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

- If the Predicted SFN-SFN Deviation Limit IE is included in the SFN-SFN Measurement Threshold Information IE, the RNC₂ shall each time a new measurement result is received after point C in the measurement model [25], update the P_n and F_n. The RNC₂ shall initiate the Common Measurement Reporting procedure in order to report the particular SFN-SFN measurement which has triggered the event and set n equal to zero when F_n rises above the threshold indicated by the Predicted SFN-SFN Deviation Limit IE. The P_n and F_n are calculated according to the following:

```
\begin{split} P_n = b & \ for \ n = 0 \\ [\text{FDD -} P_n = ((a/16) * ((SFN_n - SFN_{n-1}) \ mod \ 4096)/100 + P_{n-1}) \ mod \ 614400 \quad for \quad n > 0 \\ F_n = & \ min((M_n - P_n) \ mod \ 614400, \ (P_n - M_n) \ mod \ 614400) \quad for \ n > 0 ] \\ [\text{TDD-} P_n = & \ ((a/16) * (15*(SFN_n - SFN_{n-1}) mod \ 4096 + (TS_n - TS_{n-1}))/1500 + P_{n-1}) \ mod \ 40960 \ for \quad n > 0 \\ F_n = & \ min((M_n - P_n) \ mod \ 40960, \ (P_n - M_n) \ mod \ 40960) \quad for \ n > 0 ] \end{split}
```

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

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

b is the last reported SFN-SFN value.

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

 M_n is the latest measurement result received after point C in the measurement model [25], measured at the [TDD - Time Slot TS_n] of the Frame SFN_n.

 M_1 is the first measurement result received after point C in the measurement model [25], after first Common Measurement Reporting at initiation or after the last event was triggered.

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

If the *Report Characteristics* IE is not set to 'On-Demand', the RNC₂ is required to perform reporting for a common measurement object, in accordance with the conditions provided in the COMMON MEASUREMENT INITIATION REQUEST message, as long as the object exists. If no common measurement object(s) for which a measurement is defined exists any more the RNC₂ shall terminate the measurement locally without reporting this to RNC₁.

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 RNC₂ shall initiate a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

Common measurement accuracy

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

- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates 'Class A', then the concerned RNC₂ shall perform the measurement with the highest supported accuracy according to any of the accuracy classes A, B or C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates the 'Class B', then the concerned RNC₂ shall perform the measurements with the highest supported accuracy according to class B or C.
- If the *UTRAN GPS Timing Measurement Minimum Accuracy Class* IE indicates 'Class C', then the concerned RNC₂ shall perform the measurements with the highest supported accuracy according to class C only.
- If the *Common Measurement Type* IE is set to 'SFN-SFN Observed Time Difference', then the concerned RNC₂ shall initiate the SFN-SFN observed Time Difference measurements between the reference cell identified by *UC-ID* IE and the neighbouring cells identified by their UC-ID. The *Report Characteristics* IE applies to each of these measurements.

Higher layer filtering

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows

 F_n is the updated filtered measurement result

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

 M_n is the latest received measurement result from physical layer measurements, the unit used for M_n is the same unit as the reported unit in the COMMON MEASUREMENT INITIATION RESPONSE, COMMON MEASUREMENT REPORT messages or the unit used in the event evaluation (i.e. same unit as for Fn).

 $a = 1/2^{(k/2)}$ -, 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 RNC₂ was able to initiate the measurement requested by RNC₁ it shall respond with the COMMON MEASUREMENT INITIATION RESPONSE message sent. The message shall include the same Measurement ID that was used in the measurement request. Only in the case when the *Report Characteristics* IE is set to "On-Demand" or "On Modification", the COMMON MEASUREMENT INITIATION RESPONSE message shall contain the measurement result. It shall also the *Common Measurement Achieved Accuracy* IE in the *Common Measurement Value* IE if the *Common Measurement Type* IE is set to 'UTRAN GPS Timing of Cell Frame for LCS'.

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

8.5.2.3 Unsuccessful Operation

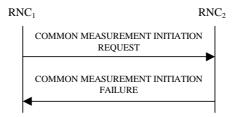


Figure 30B: Common Measurement Initiation procedure, Unsuccessful Operation

If the requested measurement cannot be initiated, the RNC₂ shall send a COMMON MEASUREMENT INITIATION FAILURE message. 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 Temporarily not Available

8.5.2.4 Abnormal Conditions

If the COMMON MEASUREMENT INITIATION REQUEST message contains the *SFN-SFN Measurement Threshold Information* IE (in the *Measurement Threshold* IE contained in the *Report Characteristics* IE) and it does not contain at least one IE, the RNC₂ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the COMMON MEASUREMENT INITIATION REQUEST message contains the $T_{UTRAN-GPS}$ Measurement Threshold Information IE (in the Measurement Threshold IE contained in the Report Characteristics IE) and it does not contain at least one IE, the RNC₂ shall reject the procedure using the COMMON MEASUREMENT INITIATION FAILURE message.

If the Common Measurement Type IE is set to 'UTRAN GPS Timing of Cell Frame for LCS', but the $T_{UTRAN-GPS}$ Measurement Minimum Accuracy Class IE in the Common Measurement Accuracy IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC₂ shall regard the Common Measurement Initiation procedure as failed.

If the Common Measurement Type received in the *Common Measurement Type* IE is not "load", "RT load" or "NRT load Information", and if the Common Measurement Type received in the *Common Measurement Type* IE is not defined in ref. [11] or [15] to be measured on the Common Measurement Object Type received in the *Common Measurement*

Object Type IE in the COMMON MEASUREMENT INITIATION REQUEST message the RNC₂ shall regard the Common Measurement Initiation procedure as failed.

If the *Common Measurement Type* IE is set to 'SFN-SFN Observed Time Difference', but the *Neighbouring Cell Measurement Information* IE is not received in the COMMON MEASUREMENT INITIATION REQUEST message, the RNC₂ shall regard the Common Measurement Initiation procedure as failed.

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

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

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

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

8.5.3 Common Measurement Reporting

8.5.3.1 General

This procedure is used by an RNC to report the result of measurements requested by another RNC using the Common Measurement Initiation.

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

8.5.3.2 Successful Operation



Figure 30C: Common Measurement Reporting procedure, Successful Operation

If the requested measurement reporting criteria are met, the RNC₂ shall initiate a Measurement Reporting procedure. 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 RNC₁ 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.

The RNC₂ shall include the *Common Measurement Achieved Accuracy* IE in the *Common Measurement Value* IE if the measurement was initiated for the 'UTRAN GPS Timing of Cell Frame for LCS' measurement type by the Common Measurement Initiation procedure.

8.5.3.3 Abnormal Conditions

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8.5.4 Common Measurement Termination

8.5.4.1 General

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

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

8.5.4.2 Successful Operation



Figure 30D: Common Measurement Termination procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT TERMINATION REQUEST message.

Upon reception, RNC₂ shall terminate reporting of measurements corresponding to the Common Measurement ID.

8.5.4.3 Abnormal Conditions

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8.5.5 Common Measurement Failure

8.5.5.1 General

This procedure is used by an RNC to notify another RNC that a measurement previously requested by the Common Measurement Initiation procedure can no longer be reported.

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

8.5.5.2 Successful Operation



Figure 30E: Common Measurement Failure procedure, Successful Operation

This procedure is initiated with a COMMON MEASUREMENT FAILURE INDICATION message, sent from RNC₂ to RNC₁ to inform the RNC₁ that a previously requested measurement can no longer be reported. RNC₂ has locally terminated the indicated measurement.

8.5.5.3 Abnormal Conditions

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8.5.6 Information Exchange Initiation

8.5.6.1 General

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

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

8.5.6.2 Successful Operation

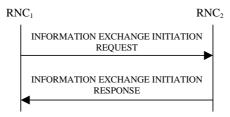


Figure 30F: Information Exchange Initiation procedure, Successful Operation

The procedure is initiated with an INFORMATION EXCHANGE INITIATION REQUEST message sent from RNC₁ to RNC₂.

Upon reception, the RNC₂ shall provide the requested information according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

Information Report Characteristics:

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

If the *Information Report Characteristics* IE is set to 'On-Demand', the RNC₂ shall report the requested information immediately.

If the Information Report Characteristics IE is set to 'Periodic', the RNC₂ shall periodically initiate the Information Reporting procedure for all the requested information, with the requested report frequency.

If the *Information Report Characteristics* IE is set to 'On-Modification', the RNC₂ shall report the requested information immediately and then shall initiate the Information Reporting procedure in accordance to the following conditions:

- If the *Information Type Item* IE is set to 'IPDL Parameters', the RNC₂ shall initiate the Information Reporting procedure when any change in the parameters occurs.

- If the *Information Type Item* IE is set to 'DGPS Corrections', the RNC₂ shall initiate the Information Reporting procedure for this specific Information Type when either the PRC has drifted from the previously reported value more than the threshold indicated in the *PRC Deviation* IE or a change has occurred in the IODE.
- If the *Information Type Item* IE is set to 'GPS Information' and the *GPS Information Item* IE includes 'GPS Navigation Model & Recovery Assistance', the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Type when a change has occurred regarding either the IODC or the list of visible satellites, identified by the *SatID* IEs.
- If the *Information Type Item* IE is set to 'GPS Information' and the *GPS Information Item* IE includes 'GPS Ionospheric Model', the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Type when any change has occurred.
- If the *Information Type Item* IE is set to 'GPS Information' and the *GPS Information Item* IE includes 'GPS UTC Model', the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Type when a change has occurred in the t_ot parameter.
- If the *Information Type Item* IE is set to 'GPS Information' and the *GPS Information Item* IE includes 'GPS Almanac', the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Type when any change has occurred.
- If the *Information Type Item* IE is set to 'GPS Information' and the *GPS Information Item* IE includes 'GPS Real-Time Integrity', the RNC₂ shall initiate the Information Reporting procedure for this specific GPS Information Type when any change has occurred.
- If the *Information Type* IE is set to "Cell Capacity Class", the RNC₂ shall initiate the Information Reporting procedure for uplink and downlink cell capacity class. If either uplink or downlink cell capacity class satisfies the requested report characteristics, the RNC₂ shall report the result of both uplink and downlink cell capacity information.

Response message:

If the RNC₂ was able to determine the information requested by the RNC₁, it shall respond with the INFORMATION EXCHANGE INITIATION RESPONSE message. The message shall include the same Information Exchange ID that was included in the INFORMATION EXCHANGE REQUEST message. When the *Report Characteristics* IE is set to "On-Demand" or "On Modification" or "Periodic", the INFORMATION EXCHANGE INITIATION RESPONSE message shall contain the requested data.

8.5.6.3 Unsuccessful Operation

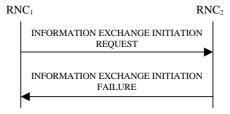


Figure 30G: Information Exchange Initiation procedure, Unsuccessful Operation

If the requested Information Type received in the *Information Type* IE indicates a type of information that RNC₂ cannot provide, the RNC₂ shall regard the Information Exchange Initiation procedure as failed.

If the requested information provision cannot be carried out, the RNC₂ shall send the INFORMATION EXCHANGE INITIATION FAILURE message. The message shall include the same Information Exchange ID that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

Information temporarily not available.

Information Provision not supported for the object.

8.5.6.4 Abnormal Conditions

If the *Information Report Characteristics* IE is set to 'On Modification', and the *Information Type Item* IE is set to 'DGPS Corrections', but the *Information Threshold* IE is not received in the INFORMATION EXCHANGE INITIATION REQUEST message, the RNC₂ shall regard the Information Exchange Initiation procedure as failed.

8.5.7 Information Reporting

8.5.7.1 General

This procedure is used by a RNC to report the result of information requested by another RNC using the Information Exchange Initiation.

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

8.5.7.2 Successful Operation



Figure 30H: Information Reporting procedure, Successful Operation

If the requested information reporting criteria are met, the RNC₂ shall initiate an Information Reporting procedure. Unless specified below, the meaning of the parameters are given in other specifications.

The *Information Exchange ID* IE shall be set to the Information Exchange ID provided by the RNC₁ when initiating the information exchange with the Information Exchange Initiation procedure.

The Requested Data Value IE shall include at least one IE containing the data to be reported.

8.5.7.3 Abnormal Conditions

_

8.5.8 Information Exchange Termination

8.5.8.1 General

This procedure is used by a RNC to terminate the information exchange requested using the Information Exchange Initiation.

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

8.5.8.2 Successful Operation



Figure 30I: Information Exchange Termination procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE TERMINATION REQUEST message.

Upon reception, the RNC₂ shall terminate the information exchange corresponding to the Information Exchange ID.

8.5.8.3 Abnormal Conditions

-

8.5.9 Information Exchange Failure

8.5.9.1 General

This procedure is used by a RNC to notify another that the information exchange it previously requested using the Information Exchange Initiation can no longer be reported.

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

8.5.9.2 Successful Operation



Figure 30J: Information Exchange Failure procedure, Successful Operation

This procedure is initiated with a INFORMATION EXCHANGE FAILURE INDICATION message, sent from the RNC₂ to the RNC₁, to inform the RNC₁ that information previously requested by the Information Exchange Initiation procedure can no longer be reported. The message shall include the same Information Exchange ID that was used in the INFORMATION EXCHANGE INITIATION REQUEST message and the *Cause* IE set to an appropriate value.

Typical cause values are as follows:

Radio Network Layer Cause:

Information temporarily not available.

8.5.10 Reset

8.5.10.1 General

The purpose of the reset procedure is to align the resources in RNC₁ and RNC₂ in the event of an abnormal failure.

The procedure uses connectionless signalling.

8.5.10.2 Successful Operation

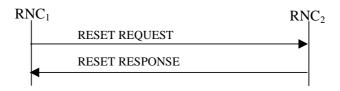


Figure 30K: Reset procedure, Successful Operation

The procedure is initiated with a RESET REQUEST message sent from the RNC₁ to the RNC₂.

If the *Reset Indicator* IE is set to 'Context', then:

- For all indicated UE contexts identified by the *S-RNTI* IE, the RNC₂ in the role of DRNC, shall remove all the indicated UE Contexts and all the radio resources allocated for these UE Contexts. In addition, the RNC₂ shall take actions according to Annex D.2.
- For all indicated UE contexts identified by the *D-RNTI* IE, the RNC₂ in the role of SRNC, shall remove the information related to the RNC₁ for all indicated UE Contexts and the radio resources allocated for these UE Contexts.

The RNC₂ shall also initiate release of the dedicated or common user plane resources that were involved in these UE Contexts. After clearing all related resources, the RNC₂ shall return the RESET RESPONSE message to the RNC₁.

If the Reset Indicator IE is set to 'All Contexts', then the RNC₂ shall:

- In the role of DRNC, remove all the UE Contexts for which the RNC₁ is the SRNC and all the radio resources allocated for these UE Contexts. In addition, the RNC₂ shall take actions according to Annex D.2.
- In the role of SRNC, remove the information related to the RNC₁ for all the UE Contexts and all the radio resources allocated for these UE Contexts.

The RNC₂ shall also initiate release of the dedicated or common user plane resources that were involved in these UE Contexts. After clearing all related resources, the RNC₂ shall return the RESET RESPONSE message to the RNC₁.

8.5.10.3 Abnormal Conditions

If the RESET message is received, any other ongoing procedure (except another Reset procedure) on same Iur interface related to a context indicated explicitly or implicitly in the message shall be aborted.

9 Elements for RNSAP Communication

9.1 Message Functional Definition and Content

9.1.1 General

This subclause defines the structure of the messages required for the RNSAP protocol in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 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.

NOTE: The messages have been defined in accordance to the guidelines specified in [28].

9.1.2 Message Contents

9.1.2.1 Presence

An information element can be of the following types:

M	IEs marked as Mandatory (M) shall always be included in the message.
0	IEs marked as Optional (O) may or may not be included in the message.
С	IEs marked as Conditional (C) shall be included in a message only if the condition is satisfied. Otherwise the IE
	shall not be included.

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. Each group may be also repeated within one message. 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 criticality information applied to it. Following cases are possible:

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

9.1.2.3 Range

The Range column indicates the allowed number of copies of repetitive IEs/IE groups.

9.1.2.4 Assigned Criticality

This column provides the actual criticality information as defined in subclause 10.3.2, if applicable.

9.1.3 RADIO LINK SETUP REQUEST

9.1.3.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	,
SRNC-Id	М		RNC-Id		YES	reject
			9.2.1.50			
S-RNTI	M		9.2.1.53		YES	reject
D-RNTI	0		9.2.1.24		YES	reject
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL DPCH Information		1			YES	reject
>UL Scrambling Code	M		9.2.2.53		_	
>Min UL Channelisation Code Length	М		9.2.2.25		_	
>Max Number of UL DPDCHs	C – CodeLen		9.2.2.24		_	
>Puncture Limit	М		9.2.1.46	For the UL.	_	
>TFCS	М		TFCS for		_	
			the UL			
			9.2.1.63			
>UL DPCCH Slot Format	М		9.2.2.52		_	
>Uplink SIR Target	0		Uplink SIR		_	
- F	-		9.2.1.69			
>Diversity mode	М		9.2.2.8		_	
>SSDT Cell Identity Length	0		9.2.2.41		_	
>S Field Length	0		9.2.2.36		_	
>DPC Mode	0		9.2.2.12A		YES	reject
DL DPCH Information		1	J.Z.Z.12/\		YES	reject
>TFCS	М	1	TFCS for		120	reject
211 00	IVI		the DL. 9.2.1.63		_	
>DL DPCH Slot Format	М		9.2.2.9		_	
>Number of DL	M		9.2.2.26A		_	
Channelisation Codes	N 4		0.0.0.40			
>TFCI Signalling Mode >TFCI Presence	M C-		9.2.2.46		_	
	SlotFormat		9.2.1.55		_	
>Multiplexing Position	М		9.2.2.26		_	
>Power Offset Information		1		- "	_	
>>PO1	M		Power Offset 9.2.2.30	Power offset for the TFCI bits.	_	
>>P02	М		Power Offset	Power offset for the TPC	-	
D00	1.4		9.2.2.30	bits.		
>>PO3	M		Power Offset	Power offset for the pilot	_	
>FDD TPC Downlink Step Size	M		9.2.2.30 9.2.2.16	bits.	_	
>Limited Power Increase	M		9.2.2.21A		_	
>Inner Loop DL PC Status	M		9.2.2.21A 9.2.2.21a			
	O		9.2.2.21a 9.2.2.39a		YES	reject
>Split Type >Length of TFCI2	0		9.2.2.39a 9.2.2.21C		YES	reject
DCH Information	M		DCH FDD Information 9.2.2.4A		YES	reject reject
DSCH Information	0		DSCH FDD Information 9.2.2.13A		YES	reject

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
RL Information		1 <maxn< td=""><td></td><td></td><td>EACH</td><td>notify</td></maxn<>			EACH	notify
. DL ID	M	oofRLs>	0.04.40			
>RL ID >C-Id	M		9.2.1.49 9.2.1.6		_	
					_	
>First RLS Indicator	M		9.2.2.16A			
>Frame Offset	M		9.2.1.30		_	
>Chip Offset	M		9.2.2.1		_	
>Propagation Delay	0		9.2.2.33		_	
>Diversity Control Field	C – NotFirstRL		9.2.1.20		_	
>Initial DL TX Power	0		DL Power 9.2.1.21A		_	
>Primary CPICH Ec/No	0		9.2.2.32		_	
>SSDT Cell Identity	0		9.2.2.40		_	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.48		_	
>SSDT Cell Identity for EDSCHPC	C- EDSCHPC		9.2.2.40A		YES	ignore
>Enhanced Primary CPICH Ec/No	0		9.2.2.131		YES	ignore
>RL Specific DCH Information	0		9.2.1.49A		YES	ignore
>Delayed Activation	0		9.2.1.19Aa		YES	reject
Transmission Gap Pattern Sequence Information	0		9.2.2.47A		YES	reject
Active Pattern Sequence Information	0		9.2.2.A		YES	reject
Permanent NAS UE Identity	0		9.2.1.73		YES	ignore
DL Power Balancing Information	0		9.2.2.10A		YES	ignore
HS-DSCH Information	0		HS-DSCH FDD Information 9.2.2.19a		YES	reject
HS-PDSCH RL ID	C – InfoHSDS CH		RL ID 9.2.1.53		YES	reject

Condition	Explanation
CodeLen	The IE shall be present if Min UL Channelisation Code length IE equals to 4
SlotFormat	The IE shall be present if the <i>DL DPCH Slot Format</i> IE is equal to any of the values from 12 to 16.
NotFirstRL	The IE shall be present if the RL is not the first one in the RL Information IE.
Diversity mode	The IE shall be present if <i>Diversity Mode</i> IE in <i>UL DPCH Information</i> IE and is not equal to "none".
EDSCHPC	This IE shall be present if <i>Enhanced DSCH PC</i> IE is present in the <i>DSCH Information</i> IE.
InfoHSDSCH	This IE shall be present if HS-DSCH Information IE is present.

Range bound	Explanation				
MaxnoofRLs	Maximum number of RLs for one UE.				

9.1.3.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
SRNC-Id	М		RNC-ld 9.2.1.50		YES	reject
S-RNTI	М		9.2.1.53		YES	reject
D-RNTI	0		9.2.1.24		YES	reject
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL Physical Channel Information		1			YES	reject
>Maximum Number of Timeslots per Frame	М		9.2.3.3A	For the UL	_	
>Minimum Spreading Factor	М		9.2.3.4A	For the UL	_	
>Maximum Number of UL Physical Channels per Timeslot	M		9.2.3.3B		_	
DL Physical Channel Information		1			YES	reject
>Maximum Number of Timeslots per Frame	М		9.2.3.3A	For the DL	_	
>Minimum Spreading Factor	М		9.2.3.4A	For the DL	_	
>Maximum Number of DL Physical Channels per Frame	M		9.2.3.3C		_	
UL CCTrCH Information		0 <maxno ofCCTrCH s></maxno 		For DCH and USCH	EACH	notify
>CCTrCH ID	М	0,	9.2.3.2		_	
>TFCS	M		9.2.1.63	For the UL.	_	
>TFCI Coding	M		9.2.3.11		_	
>Puncture Limit	М		9.2.1.46		_	
DL CCTrCH Information		0 <maxno ofCCTrCH s></maxno 		For DCH and DSCH	EACH	notify
>CCTrCH ID	М	0,	9.2.3.2		_	
>TFCS	M		9.2.1.63	For the DL.	_	
>TFCI Coding	M		9.2.3.11	TOT THE DE.	_	
>Puncture Limit	M		9.2.1.46		_	
>TDD TPC Downlink Step Size	M		9.2.3.10		_	
>TPC CCTrCH List		0 to <maxnoc CTrCH></maxnoc 		List of uplink CCTrCH which provide TPC	_	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.2		_	
DCH Information	0		DCH TDD Information 9.2.3.2A		YES	reject
DSCH Information	0		DSCH TDD Information 9.2.3.3a		YES	reject
USCH Information	0		9.2.3.15		YES	reject
RL Information		1			YES	reject
>RL ID	М		9.2.1.49		-	-1
>C-Id	M		9.2.1.6		_	
>Frame Offset	M		9.2.1.30		_	
>Special Burst Scheduling	M	1	9.2.3.7D		_	

>Primary CCPCH RSCP	0	9.2.3.5		_	
>DL Time Slot ISCP Info	0	9.2.3.2D	For 3.84Mcps TDD only	-	
>DL Time Slot ISCP Info LCR	0	9.2.3.2F	For 1.28Mcps TDD only	YES	reject
>TSTD Support Indicator	0	9.2.3.13F	For 1.28Mcps TDD only	YES	ignore
>RL Specific DCH Information	0	9.2.1.49A		YES	ignore
>Delayed Activation	0	9.2.1.19Aa		YES	reject
Permanent NAS UE Identity	0	9.2.1.73		YES	ignore
HS-DSCH Information	0	 HS-DSCH TDD Information 9.2.3.3aa		YES	reject
HS-PDSCH RL ID	C - InfoHSDS CH	RL ID 9.2.1.53		YES	reject

Range bound	Explanation					
MaxnoofCCTrCHs	Maximum number of CCTrCH for one UE.					
InfoHSDSCH	This IE shall be present if HS-DSCH Information IE is present.					

9.1.4 RADIO LINK SETUP RESPONSE

9.1.4.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	•
D-RNTI	0		9.2.1.24		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
RL Information Response		1 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	М		9.2.1.49		_	
>RL Set ID	M		9.2.2.35		_	
>URA Information	0		9.2.1.70B		_	
>SAI	M		9.2.1.52		_	
>Cell GAI	O		9.2.1.5A		_	
>UTRAN Access Point Position	0		9.2.1.70A		_	
>Received Total Wide Band Power	М		9.2.2.35A		_	
>Secondary CCPCH Info	0		9.2.2.37B		_	
>DL Code Information	М		FDD DL Code Information 9.2.2.14A		_	
>Diversity Indication	C- NotFirstRL		9.2.1.21		ı	
>CHOICE Diversity Indication	М				_	
>>Combining					_	
>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	_	
>>>DCH Information Response	0		9.2.1.16A		YES	ignore
>>Non Combining or First RL					_	
>>>DCH Information Response	М		9.2.1.16A		_	
>SSDT Support Indicator	M		9.2.2.43		_	
>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Closed Loop Timing Adjustment Mode	0		9.2.2.3A		1	
>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	М		DL Power 9.2.1.21A		_	
>Primary Scrambling Code	0		9.2.1.45		_	
>UL UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nu in ref. [6]	-	
>DL UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nd in ref. [6]	-	
>Primary CPICH Power	М		9.2.1.44		_	
>DSCH Information Response	0		DSCH FDD Information		YES	ignore

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
			Response 9.2.2.13B			
>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>Neighbouring GSM Cell Information	0		9.2.1.41C		_	
>PC Preamble	M		9.2.2.27a		_	
>SRB Delay	M		9.2.2.39A		_	
>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>DL Power Balancing Activation Indicator	0		9.2.2.10B		YES	ignore
>HS-DSCH Information Response	0		HS-DSCH FDD Information Response 9.2.2.19b		YES	ignore
>TFCI PC Support Indicator	0		9.2.2.46A		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
Uplink SIR Target	0		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
DSCH-RNTI	0		9.2.2.13Bb		YES	ignore
HS-DSCH-RNTI	0		9.2.1.30P		YES	reject

Condition	Explanation
NotFirstRL	The IE shall be present if the RL is not the first RL in the RL
	Information Response IE.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.

9.1.4.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
D-RNTI	0		9.2.1.24		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
RL Information Response		01		Mandatory For 3.84Mcps TDD only	YES	ignore
>RL ID	M		9.2.1.49		_	
>URA Information	0		9.2.1.70B		_	
>SAI	M		9.2.1.52		_	
>Cell GAI	0		9.2.1.5A		_	
>UTRAN Access Point Position	0		9.2.1.70A		_	
>UL Time Slot ISCP Info	М		9.2.3.13D		_	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		_	
>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>Maximum DL TX Power	М		DL Power 9.2.1.21A		-	
>Minimum DL TX Power	М		DL Power 9.2.1.21A		_	
>UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nt in ref. [7]	-	
>Cell Parameter ID	0		9.2.1.8		_	
>Sync Case	0		9.2.1.54		_	
>SCH Time Slot	C-Case2		9.2.1.51		_	
>SCTD Indicator	0		9.2.1.78		_	
>PCCPCH Power	M		9.2.1.43		_	
>Timing Advance Applied	M		9.2.3.12A		_	
>Alpha Value	M		9.2.3.a		_	
>UL PhysCH SF Variation	M		9.2.3.13B			
>Synchronisation	M		9.2.3.13B 9.2.3.7E		_	
Configuration					_	
>Secondary CCPCH Info TDD	0		9.2.3.7B		_	
>UL CCTrCH Information		0 <maxno ofCCTrCH s></maxno 		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		_	
>>UL DPCH Information		01			YES	ignore
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	М		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	· · · · · ·
>>>UL Timeslot Information	М		9.2.3.13C		_	
>>Uplink SIR Target CCTrCH	0		Uplink SIR 9.2.1.69		YES	ignore
>DL CCTrCH Information		0 <maxno ofCCTrCH s></maxno 		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		_	
>>DL DPCH Information		01			YES	ignore
>>>Repetition Period	М		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M	1	9.2.3.8A		_	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>DL Timeslot Information	М		9.2.3.2C			
>DCH Information Response	0		9.2.1.16A		YES	ignore
>DSCH Information Response		0 <maxnoof DSCHs></maxnoof 			GLOBAL	ignore
>>DSCH ID	M		9.2.1.26A		_	
>>DSCH Flow Control Information	M		9.2.1.26B		1	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		_	
>>Transport Format Management	M		9.2.3.13		_	
>USCH Information Response		0 <maxnoof USCHs></maxnoof 			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		_	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		_	
>>Transport Format Management	М		9.2.3.13		_	
>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>Neighbouring GSM Cell Information	0		9.2.1.41C		-	
>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>HS-DSCH Information Response	0		HS-DSCH TDD Information Response 9.2.3.3ab		YES	ignore
RL Information Response LCR		01		Mandatory For 1.28Mcps	YES	ignore
51.15			0.0.4.40	TDD only		
>RL ID	M		9.2.1.49		_	
>URA Information	M		9.2.1.70B		_	
>SAI	M O		9.2.1.52 9.2.1.5A		_	
>Cell GAI >UTRAN Access Point Position	0		9.2.1.70A		_ _	
>UL Time Slot ISCP Info LCR	М		9.2.3.13H		_	
>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69			
>Maximum Allowed UL Tx Power	M		9.2.1.35		_	
>Maximum DL TX Power	M		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	M		DL Power 9.2.1.21A		_	
>UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nt in ref. [7]	_	
>Cell Parameter ID	0		9.2.1.8		_	
>SCTD Indicator	0		9.2.1.78		_	
>PCCPCH Power	M		9.2.1.43		_	
>Alpha Value >UL PhysCH SF Variation	M M		9.2.3.a 9.2.3.13B		_ _	
>Synchronisation Configuration	М		9.2.3.7E			

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>Secondary CCPCH Info TDD LCR	0		9.2.3.7F		_	
>UL CCTrCH Information LCR		0 <maxno ofCCTrCH sLCR></maxno 		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		-	
>>UL DPCH Information LCR		01			YES	ignore
>>>Repetition Period	М		9.2.3.7		_	
>>>Repetition Length	М		9.2.3.6		_	
>>>TDD DPCH Offset	М		9.2.3.8A		_	
>>>UL Timeslot Information LCR	М		9.2.3.13G		_	
>>Uplink SIR Target CCTrCH	0		Uplink SIR 9.2.1.69		YES	ignore
>DL CCTrCH Information LCR		0 <maxno ofCCTrCH sLCR></maxno 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М		9.2.3.2		_	
>>DL DPCH Information LCR		01			YES	ignore
>>>Repetition Period	М		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	М		9.2.3.8A		_	
>>>DL Timeslot Information LCR	М		9.2.3.2E			
>>>TSTD Indicator	М		9.2.3.13E		_	
>DCH Information Response	0		9.2.1.16A		YES	ignore
>DSCH Information Response LCR		0 <maxnoof DSCHsLC R></maxnoof 			GLOBAL	ignore
>>DSCH ID	M		9.2.1.26A		_	
>>DSCH Flow Control Information	М		9.2.1.26B		_	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		_	
>>Transport Format Management	М		9.2.3.13		_	
>USCH Information Response LCR		0 <maxnoof USCHsLC R></maxnoof 			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		_	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		_	
>>Transport Format Management	М		9.2.3.13		_	
>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>Neighbouring GSM Cell Information	0		9.2.1.41C		_	
>HS-DSCH Information Response LCR	0		HS-DSCH TDD Information Response 9.2.3.3ab		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
Uplink SIR Target	M		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
HS-DSCH-RNTI	0		9.2.1.30P		YES	reject

Condition	Explanation				
Case2	The IE shall be present if Sync Case IE is equal to "Case2".				

Range bound	Explanation
MaxnoofDSCHs	Maximum number of DSCHs for one UE for 3.84Mcps TDD.
MaxnoofUSCHs	Maximum number of USCHs for one UE for 3.84Mcps TDD.
MaxnoofCCTrCHs	Maximum number of CCTrCH for one UE for 3.84Mcps TDD.
MaxnoofDSCHsLCR	Maximum number of DSCHs for one UE for 1.28Mcps TDD.
MaxnoofUSCHsLCR	Maximum number of USCHs for one UE for 1.28Mcps TDD.
MaxnoofCCTrCHsLCR	Maximum number of CCTrCH for one UE for 1.28Mcps TDD.

9.1.5 RADIO LINK SETUP FAILURE

9.1.5.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	, , , , , , , , , , , , , , , , , , , ,
D-RNTI	0		9.2.1.24		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
CHOICE Cause Level	M		0.2		YES	ignore
>General	101				-	ignore
>>Cause	М		9.2.1.5		_	
>RL Specific	IVI		0.2.1.0		_	
>>Unsuccessful RL		1 <maxn< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxn<>			EACH	ignore
Information Response		oofRLs>			LAOIT	ignore
>>>RL ID	М	OOT (LG)	9.2.1.49			
>>>Cause	M		9.2.1.49		_	
>>Successful RL	IVI	0 <maxno< td=""><td>9.2.1.3</td><td></td><td>EACH</td><td>ianoro</td></maxno<>	9.2.1.3		EACH	ianoro
Information Response		ofRLs-1>			EACH	ignore
	N 4	UIRLS-1>	0.0.1.40			
>>>RL ID	M	 	9.2.1.49	-	_	
>>>RL Set ID	M	1	9.2.2.35		_	
>>>URA Information	0	-	9.2.1.70B	-	_	
>>>SAI	M		9.2.1.52		_	
>>>Cell GAI	0		9.2.1.5A		_	
>>>UTRAN Access Point Position	0		9.2.1.70A		_	
>>>Received Total Wide Band Power	М		9.2.2.35A		_	
>>>Secondary CCPCH Info	0		9.2.2.37B		_	
>>>DL Code Information	M		FDD DL Code Information		-	
			9.2.2.14A			
>>>Diversity Indication	M		9.2.1.21		_	
>>>CHOICE Diversity Indication	М				_	
>>>Combining					_	
>>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	_	
>>>>DCH	0		9.2.1.16A		YES	ignore
Information Response >>>Non Combining or					_	
First RL			1			
>>>>DCH Information Response	М		9.2.1.16A		_	
>>>SSDT Support Indicator	М		9.2.2.43		_	
>>>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>>>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>>>Closed Loop Timing Adjustment Mode	0		9.2.2.3A		_	
>>>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>>>Maximum DL TX Power	М		DL Power 9.2.1.21A		_	
>>>Minimum DL TX Power	М		DL Power 9.2.1.21A		_	
>>>Primary CPICH	М		9.2.1.44		_	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Power						
>>>Primary Scrambling Code	0		9.2.1.45		-	
>>>UL UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nu in ref. [6]	_	
>>>DL UARFCN	0		UARFCN 9.2.1.66	Corresponds to Nd in ref. [6]	_	
>>>DSCH Information Response	0		DSCH FDD Information Response 9.2.2.13B		YES	ignore
>>>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>>>Neighbouring GSM Cell Information	0		9.2.1.41C		-	
>>>PC Preamble	M		9.2.2.27a		-	
>>>SRB Delay	M		9.2.2.39A		-	
>>>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>>>DL Power Balancing Activation Indicator	0		9.2.2.10B		YES	ignore
>>>HS-DSCH Information Response	0		HS-DSCH FDD Information Response 9.2.2.19b		YES	ignore
>>>TFCI PC Support Indicator	0		9.2.2.46A		YES	ignore
>>>HCS Prio	0		9.2.1.30N		YES	ignore
>>HS-DSCH-RNTI	0		9.2.1.30P		YES	reject
Uplink SIR Target	0		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

Range bound	Explanation			
MaxnoofRLs	Maximum number of RLs for one UE.			

9.1.5.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	•
CHOICE Cause Level	М				YES	ignore
>General					_	
>>Cause	М		9.2.1.5		_	
>RL Specific					_	
>>Unsuccessful RL Information Response		1			YES	ignore
>>>RL ID	М		9.2.1.49		_	
>>>Cause	М		9.2.1.5		_	
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.6 RADIO LINK ADDITION REQUEST

9.1.6.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		1	
Uplink SIR Target	M		Uplink SIR 9.2.1.69		YES	reject
RL Information		1 <maxn oofRLs- 1></maxn 			EACH	notify
>RL ID	М		9.2.1.49		-	
>C-Id	М		9.2.1.6		_	
>Frame Offset	M		9.2.1.30		_	
>Chip Offset	M		9.2.2.1		_	
>Diversity Control Field	M		9.2.1.20		_	
>Primary CPICH Ec/No	0		9.2.2.32		_	
>SSDT Cell Identity	0		9.2.2.40			
>Transmit Diversity Indicator	0		9.2.2.48		_	
>DL Reference Power	0		DL Power 9.2.1.21A	Power on DPCH	YES	ignore
>Enhanced Primary CPICH Ec/No	0		9.2.2.131		YES	ignore
>RL Specific DCH Information	0		9.2.1.49A		YES	ignore
>Delayed Activation	0		9.2.1.19Aa		YES	reject
Active Pattern Sequence Information	0		9.2.2A	Either all the already active Transmissio n Gap Sequence(s) are addressed (Transmissio n Gap Pattern sequence shall overlap with the existing one) or none of the transmission gap sequences is activated.	YES	reject
DPC Mode	0		9.2.2.12A	30.174.04.	YES	reject
Permanent NAS UE Identity	0		9.2.1.73		YES	ignore

Range bound	Explanation		
MaxnoofRLs	Maximum number of radio links for one UE.		

9.1.6.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information		1			YES	reject
>RL ID	M		9.2.1.49		_	
>C-Id	M		9.2.1.6		_	
>Frame Offset	M		9.2.1.30		_	
>Diversity Control Field	M		9.2.1.20		_	
>Primary CCPCH RSCP	0		9.2.3.5		_	
>DL Time Slot ISCP Info	0		9.2.3.2D	For 3.84Mcps TDD only	_	
>DL Time Slot ISCP Info LCR	0		9.2.3.2F	For 1.28Mcps TDD only	YES	reject
>RL Specific DCH Information	0		9.2.1.49A		YES	ignore
>Delayed Activation	0		9.2.1.19Aa		YES	reject
Permanent NAS UE Identity	0		9.2.1.73		YES	ignore

9.1.7 RADIO LINK ADDITION RESPONSE

9.1.7.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
RL Information Response		1 <maxnoof RLs-1></maxnoof 			EACH	ignore
>RL ID	М		9.2.1.49		_	
>RL Set ID	M		9.2.2.35		_	
>URA Information	0		9.2.1.70B		_	
>SAI	M		9.2.1.52		_	
>Cell GAI	0		9.2.1.5A		_	
>UTRAN Access Point Position	0		9.2.1.70A		-	
>Received Total Wide Band Power	М		9.2.2.35A		_	
>Secondary CCPCH Info	0		9.2.2.37B		_	
>DL Code Information	М		FDD DL Code Information 9.2.2.14A		YES	ignore
>Diversity Indication	М		9.2.1.21		_	
>CHOICE Diversity Indication	M		0.2.1.21		-	
>>Combining	1		0.04.40	D (_	
>>>RL ID	М		9.2.1.49	Reference RL ID	_	
>>>DCH Information Response	0		9.2.1.16A		YES	ignore
>>Non Combining					_	
>>>DCH Information Response	М		9.2.1.16A		_	
>SSDT Support Indicator	M		9.2.2.43		_	
>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>Closed Loop Timing Adjustment Mode	0		9.2.2.3A		_	
>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>Maximum DL TX Power	М		DL Power 9.2.1.21A		-	
>Minimum DL TX Power	М		DL Power 9.2.1.21A		_	
>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>Neighbouring GSM Cell Information	0		9.2.1.41C		_	
>PC Preamble	М		9.2.2.27a		_	
>SRB Delay	М		9.2.2.39A		_	
>Primary CPICH Power	M		9.2.1.44		_	
>Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
>DL Power Balancing Activation Indicator	0		9.2.2.10B		YES	ignore
>TFCI PC Support Indicator	0		9.2.2.46A		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
Criticality Diagnostics	0		9.2.1.13	-	YES	ignore

Range bound	Explanation			
MaxnoofRLs	Maximum number of radio links for one UE.			

9.1.7.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	. 0,001
RL Information Response		01		Mandatory For 3.84Mcps TDD only	YES	ignore
>RL ID	M		9.2.1.49		_	
>URA Information	0		9.2.1.70B		_	
>SAI	M		9.2.1.52		_	
>Cell GAI	0		9.2.1.5A		_	
>UTRAN Access Point Position	0		9.2.1.70A		_	
>UL Time Slot ISCP Info	M		9.2.3.13D		_	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		_	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		_	
>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>Maximum DL TX Power	М		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	М		DL Power 9.2.1.21A		_	
>PCCPCH Power	М		9.2.1.43		_	
>Timing Advance Applied	M		9.2.3.12A		_	
>Alpha Value	М		9.2.3.a		_	
>UL PhysCH SF Variation	М		9.2.3.13B		_	
>Synchronisation Configuration	М		9.2.3.7E		_	
>Secondary CCPCH Info	0		9.2.3.7B		_	
>UL CCTrCH Information		0 <maxnoof CCTrCHs></maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М		9.2.3.2		_	
>>UL DPCH		01			YES	ignore
Information						
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>UL Timeslot	M		9.2.3.13C		_	
Information >DL CCTrCH Information		0 <maxnoof< td=""><td></td><td>For DCH</td><td>GLOBAL</td><td>ignore</td></maxnoof<>		For DCH	GLOBAL	ignore
		CCTrCHs>				
>>CCTrCH ID	M		9.2.3.2		_	
>>DL DPCH Information		01			YES	ignore
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>DL Timeslot Information	M		9.2.3.2C		_	
>DCH Information		01			_	
>>Diversity Indication	M		9.2.1.21		_	
>>CHOICE Diversity Indication	М				_	
>>>Combining					_	
>>>RL ID	М		9.2.1.49	Reference RL	_	
>>>DCH Information Response	0		9.2.1.16A		YES	ignore

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>Non Combining			1010101100		_	
>>>DCH	М		9.2.1.16A		_	
Information						
Response						
>DSCH Information		0			GLOBAL	ignore
Response		<maxnoof< td=""><td></td><td></td><td>OLODAL</td><td>ignore</td></maxnoof<>			OLODAL	ignore
Response		DSCHs>				
>>DSCH ID	М	D001132	9.2.1.26A			
>>Transport Format	M		9.2.3.13			
	IVI		9.2.3.13		_	
Management	+		0.0.4.000			
>>DSCH Flow Control	M		9.2.1.26B		_	
Information						
>>CHOICE Diversity	0				_	
Indication						
>>>Non Combining					_	
>>>Binding ID	0		9.2.1.3		_	
>>>Transport	0		9.2.1.62		_	
Layer Address			5.2.1.02			
>USCH Information		0			GLOBAL	ianoro
					GLUBAL	ignore
Response		<maxnoof< td=""><td></td><td></td><td></td><td></td></maxnoof<>				
	<u> </u>	USCHs>				
>>USCH ID	M		9.2.3.14		_	
>>Transport Format	M		9.2.3.13		_	
Management						
>>CHOICE Diversity	0				_	
Indication						
>>>Non Combining					_	
>>>Binding ID	0		9.2.1.3		_	
>>>>Transport	0		9.2.1.62		_	
	0		9.2.1.62		_	
Layer Address						
>Neighbouring UMTS Cell	0		9.2.1.41A		_	
Information						
>Neighbouring GSM Cell	0		9.2.1.41C		_	
Information						
>Cell GA Additional	0		9.2.1.5B		YES	ignore
Shapes						
RL Information Response		01		Mandatory	YES	ignore
LCR		0		For	1.20	ignore
				1.28Mcps		
				TDD only		
. DL ID	N 4		0.04.40	TDD OHly		
>RL ID	M		9.2.1.49		_	
>URA Information	М		9.2.1.70B		_	
>SAI	M		9.2.1.52		_	
>Cell GAI	0		9.2.1.5A			
>UTRAN Access Point	0		9.2.1.70A		_	
Position					1	
>UL Time Slot ISCP Info	М		9.2.3.13H		_	
LCR			0.2.0.1011		1	
>Minimum Uplink SIR	М	<u> </u>	Uplink SIR		_	
/wiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	IVI				_	
. Massing one Limits LOID	N4	-	9.2.1.69		1	
>Maximum Uplink SIR	М		Uplink SIR		_	
	1	1	9.2.1.69		ļ	
>PCCPCH Power	M		9.2.1.43		-	
>Maximum Allowed UL Tx	M		9.2.1.35			
Power						
>Maximum DL TX Power	М		DL Power		_	
			9.2.1.21A			
>Minimum DL TX Power	М		DL Power		_	
/wiii iii iii DE IA I OWGI	'*'		9.2.1.21A			
> Alpha Malua	M	1			1	
>Alpha Value		1	9.2.3.a		_	
>UL PhysCH SF Variation	M		9.2.3.13B		_	
>Synchronisation	M		9.2.3.7E		_	
Configuration						
>Secondary CCPCH Info	0		9.2.3.7F		_	
-						

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
TDD LCR						
>UL CCTrCH Information LCR		0 <maxnoof CCTrCHsLC R></maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М		9.2.3.2		_	
>>UL DPCH		01			YES	ignore
Information LCR						J
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>UL Timeslot	M		9.2.3.13G		_	
Information LCR						
>DL CCTrCH Information LCR		0 <maxnoof CCTrCHsLC R></maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	М	7.0	9.2.3.2		_	
>>DL DPCH		01			YES	ignore
Information LCR						3 -
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>DL Timeslot Information LCR	М		9.2.3.2E		-	
>>>TSTD Indicator	M	ļ <u></u>	9.2.3.13E		-	
>DCH Information		01			YES	ignore
>>Diversity Indication	M		9.2.2.7		_	
>>CHOICE Diversity Indication	М				_	
>>>Combining			0.0.4.40	5 /	_	
>>>>RL ID	М		9.2.1.49	Reference RL	_	
>>>Non Combining			0.04.404		_	
>>>>DCH Information Response	M		9.2.1.16A		_	
>DSCH Information Response LCR		0 <maxnoof DSCHsLCR ></maxnoof 			GLOBAL	ignore
>>DSCH ID	М		9.2.1.26A		_	
>>Transport Format Management	M		9.2.3.13		_	
>>DSCH Flow Control Information	М		9.2.1.26B		_	
>>CHOICE Diversity Indication	0				_	
>>>Non Combining					_	
>>>>Binding ID	0		9.2.1.3		_	
>>>>Transport Layer Address	0		9.2.1.62		_	
>USCH Information Response LCR		0 <maxnoof USCHsLCR ></maxnoof 			GLOBAL	ignore
>>USCH ID	М	†	9.2.3.14	+	_	
>>Transport Format Management	M		9.2.3.13		_	
>>CHOICE Diversity Indication	0				_	
>>>Non Combining					_	
>>>>BindingID	0		9.2.1.3		_	
>>>>Transport Layer Address	0		9.2.1.62		_	
>Neighbouring UMTS Cell	0		9.2.1.41A		_	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Information						
>Neighbouring GSM Cell Information	0		9.2.1.41C		_	
>HCS Prio	0		9.2.1.30N		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

Range Bound	Explanation
MaxnoofDSCHs	Maximum number of DSCHs for one UE for 3.84Mcps TDD.
MaxnoofUSCHs	Maximum number of USCHs for one UE for 3.84Mcps TDD.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for one UE for 3.84Mcps TDD.
MaxnoofDSCHsLCR	Maximum number of DSCHs for one UE for 1.28Mcps TDD.
MaxnoofUSCHsLCR	Maximum number of USCHs for one UE for 1.28Mcps TDD.
MaxnoofCCTrCHsLCR	Maximum number of CCTrCH for one UE for 1.28Mcps TDD.

9.1.8 RADIO LINK ADDITION FAILURE

9.1.8.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	•
CHOICE Cause Level	M				YES	ignore
>General					_	
>>Cause	M		9.2.1.5		_	
>RL Specific					_	
>>Unsuccessful RL Information Response		1 <maxnoof RLs-1></maxnoof 			EACH	ignore
>>>RL ID	M		9.2.1.49		_	
>>>Cause	M		9.2.1.5		_	
>>Successful RL		0 <maxnoof< td=""><td></td><td></td><td>EACH</td><td>ignore</td></maxnoof<>			EACH	ignore
Information Response		RLs-2>				
>>>RL ID	M		9.2.1.49		_	
>>>RL Set ID	M		9.2.2.35		_	
>>>URA Information	0		9.2.1.70B		_	
>>>SAI	М		9.2.1.52		_	
>>>Cell GAI	0		9.2.1.5A		_	
>>>UTRAN Access Point Position	0		9.2.1.70A		_	
>>>Received Total Wide Band Power	M		9.2.2.35A		_	
>>>Secondary CCPCH Info	0		9.2.2.37B		_	
>>>DL Code Information	M		FDD DL Code Information 9.2.2.14A		YES	ignore
>>>Diversity Indication	М		9.2.1.21		_	
>>>CHOICE Diversity Indication	M				_	
>>>Combining					_	
>>>>RL ID	М		9.2.1.49	Reference RL ID	-	
>>>>DCH Information Response	0		9.2.1.16A		YES	ignore
>>>Non Combining >>>>DCH Information Response	M		9.2.1.16A			
>>>SSDT Support Indicator	М		9.2.2.43		_	
>>>Minimum Uplink SIR	М		Uplink SIR 9.2.1.69		_	
>>>Maximum Uplink SIR	М		Uplink SIR 9.2.1.69		_	_
>>>Closed Loop Timing Adjustment Mode	0		9.2.2.3A		_	
>>>Maximum Allowed UL Tx Power	М		9.2.1.35		_	
>>>Maximum DL TX Power	M		DL Power 9.2.1.21A		_	
>>>Minimum DL TX Power	M		DL Power 9.2.1.21A		_	
>>>Neighbouring UMTS Cell Information	0		9.2.1.41A		_	
>>>Neighbouring GSM Cell Information	0		9.2.1.41C		_	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>Primary CPICH	M		9.2.1.44		_	
Power						
>>>PC Preamble	M		9.2.2.27a		-	
>>>SRB Delay	M		9.2.2.39A		-	
>>>Cell GA Additional	0		9.2.1.5B		YES	ignore
Shapes						
>>>DL Power	0		9.2.2.10B		YES	ignore
Balancing Activation						
Indicator						
>>>TFCI PC Support	0		9.2.2.46A		YES	ignore
Indicator						
>>>HCS Prio	0	•	9.2.1.30N		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

Range bound	Explanation			
MaxnoofRLs	Maximum number of radio links for one UE.			

9.1.8.2 TDD Message

IE/Group Name	Presence	Range	IE type and	Semantics description	Criticality	Assigned Criticality
			reference			
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
CHOICE Cause Level	M				YES	ignore
>General					_	
>>Cause	M		9.2.1.5		_	
>RL Specific					_	
>>Unsuccessful RL		1			YES	ignore
Information Response						
>>>RL ID	M		9.2.1.49		_	
>>>Cause	M		9.2.1.5		_	
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.9 RADIO LINK DELETION REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information		1 <maxno ofRLs></maxno 			EACH	notify
>RL ID	M		9.2.1.49		_	

Range bound	Explanation
MaxnoofRLs	Maximum number of radio links for one UE

9.1.10 RADIO LINK DELETION RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.11 RADIO LINK RECONFIGURATION PREPARE

FDD Message 9.1.11.1

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference			
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	•
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL DPCH Information		01			YES	reject
>UL Scrambling Code	0		9.2.2.53		_	_
>UL SIR Target	0		Uplink SIR		_	
· ·			9.2.1.69			
>Min UL Channelisation Code Length	0		9.2.2.25		_	
>Max Number of UL DPDCHs	C – CodeLen		9.2.2.24		_	
>Puncture Limit	0		9.2.1.46	For the UL.	_	
>TFCS	0		9.2.1.63	TFCS for the UL.	_	
>UL DPCCH Slot Format	0		9.2.2.52		_	
>Diversity Mode	0		9.2.2.8		_	
>SSDT Cell Identity	0		9.2.2.41		_	
Length						
>S-Field Length	0		9.2.2.36		_	
DL DPCH Information		01	3.2.2.00		YES	reject
>TFCS	0	01	9.2.1.63	TFCS for the DL.	-	10,000
>DL DPCH Slot Format	0		9.2.2.9	52.	_	
>Number of DL	0		9.2.2.26A		_	
Channelisation Codes			3.2.2.207			
>TFCI Signalling Mode	0		9.2.2.46		_	
>TFCI Presence	C-		9.2.1.55		_	
>TFCI Flesence	SlotFormat		9.2.1.00		_	
>Multiplexing Position	O		9.2.2.26		_	
>Limited Power Increase	0		9.2.2.21A		_	
					_	
>Split Type	0		9.2.2.39a		YES	reject
>Length of TFCI2	0		9.2.2.21C		YES	reject
DCHs to Modify	0		FDD DCHs		YES	reject
DOI 10 to Modify			to Modify		'L'	16,601
			9.2.2.13C			
DCHs to Add	0		DCH FDD		YES	reject
			Information		0	. 5,001
			9.2.2.4A			
DCHs to Delete		0 <maxnoof< td=""><td></td><td></td><td>GLOBAL</td><td>reject</td></maxnoof<>			GLOBAL	reject
		DCHs>				,
>DCH ID	М		9.2.1.16		_	
DSCHs to Modify		01			YES	reject
>DSCH Info		0 <maxnoof DSCHs></maxnoof 			_	,
>>DSCH ID	М		9.2.1.26A		_	
>>TrCh Source Statistics Descriptor	0		9.2.1.65		_	
>>Transport Format Set	0		9.2.1.64	For DSCH	_	
>>Allocation/ Retention Priority	0		9.2.1.1		_	
>>Scheduling Priority Indicator	0		9.2.1.51A		_	
>>BLER	0		9.2.1.4		_	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>Transport Bearer	М		9.2.1.61		_	
Request Indicator						
>>Traffic Class	0		9.2.1.58A		YES	ignore
>>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
>>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
>PDSCH RL ID	0		RL ID 9.2.1.49		_	
>TFCS	0		9.2.1.63	For DSCH		
>Enhanced DSCH PC Indicator	0		9.2.2.13F		YES	ignore
>Enhanced DSCH PC	C- EDSCHPC On		9.2.2.13D		YES	ignore
DSCHs to Add	0		DSCH FDD Information 9.2.2.13A		YES	reject
DSCHs to Delete		01			YES	reject
>DSCH Info		1 <maxnoof DSCHs></maxnoof 			_	
>>DSCH ID	M		9.2.1.26A		_	
RL Information		0 <maxnoof RLs></maxnoof 			EACH	reject
>RL ID	М		9.2.1.49		_	
>SSDT Indication	0		9.2.2.42		_	
>SSDT Cell Identity	C - SSDTIndON		9.2.2.40		_	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.48		_	
>SSDT Cell Identity for EDSCHPC	C- EDSCHPC		9.2.2.40A		YES	ignore
>DL Reference Power	0		DL Power 9.2.1.21A	Power on DPCH	YES	ignore
>RL Specific DCH Information	0		9.2.1.49A		YES	ignore
>DL DPCH Timing Adjustment	0		9.2.2.9A	Required RL Timing Adjustment	YES	reject
Transmission Gap Pattern Sequence Information	0		9.2.2.47A		YES	reject
HS-DSCHs Information To Modify	0		HS-DSCH Information To modify 9.2.1.30Q		YES	reject
HS-DSCHs Information To Add	0		HS-DSCH FDD Information 9.2.2.19a		YES	reject
HS-DSCHs Information To Delete		0 <maxnoof MACdFlows ></maxnoof 			GLOBAL	reject
>HS-DSCH MAC-d Flow ID	М		9.2.1.300		_	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
HS-PDSCH RL ID	0		RL ID 9.2.1.53		YES	reject

Condition	Explanation
SSDTIndON	The IE shall be present if the SSDT Indication IE is
	set to "SSDT Active in the UE".
CodeLen	The IE shall be present only if the Min UL
	Channelisation Code length IE equals to 4.
SlotFormat	The IE shall only be present if the DL DPCH Slot
	Format IE is equal to any of the values from 12 to 16.
Diversity mode	The IE shall be present if <i>Diversity Mode</i> IE is present
	in the UL DPCH Information IE and is not equal to
	"none".
EDSCHPCOn	The IE shall be present if the Enhanced DSCH PC
	Indicator IE is set to "Enhanced DSCH PC Active in
	the UE".
EDSCHPC	The IE shall be present if Enhanced DSCH PC IE is
	present in either the DSCHs to Modify IE or the
	DSCHs to Add IF.

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows

9.1.11.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	,
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL CCTrCH to Add		0 <maxno ofCCTrCH s></maxno 	0.2	For DCH and USCH	EACH	notify
>CCTrCH ID	M		9.2.3.2		-	
>TFCS	M		9.2.1.63	For the UL.	_	
>TFCI Coding	M		9.2.3.11		_	
>Puncture Limit	M		9.2.1.40		_	
> UL SIR Target	0		Uplink SIR 9.2.1.69	Mandatory for 1.28Mcps TDD; not applicable for 3.84Mcps TDD	YES	reject
UL CCTrCH to Modify		0 <maxno ofCCTrCH s></maxno 			EACH	notify
>CCTrCH ID	М		9.2.3.2		_	
>TFCS	0		9.2.1.63	For the UL.		
>TFCI Coding	0		9.2.3.11		_	
>Puncture Limit	0		9.2.1.46		1	
> UL SIR Target	0		Uplink SIR 9.2.1.69	For 1.28Mcps TDD only	YES	reject
UL CCTrCH toDdelete		0 <maxno ofCCTrCH s></maxno 			EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
DL CCTrCH to Add		0 <maxno ofCCTrCH s></maxno 		For DCH and DSCH	EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
>TFCS	M		9.2.1.63	For the DL.	_	
>TFCI Coding	M		9.2.3.11		_	
>Puncture Limit	M		9.2.1.46		_	
>TPC CCTrCH List		0 to <maxnoc CTrCH></maxnoc 		List of uplink CCTrCH which provide TPC	-	
>>TPC CCTrCH ID	М		CCTrCH ID 9.2.3.2		-	
DL CCTrCH to Modify		0 <maxno ofCCTrCH s></maxno 			EACH	notify
>CCTrCH ID	М		9.2.3.2		_	
>TFCS	0		9.2.1.63	For the DL.	_	
>TFCI Coding	0		9.2.3.11		_	
>Puncture Limit	0		9.2.1.46			
>TPC CCTrCH List		0 to <maxnoc CTrCH></maxnoc 		List of uplink CCTrCH which provide TPC	-	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.2		_	
DL CCTrCH to Delete		0 <maxno ofCCTrCH s></maxno 			EACH	notify

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
007.01110			Reference			
>CCTrCH ID DCHs to Modify	M O		9.2.3.2 TDD DCHs to Modify 9.2.3.8B		YES	reject
DCHs to Add	0		DCH TDD Information 9.2.3.2A		YES	reject
DCHs to Delete		0 <maxno ofDCHs></maxno 			GLOBAL	reject
>DCH ID	M		9.2.1.16		-	
DSCHs to Modify		0 <maxno ofDSCHs></maxno 			GLOBAL	reject
>DSCH ID	М		9.2.1.26A		_	
>CCTrCH ld	0		9.2.3.2	DL CCTrCH in which the DSCH is mapped.	_	
>TrCh Source Statistics Descriptor	0		9.2.1.65		_	
>Transport Format Set	0		9.2.1.64		_	
>Allocation/Retention Priority	0		9.2.1.1		_	
>Scheduling Priority Indicator	0		9.2.1.51A		_	
>BLER	0		9.2.1.4		_	
>Transport Bearer Request Indicator	М		9.2.1.61		_	
>Traffic Class	0		9.2.1.58A		YES	ignore
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishmen t with ALCAP.	YES	ignore
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishmen t with ALCAP.	YES	ignore
DSCHs to Add	0		DSCH TDD Information 9.2.3.3a		YES	reject
DSCHs to Delete		0 <maxno ofDSCHs></maxno 			GLOBAL	reject
>DSCH ID	М		9.2.1.26A		_	
USCHs to Modify		0 <maxno ofUSCHs></maxno 			GLOBAL	reject
>USCH ID	M		9.2.3.14		_	
>CCTrCH ld	0		9.2.3.2	UL CCTrCH in which the USCH is mapped.	_	
>TrCh Source Statistics Descriptor	0		9.2.1.65		_	
>Transport Format Set	0		9.2.1.64		-	
>Allocation/Retention Priority	0		9.2.1.1		_	
>Scheduling Priority Indicator	0		9.2.1.51A		_	
>BLER	0		9.2.1.4		_	
>Transport Bearer	M		9.2.1.61		_	

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	2 cooring in on		Criticality
Request Indicator						
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishmen t with ALCAP.	YES	ignore
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishmen t with ALCAP.	YES	ignore
>RB Info		0 to <maxnoof RB></maxnoof 		All Radio Bearers using this USCH	-	
>>RB Identity	M		9.2.3.5B		_	
>Traffic class	0		9.2.1.58A		YES	ignore
USCHs to Add	0		USCH Information 9.2.3.15		YES	reject
USCHs to Delete		0 <maxno ofUSCHs></maxno 			GLOBAL	reject
>USCH ID	M		9.2.3.14		_	
RL Information		01			YES	ignore
>RL ID	M		9.2.1.49		_	
>RL Specific DCH Information	0		9.2.1.49A		-	
Primary CCPCH RSCP	0		9.2.3.5		YES	ignore
DL Time Slot ISCP Info	0		9.2.3.2D	For 3.84Mcps TDD only	YES	ignore
DL Time Slot ISCP Info LCR	0		9.2.3.2F	For 1.28Mcps TDD only	YES	ignore
HS-DSCH Information To Modify	0		HS-DSCH Information To Modify 9.2.1.30Q		YES	reject
HS-DSCH Information To Add	0		HS-DSCH TDD Information 9.2.3.3aa		YES	reject
HS-DSCH Information To Delete		0 <maxno ofMACdFl ows></maxno 			GLOBAL	reject
>HS-DSCH MAC-d Flow ID	M		9.2.1.300			
HS-PDSCH RL ID	0		RL ID 9.2.1.53		YES	reject

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofUSCHs	Maximum number of USCHs for one UE.
MaxnoofMACdFlows	Maximum number of HS-DSCH MAC-d flows

9.1.12 RADIO LINK RECONFIGURATION READY

9.1.12.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information Response		0 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	M		9.2.1.49		_	
>Maximum Uplink SIR	0		Uplink SIR 9.2.1.69		_	
>Minimum Uplink SIR	0		Uplink SIR 9.2.1.69		_	
>Maximum DL TX Power	0		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	0		DL Power 9.2.1.21A		_	
>Secondary CCPCH Info	0		9.2.2.37B		_	
>DL Code Information	0		FDD DL Code Information 9.2.2.14A		YES	ignore
>DCH Information Response	0		9.2.1.16A		YES	ignore
>DSCHs to be Added or Modified	0		DSCH FDD Information Response 9.2.2.13B		YES	ignore
>DL Power Balancing Updated Indicator	0		9.2.2.10D		YES	ignore
>HS-DSCH Information Response	0		HS-DSCH FDD Information Response 9.2.2.19b		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
DSCH-RNTI	0		9.2.2.13Bb		YES	ignore
HS-DSCH-RNTI	0		9.2.1.30P		YES	reject

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for a UE.

9.1.12.2 TDD Message

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	_		_
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information Response		01			YES	ignore
>RL ID	M		9.2.1.49		_	
>Maximum Uplink SIR	0		Uplink SIR		_	
			9.2.1.69			
>Minimum Uplink SIR	0		Uplink SIR 9.2.1.69		_	
>Maximum DL TX Power	0		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	0		DL Power 9.2.1.21A		_	
>Secondary CCPCH Info TDD	0		9.2.3.7B		_	
>UL CCTrCH Information		0 <maxnoof CCTrCHs></maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	M	COTIONS>	9.2.3.2	+		
>>UL DPCH to be	IVI	01	9.2.3.2	For	YES	ignore
Added		01		3.84Mcps TDD only	123	ignore
>>>Repetition Period	М		9.2.3.7	- /	_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH	М		9.2.3.8A		_	
Offset						
>>> Rx Timing Deviation	0		9.2.3.7A		_	
>>>UL Timeslot Information	М		9.2.3.13C		_	
>>UL DPCH to be		01		For	YES	ignore
Added LCR				1.28Mcps TDD only	. =0	ig.io.c
>>>Repetition Period	М		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	М		9.2.3.8A		_	
>>>UL Timeslot Information LCR	М		9.2.3.13G		_	
>>UL DPCH to be Modified		01			YES	ignore
>>>Repetition Period	0		9.2.3.7		_	
>>>Repetition Length	Ō		9.2.3.6		_	
>>>TDD DPCH Offset	0		9.2.3.8A		_	
>>>UL Timeslot		0 to		For	_	
Information		<maxnooft S></maxnooft 		3.84Mcps TDD only		
>>>>Time Slot	М		9.2.1.56		_	
>>>Midamble Shift and Burst	O		9.2.3.4		_	
Туре	<u> </u>					
>>>TFCI Presence	0		9.2.1.55		_	
>>>UL Code Information		0 to <maxnoofd PCH></maxnoofd 			-	
>>>>DPCH ID	М		9.2.3.3		_	
>>>>TDD Channelisation Code	0		9.2.3.8		_	
>>>UL Timeslot	1	1	1	For	GLOBAL	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Information LCR		<maxnooft SLCR></maxnooft 		1.28Mcps TDD only		
>>>Time Slot LCR	М		9.2.3.12a		_	
>>>Midamble Shift LCR	0		9.2.3.4C		_	
>>>TFCI Presence	0		9.2.1.55		_	
>>>>UL Code Information LCR		0 to <maxnoofd PCHLCR></maxnoofd 			GLOBAL	ignore
>>>>DPCH ID	М		9.2.3.3		_	
>>>>TDD Channelisation Code LCR	0		9.2.3.8a		_	
>>UL DPCH to be Deleted		0 <maxnoof DPCHs></maxnoof 			GLOBAL	ignore
>>>DPCH ID	M		9.2.3.3		_	
>DL CCTrCH Information		0 <maxnoof CCTrCHs></maxnoof 		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		_	
>>DL DPCH to be Added		01		For 3.84Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>DL Timeslot Information	М		9.2.3.2C		_	
>>DL DPCH to be Added LCR		01		For 1.28Mcps TDD only	YES	ignore
>>>Repetition Period	M		9.2.3.7		_	
>>>Repetition Length	M		9.2.3.6		_	
>>>TDD DPCH Offset	M		9.2.3.8A		_	
>>>DL Timeslot Information LCR	М		9.2.3.2E		_	
>>DL DPCH to be Modified		01			YES	ignore
>>>Repetition Period	0		9.2.3.7		_	
>>>Repetition Length	0		9.2.3.6		_	
>>>TDD DPCH Offset	0		9.2.3.8A		_	
>>>DL Timeslot Information		0 to <maxnooft S></maxnooft 		For 3.84Mcps TDD only	_	
>>>>Time Slot	М		9.2.1.56		-	
>>>Midamble Shift and Burst Type	0		9.2.3.4		_	
>>>>TFCI Presence	0		9.2.1.55		_	
>>>>DL Code Information		0 to <maxnoofd PCH></maxnoofd 			_	
>>>>DPCH ID	М		9.2.3.3		_	
>>>>TDD Channelisation Code	0		9.2.3.8		-	
>>>DL Timeslot Information LCR		0 to <maxnooft SLCR></maxnooft 		For 1.28Mcps TDD only	GLOBAL	ignore
>>>>Time Slot LCR	М		9.2.3.12a		_	
>>>>Midamble Shift LCR	0		9.2.3.4C		_	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>>>TFCI Presence	0		9.2.1.55		_	
>>>DL Code Information LCR		0 to <maxnoofd PCHLCR></maxnoofd 			GLOBAL	ignore
>>>>DPCH ID	M		9.2.3.3		_	
>>>>TDD Channelisation Code LCR	0		9.2.3.8a		_	
>>DL DPCH to be Deleted		0 <maxnoof DPCHs></maxnoof 			GLOBAL	ignore
>>>DPCH ID	М		9.2.3.3		_	
>DCH Information Response	0		9.2.1.16A		YES	ignore
>DSCH to be Added or Modified		0 <maxnoof DSCHs></maxnoof 			GLOBAL	ignore
>>DSCH ID	M		9.2.1.26A		_	
>>Transport Format Management	M		9.2.3.13		_	
>>DSCH Flow Control Information	М		9.2.1.26B		_	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		_	
>USCH to be Added or Modified		0 <maxnoof USCHs></maxnoof 			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		_	
>>Transport Format Management	M		9.2.3.13		_	
>>Binding ID	0		9.2.1.3		_	
>>Transport Layer Address	0		9.2.1.62		_	
>HS-DSCH Information Response	0		HS-DSCH TDD Information Response 9.2.3.3ab		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
HS-DSCH-RNTI	0		9.2.1.30P		YES	reject

Range bound	Explanation
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofUSCHs	Maximum number of USCHs for one UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
MaxnoofTS	Maximum number of Timeslots for a UE for 3.84Mcps TDD.
MaxnoofDPCH	Maximum number of DPCH for a UE for 3.84Mcps TDD
MaxnoofTSLCR	Maximum number of Timeslots for a UE for 1.28Mcps TDD
MaxnoofDPCHLCR	Maximum number of DPCH for a UE for 1.28Mcps TDD

9.1.13 RADIO LINK RECONFIGURATION COMMIT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
CFN	M		9.2.1.9		YES	ignore
Active Pattern Sequence Information	0		9.2.2.A	FDD only	YES	ignore

9.1.14 RADIO LINK RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		1	
CHOICE Cause Level	M				YES	ignore
>General					-	
>>Cause	M		9.2.1.5		1	
> RL Specific					-	
>>RLs Causing Reconfiguration Failure		0 <maxnoof RLs></maxnoof 			EACH	ignore
>>>RL ID	M		9.2.1.49		_	
>>>Cause	M		9.2.1.5		_	
Criticality Diagnostics	0		9.2.1.13		YES	ignore

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for a UE.

9.1.15 RADIO LINK RECONFIGURATION CANCEL

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	

9.1.16 RADIO LINK RECONFIGURATION REQUEST

9.1.16.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		ı	
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL DPCH Information		01			YES	reject
>TFCS	0		9.2.1.63	TFCS for the UL.	-	
DL DPCH Information		01			YES	reject
>TFCS	0		9.2.1.63	TFCS for the DL.	-	
>TFCI Signalling Mode	0		9.2.2.46		_	
>Limited Power Increase	0		9.2.2.21A		_	
DCHs to Modify	0		FDD DCHs to Modify 9.2.2.13C		YES	reject
DCHs to Add	0		DCH FDD Information 9.2.2.4A		YES	reject
DCHs to Delete		0 <maxno ofDCHs></maxno 			GLOBAL	reject
>DCH ID	M		9.2.1.16		ı	
Transmission Gap Pattern Sequence Information	0		9.2.2.47A		YES	reject
RL Information		0 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	М		9.2.1.49		_	
>RL Specific DCH Information	0		9.2.1.49A		_	
DL Reference Power Information	0		9.2.2.10C		YES	ignore

9.1.16.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
Allowed Queuing Time	0		9.2.1.2		YES	reject
UL CCTrCH Information to Modify		0 <maxnoof CCTrCHs></maxnoof 			EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
>TFCS	0		9.2.1.63		_	
UL CCTrCH Information to Delete		0 <maxnoof CCTrCHs></maxnoof 			EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
DL CCTrCH Information to Modify		0 <maxnoof CCTrCHs></maxnoof 			EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
>TFCS	0		9.2.1.63		_	
DL CCTrCH Information to Delete		0 <maxnoof CCTrCHs></maxnoof 			EACH	notify
>CCTrCH ID	M		9.2.3.2		_	
DCHs to Modify	0		TDD DCHs to Modify 9.2.3.8B		YES	reject
DCHs to Add	0		DCH TDD Information 9.2.3.2A		YES	reject
DCHs to Delete		0 <maxnoof DCHs></maxnoof 			GLOBAL	reject
>DCH ID	М		9.2.1.16		_	
RL Information		01			YES	ignore
>RL ID	M		9.2.1.49		_	
>RL Specific DCH Information	0		9.2.1.49A		_	

Range Bound	Explanation
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.

9.1.17 RADIO LINK RECONFIGURATION RESPONSE

9.1.17.1 FDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information Response		0 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	M		9.2.1.49		-	
>Maximum Uplink SIR	0		Uplink SIR 9.2.1.69		_	
>Minimum Uplink SIR	0		Uplink SIR 9.2.1.69		_	
>Maximum DL TX Power	0		DL Power 9.2.1.21A		_	
>Minimum DL TX Power	0		DL Power 9.2.1.21A		_	
>Secondary CCPCH Info	0		9.2.2.37B		_	
>DCH Information Response	0		9.2.1.16A		YES	ignore
>DL Code Information	0		FDD DL Code Information 9.2.2.14A		YES	ignore
>DL Power Balancing Updated Indicator	0		9.2.2.10D		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

Range Bound	Explanation			
MaxnoofRLs	Maximum number of RLs for a UE.			

9.1.17.2 TDD Message

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	2000.ipiioii		or initiality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information Response		01			YES	ignore
>RL ID	M		9.2.1.49		_	
>Maximum Uplink SIR	0		Uplink SIR		_	
			9.2.1.69			
>Minimum Uplink SIR	0		Uplink SIR		_	
			9.2.1.69			
>Maximum DL TX Power	0		DL Power		_	
			9.2.1.21A			
>Minimum DL TX Power	0		DL Power		_	
			9.2.1.21A			
>DCH Information	0		9.2.1.16A		YES	ignore
Response						
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.18 RADIO LINK FAILURE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
CHOICE Reporting Object	M			Object for which the Failure shall be reported.	YES	ignore
>RL					_	
>>RL Information		1 <maxnoofrl s></maxnoofrl 			EACH	ignore
>>>RL ID	M		9.2.1.49		_	
>>>Cause	M		9.2.1.5		_	
>RLS				FDD only	_	
>>RL Set Information		1 <maxnoofrl Sets></maxnoofrl 			EACH	ignore
>>>RL Set ID	M		9.2.2.35		_	
>>>Cause	M		9.2.1.5		_	
>CCTrCH				TDD only		
>>RL ID	M		9.2.1.53		_	
>>CCTrCH List		1 to <maxnocct rCH></maxnocct 			EACH	ignore
>>>CCTrCH ID	M		9.2.3.2		_	
>>>Cause	M		9.2.1.5		_	

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofRLSets	Maximum number of RL Sets for one UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.

9.1.19 RADIO LINK RESTORE INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	
CHOICE Reporting Object	M			Object for which the Restoration shall be reported.	YES	ignore
>RL					-	
>>RL Information		1 <maxno ofRLs></maxno 			EACH	ignore
>>>RL ID	M		9.2.1.49		1	
>RLS				FDD only	1	
>>RL Set Information		1 <maxno ofRLSet s></maxno 			EACH	ignore
>>>RL Set ID	M		9.2.2.35		_	
>CCTrCH				TDD only		
>>RL ID	M		9.2.1.53		_	
>>CCTrCH List		1 to <maxno CCTrC H></maxno 			EACH	ignore
>>>CCTrCH ID	M		9.2.3.2		_	

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofRLSets	Maximum number of RL Sets for one UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.

9.1.20 DL POWER CONTROL REQUEST [FDD]

IE/Group Name	Presence	Range	IE type and	Semantics description	Criticality	Assigned Criticality
			reference	description		Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	М		9.2.1.59		_	
Power Adjustment Type	М		9.2.2.28		YES	ignore
DL Reference Power	C- Common		DL Power 9.2.1.21A		YES	ignore
Inner Loop DL PC Status	0		9.2.2.21a		YES	ignore
DL Reference Power Information	C- Individual	1 <maxnoo fRLs></maxnoo 			GLOBAL	ignore
>RL ID	M		9.2.1.49		_	
>DL Reference Power	М		DL Power 9.2.1.21A		_	
Max Adjustment Step	C- CommonO rIndividual		9.2.2.23		YES	ignore
Adjustment Period	C- CommonO rIndividual		9.2.2.B		YES	ignore
Adjustment Ratio	C- CommonO rIndividual		9.2.2.C		YES	ignore

Condition	Explanation
Common	The IE shall be present if the Power Adjustment Type IE is set to
	"Common".
Individual	The IE shall be present if the Power Adjustment Type IE is set to
	"Individual".
CommonOrIndividual	The IE shall be present if the Power Adjustment Type IE is set to
	"Common" or "Individual".

Range Bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.

9.1.21 PHYSICAL CHANNEL RECONFIGURATION REQUEST

9.1.21.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
RL Information		1			YES	reject
>RL ID	M		9.2.1.49		_	
>DL Code Information	М		FDD DL Code Information 9.2.2.14A		YES	notify

9.1.21.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	. 0,001
RL Information	100	1	0.2.1.00		YES	reject
>RL ID	М	'	9.2.1.49		-	TOJOOL
>UL CCTrCH Information	IVI	0	3.2.1.43		GLOBAL	reject
		<maxnoof CCTrCHs></maxnoof 			GLOBAL	reject
>>CCTrCH ID	M		9.2.3.2		_	
>>UL DPCH Information		1			YES	notify
>>>Repetition Period	0		9.2.3.7		_	
>>>Repetition Length	0		9.2.3.6		_	
>>>TDD DPCH Offset	0		9.2.3.8A		_	
>>>UL Timeslot		0 to		For	_	
Information		<maxnoof TS></maxnoof 		3.84Mcps TDD only		
>>>Time Slot	M		9.2.1.56		_	
>>>Midamble Shift	0		9.2.3.4		_	
and Burst Type						
>>>TFCI Presence	0		9.2.1.55		_	
>>>UL Code	0		TDD UL		_	
Information			Code Information 9.2.3.10A			
>>>UL Timeslot		0 to		For	GLOBAL	reject
Information LCR		<maxnoof TSLCR></maxnoof 		1.28Mcps TDD only		. 0,001
>>>>Time Slot LCR	M		9.2.3.12a		_	
>>>Midamble Shift	0		9.2.3.4C		_	
LCR						
>>>>TFCI Presence	0		9.2.1.55		_	
>>>>UL Code Information LCR	0		TDD UL Code Information LCR 9.2.3.10B		-	
>DL CCTrCH Information		0 <maxno ofCCTrCH s></maxno 			GLOBAL	reject
>>CCTrCH ID	М		9.2.3.2		_	
>>DL DPCH Information		1			YES	notify
>>>Repetition Period	0		9.2.3.7		_	,
>>>Repetition Length	Ō		9.2.3.6		_	
>>>TDD DPCH Offset	0		9.2.3.8A		_	
>>>DL Timeslot		0 to		For	_	
Information		<maxnoof TS></maxnoof 		3.84Mcps TDD only		
>>>>Time Slot	М		9.2.1.56		_	
>>>>Midamble Shift and Burst Type	0		9.2.3.4		_	
>>>TFCI Presence	0		9.2.1.55			
>>>>DL Code Information	0		TDD DL Code Information 9.2.3.8C		_	
>>>DL Timeslot Information LCR		0 to <maxnoof TSLCR></maxnoof 		For 1.28Mcps TDD only	GLOBAL	reject
>>>>Time Slot LCR	М		9.2.3.12a	j	_	
>>>>Midamble Shift LCR	0		9.2.3.4C		_	
>>>>TFCI Presence	0		9.2.1.55	1	_	

>>>>DL Code	0	TDD DL	_	
Information LCR		Code		
		Information		
		LCR		
		9.2.3.8D		

Range bound	Explanation
MaxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
MaxnoofTS	Maximum number of Timeslots for a UE for 3.84Mcps TDD.
MaxnoofTSLCR	Maximum number of Timeslots for a UE for 1.28Mcps TDD.

9.1.22 PHYSICAL CHANNEL RECONFIGURATION COMMAND

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
CFN	M		9.2.1.9		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.23 PHYSICAL CHANNEL RECONFIGURATION FAILURE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
Cause	М		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.24 UPLINK SIGNALLING TRANSFER INDICATION

9.1.24.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	_
UC-Id	M		9.2.1.71		YES	ignore
SAI	M		9.2.1.52		YES	ignore
Cell GAI	0		9.2.1.5A		YES	ignore
C-RNTI	M		9.2.1.14		YES	ignore
S-RNTI	M		9.2.1.54		YES	ignore
D-RNTI	0		9.2.1.24		YES	ignore
Propagation Delay	M		9.2.2.33		YES	ignore
STTD Support Indicator	M		9.2.2.45		YES	ignore
Closed Loop Mode1 Support Indicator	M		9.2.2.2		YES	ignore
Closed Loop Mode2 Support Indicator	М		9.2.2.3		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
URA Information	0		9.2.1.70B		YES	ignore
Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
DPC Mode Change Support Indicator	0		9.2.2.56		YES	ignore
Common Transport Channel Resources Initialisation not required	0		9.2.1.12F		YES	Ignore
Cell Capability Container FDD	0		9.2.2.D		YES	ignore
Cell Capability Container TDD	0		9.2.3.1a		YES	ignore
Cell Capability Container TDD LCR	0		9.2.3.1b		YES	ignore

9.1.24.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	
UC-Id	M		9.2.1.71		YES	ignore
SAI	M		9.2.1.52		YES	ignore
Cell GAI	0		9.2.1.5A		YES	Ignore
C-RNTI	M		9.2.1.14		YES	ignore
S-RNTI	M		9.2.1.54		YES	ignore
D-RNTI	0		9.2.1.24		YES	ignore
Rx Timing Deviation	M		9.2.3.7A		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
CN PS Domain Identifier	0		9.2.1.12		YES	ignore
CN CS Domain Identifier	0		9.2.1.11		YES	ignore
URA Information	0		9.2.1.70B		YES	ignore
Cell GA Additional Shapes	0		9.2.1.5B		YES	ignore
Common Transport Channel Resources Initialisation not required	0		9.2.1.12F		YES	ignore
Cell Capability Container FDD	0		9.2.2.D		YES	ignore
Cell Capability Container TDD	0		9.2.3.1a		YES	ignore
Cell Capability Container TDD LCR	0		9.2.3.1b		YES	ignore

9.1.25 DOWNLINK SIGNALLING TRANSFER REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	
C-ld	M		9.2.1.6		YES	ignore
D-RNTI	M		9.2.1.24		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
D-RNTI Release Indication	M		9.2.1.25		YES	ignore

9.1.26 RELOCATION COMMIT

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
D-RNTI	0		9.2.1.24		YES	ignore
RANAP Relocation Information	0		9.2.1.47		YES	ignore

9.1.27 PAGING REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	<u> </u>
CHOICE Paging Area	М				YES	ignore
>URA					_	
>>URA-ID	M		9.2.1.70		_	
>Cell					_	
>>C-Id	M		9.2.1.6		_	
SRNC-Id	M		RNC-Id 9.2.1.50		YES	ignore
S-RNTI	М		9.2.1.53		YES	ignore
IMSI	M		9.2.1.31		YES	ignore
DRX Cycle Length Coefficient	M		9.2.1.26		YES	ignore
CN Originated Page to Connected Mode UE		01			YES	ignore
>Paging Cause	M		9.2.1.41E		-	
>CN Domain Type	M		9.2.1.11A		_	
>Paging Record Type	M		9.2.1.41F		_	

9.1.28 DEDICATED MEASUREMENT INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		ı	
Measurement Id	M		9.2.1.37		YES	reject
Dedicated Measurement Object Type	М		9.2.1.17		YES	reject
CHOICE Dedicated Measurement Object Type	М				YES	reject
>RL					_	
>>RL Information		1 <maxn oofRLs></maxn 			EACH	reject
>>>RL-ID	M		9.2.1.49		_	
>>>DPCH ID	0		9.2.3.3	TDD only	-	
>RLS				FDD only	-	
>>RL Set Information		1 <maxn oofRLSet s></maxn 			EACH	reject
>>>RL-Set-ID	M		9.2.2.35		-	
>ALL RL			NULL		_	
>ALL RLS			NULL	FDD only	_	
Dedicated Measurement Type	M		9.2.1.18		YES	reject
Measurement Filter Coefficient	0		9.2.1.36		YES	reject
Report Characteristics	M		9.2.1.48		YES	reject
CFN reporting indicator	M		FN reporting indicator 9.2.1.28A		YES	reject
CFN	0		9.2.1.9		YES	reject

Range bound	Explanation
MaxnoofRLs	Maximum number of individual RLs a measurement can be started on.
MaxnoofRLSets	Maximum number of individual RL Sets a measurement can be started
	on.

9.1.29 DEDICATED MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
Measurement Id	М		9.2.1.37		YES	ignore
CHOICE Dedicated Measurement Object Type	0			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>RL or ALL RL					-	
>>RL Information		1 <maxno ofRLs></maxno 			EACH	ignore
>>>RL ID	M		9.2.1.49		_	
>>>DPCH ID	0		9.2.3.3	TDD only	_	
>>>Dedicated Measurement Value	M		9.2.1.19		ı	
>>>CFN	0		9.2.1.9	Dedicated Measuremen t Time Reference	-	
>RLS or ALL RLS				FDD only	_	
>>RL Set Information		1 <maxno ofRLSets></maxno 			EACH	ignore
>>>RL Set ID	М		9.2.2.35		_	
>>>Dedicated Measurement Value	M		9.2.1.19		_	
>>>CFN	0		9.2.1.9	Dedicated Measuremen t Time Reference	-	
Criticality Diagnostics	0		9.2.1.13		YES	Ignore

Range bound	Explanation
MaxnoofRLs	Maximum number of individual RLs the measurement can be started on.
MaxnoofRLSets	Maximum number of individual RL Sets the measurement can be started on.

9.1.30 DEDICATED MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
Measurement Id	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.31 DEDICATED MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	М		9.2.1.59		_	<u> </u>
Measurement Id	М		9.2.1.37		YES	ignore
CHOICE Dedicated Measurement Object Type	M			Dedicated Measuremen t Object Type the measuremen t was initiated with	YES	ignore
>RL or ALL RL					_	
>>RL Information		1 <maxnoo fRLs></maxnoo 			EACH	ignore
>>>RL-ID	M		9.2.1.49		_	
>>>DPCH ID	0		9.2.3.3	TDD only	_	
>>>Dedicated Measurement Value Information	M		9.2.1.19A		_	
>RLS or ALL RLS				FDD only	_	
>>RL Set Information		1 <maxnoo fRLSets></maxnoo 			EACH	ignore
>>>RL Set ID	M		9.2.2.35		_	
>>>Dedicated Measurement Value Information	M		9.2.1.19A		-	

Range bound	Explanation
MaxnoofRLs	Maximum number of individual RLs the measurement can be started
	on.
MaxnoofRLSets	Maximum number of individual RL Sets the measurement can be started on.

9.1.32 DEDICATED MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
Measurement Id	M		9.2.1.37		YES	ignore

9.1.33 DEDICATED MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	
Measurement Id	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore

9.1.34 COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
D-RNTI	М		9.2.1.24		YES	ignore

9.1.35 COMMON TRANSPORT CHANNEL RESOURCES REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
D-RNTI	М		9.2.1.24		YES	reject
C-ID	0		9.2.1.6		YES	reject
Transport Bearer Request Indicator	М		9.2.1.61	Request a new transport bearer or to use an existing bearer for the user plane.	YES	reject
Transport Bearer ID	М		9.2.1.60	Indicates the lur transport bearer to be used for the user plane.	YES	reject
Permanent NAS UE Identity	0		9.2.1.73		YES	ignore
Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore

9.1.36 COMMON TRANSPORT CHANNEL RESOURCES RESPONSE

9.1.36.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
S-RNTI	M		9.2.1.53		YES	ignore
C-RNTI	0		9.2.1.14		YES	ignore
FACH Info for UE Selected S-CCPCH		1			YES	ignore
>FACH Flow Control Information	М		9.2.1.26C		YES	ignore
Transport Layer Address	0		9.2.1.62		YES	ignore
Binding Identity	0		9.2.1.3		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
C-ID	M		9.2.1.6		YES	ignore

9.1.36.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
S-RNTI	M		9.2.1.53		YES	ignore
C-RNTI	0		9.2.1.14		YES	ignore
FACH Info for UE Selected S-CCPCHs		1			YES	ignore
>FACH Flow Control Information	М		9.2.1.26C		YES	ignore
Transport Layer Address	0		9.2.1.62		YES	ignore
Binding Identity	0		9.2.1.3		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
C-ID	M		9.2.1.6		YES	ignore

9.1.37 COMMON TRANSPORT CHANNEL RESOURCES FAILURE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
S-RNTI	М		9.2.1.53		YES	ignore
Cause	М		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.38 COMPRESSED MODE COMMAND [FDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
Active Pattern Sequence Information	М		9.2.2.A		YES	ignore

9.1.39 ERROR INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	М		9.2.1.59		-	
Cause	0		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
S-RNTI	0		9.2.1.53		YES	ignore
D-RNTI	0		9.2.1.24		YES	ignore

9.1.40 DL POWER TIMESLOT CONTROL REQUEST [TDD]

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
DL Time Slot ISCP Info	0		9.2.3.2D	Mandatory For 3.84Mcps TDD only	YES	ignore
DL Time Slot ISCP Info LCR	0		9.2.3.2F	Mandatory For 1.28Mcps TDD only	YES	ignore
Primary CCPCH RSCP	0		9.2.3.5		YES	ignore

9.1.41 RADIO LINK PREEMPTION REQUIRED INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	М		9.2.1.59		_	
RL Information		0 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	М		9.2.1.49		_	

Range bound	Explanation		
MaxnoofRLs	Maximum number of radio links for one UE		

9.1.42 RADIO LINK CONGESTION INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	
Congestion Cause	0		9.2.1.79		YES	ignore
RL Information		1 <maxno ofRLs></maxno 			EACH	ignore
>RL ID	M		9.2.1.49		_	
>DCH Rate Information		1 <maxno ofDCHs></maxno 			EACH	ignore
>>DCH ID	M		9.2.1.16		_	
>>Allowed Rate Information	М		9.2.1.2A		_	

Range bound	Explanation
MaxnoofRLs	Maximum number of Radio Links for one UE
MaxnoofDCHs	Maximum number of DCHs for one UE.

9.1.43 COMMON MEASUREMENT INITIATION REQUEST

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

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

9.1.44 COMMON MEASUREMENT INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Magaza Tuna	М		9.2.1.40		YES	roicot
Message Type					TES	reject
Transaction ID	M		9.2.1.59		-	
Measurement ID	M		9.2.1.37	_	YES	ignore
CHOICE Common Measurement Object Type	0			Common Measuremen t Object Type that the measuremen t was initiated with.	YES	ignore
>Cell					_	
>>Common Measurement value	М		9.2.1.12D		_	
SFN	0		9.2.1.52A	Common Measuremen t Time Reference	YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore
Common Measurement Achieved Accuracy	0		Common Measurem ent Accuracy 9.2.1.12A		YES	ignore

9.1.45 COMMON MEASUREMENT INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and	Semantics Description	Criticality	Assigned Criticality
			Reference	-		_
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		_	
Measurement ID	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.46 COMMON MEASUREMENT REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
Measurement ID	M		9.2.1.37		YES	ignore
CHOICE Common Measurement Object Type	M			Common Measuremen t Object Type that the measuremen t was initiated with.	YES	ignore
>Cell					_	
>>Common Measurement Value Information	M		9.2.1.12E		-	
SFN	0		9.2.1.52A	Common Measuremen t Time Reference	YES	ignore

9.1.47 COMMON MEASUREMENT TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
Measurement ID	M		9.2.1.37		YES	ignore

9.1.48 COMMON MEASUREMENT FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	
Measurement ID	M		9.2.1.37		YES	ignore
Cause	M		9.2.1.5		YES	ignore

9.1.49 INFORMATION EXCHANGE INITIATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
Information Exchange ID	М		9.2.1.31A		YES	reject
Information Exchange Object Type	M		9.2.1.31B		YES	reject
CHOICE Information Exchange Object Type	М				YES	reject
>Cell					-	
>>C-ID	М		9.2.1.6		YES	reject
Information Type	M		9.2.1.31E		YES	reject
Information Report Characteristics	M		9.2.1.31C		YES	reject

9.1.50 INFORMATION EXCHANGE INITIATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	10,000
Information Exchange ID	M		9.2.1.31A		YES	ignore
CHOICE Information Exchange Object Type	0		9.2.1.31B		YES	ignore
>Cell					-	
>>Requested Data Value	М		9.2.1.48A		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.51 INFORMATION EXCHANGE INITIATION FAILURE

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		-	
Information Exchange ID	M		9.2.1.31A		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.52 INFORMATION REPORT

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	М		9.2.1.59		_	
Information Exchange ID	М		9.2.1.31A		YES	ignore
CHOICE Information Exchange Object Type	М				YES	ignore
>Cell					-	
>>Requested Data Value Information	М		9.2.1.48B		YES	ignore

9.1.53 INFORMATION EXCHANGE TERMINATION REQUEST

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	
Information Exchange ID	M		9.2.1.31A		YES	ignore

9.1.54 INFORMATION EXCHANGE FAILURE INDICATION

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		_	_
Information Exchange ID	M		9.2.1.31A		YES	ignore
Cause	M		9.2.1.5		YES	ignore

9.1.55 RESET REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantic Descripti on	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
RNC-Id	М		9.2.1.50	Identity of the sending RNC	YES	reject
CHOICE Reset Indicator	М				YES	reject
>Context					_	
>>Context Information		1 <maxre setContext ></maxre 			EACH	reject
>>>CHOICE Context Type	М				_	
>>>SRNTI					_	
>>>>S-RNTI	М		9.2.1.53		_	
>>>DRNTI					_	
>>>>D-RNTI	М		9.2.1.24		_	
>All Contexts			NULL	_	_	

Range bound	Explanation
maxResetContext	Maximum number of contexts that can be reset by
	one RESET message.

9.1.56 RESET RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Type	М		9.2.1.40		YES	reject
Transaction ID	М		9.2.1.59		_	
RNC-Id	М		9.2.1.50	Identity of the sending RNC	YES	ignore
Criticality Diagnostics	0		9.2.1.13		YES	ignore

9.1.57 RADIO LINK ACTIVATION COMMAND

9.1.57.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.46	Description	YES	reject
Transaction ID	М		9.2.1.62		-	
Delayed activation		1 <maxnoofrl< td=""><td></td><td></td><td>EACH</td><td>reject</td></maxnoofrl<>			EACH	reject
Information		S>				
>RL ID	М		9.2.1.53		-	
>Delayed Activation	М		9.2.1.19Ab		-	
Update						

9.1.57.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics Description	Criticality	Assigned Criticality
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		_	
Delayed activation		1 <maxnoofrl< td=""><td></td><td></td><td>EACH</td><td>reject</td></maxnoofrl<>			EACH	reject
Information		S>				
>RL ID	M		9.2.1.53		-	
>Delayed Activation Update	М		9.2.1.19Ab		-	

9.2 Information Element Functional Definition and Contents

9.2.0 General

Subclause 9.2 presents the RNSAP IE definitions in tabular format. The corresponding ASN.1 definition is presented in subclause 9.3. In case there is contradiction between the tabular format in subclause 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.

When specifying information elements which are to be represented by bitstrings, if not otherwise specifically stated in the semantics description of the concerned IE or elsewhere, the following principle applies with regards to the ordering of bits:

- The first bit (leftmost bit) contains the most significant bit (MSB);
- The last bit (rightmost bit) contains the least significant bit (LSB);

- When importing bitstrings from other specifications, the first bit of the bitstring contains the first bit of the concerned information;

9.2.1 Common Parameters

This subclause contains parameters that are common to FDD and TDD.

9.2.1.1 Allocation/Retention Priority

This parameter indicates the priority level in the allocation and retention of transport channel resources in DRNS. DRNS may use the Allocation/Retention priority information of the transport channels composing the RL to prioritise requests for RL Setup/addition and reconfiguration. In similar way, DRNS may use the allocation/Retention priority information of the transport channels composing the RL to prioritise which RL shall be set to failure, in case prioritisation is possible. See Annex A.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Priority Level	М		INTEGER {spare (0), highest (1),, lowest (14), no priority (15)} (015)	This IE indicates the priority of the request. Usage: - Values between 1 and 14 are ordered in decreasing order of priority, '1' being the highest and '14' the lowest. Value 15 shall be treated as "no priority". Value 0 shall not be used.
Pre-emption Capability	М		ENUMERAT ED(shall not trigger pre- emption, may trigger pre-emption)	
Pre-emption Vulnerability	М		ENUMERAT ED(not pre- emptable, pre- emptable)	

9.2.1.2 Allowed Queuing Time

This parameter specifies the maximum queuing time that is allowed in the DRNS until the DRNS must start to execute the request.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Allowed Queuing Time			INTEGER(160)	Seconds

9.2.1.2A Allowed Rate Information

The *Allowed Rate Information* IE indicates the TFI corresponding to the highest allowed bit rate for the uplink and/or the downlink of a DCH. The SRNC is allowed to use any rate being lower than or equal to the rate corresponding to the indicated TFI.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Allowed UL Rate	0		INTEGER(0maxTFcount)	
Allowed DL Rate	0		INTEGER(0. .maxTFcount)	

9.2.1.2B Altitude and Direction

This IE contains a description of Altitude and Direction.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Direction of Altitude	M		ENUMERAT ED (Height, Depth)	
Altitude	M		INTEGER (02 ¹⁵ -1)	The relation between the value (N) and the altitude (a) in meters it describes is N≤ a <n+1, except="" for="" n="2<sup">15-1 for which the range is extended to include all grater values of (a).</n+1,>

9.2.1.2C Antenna Co-location Indicator

The Antenna Co-location Indicator indicates whether the antenna of the serving and neighbouring cells are approximately co-located.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Antenna Co-location			ENUMERAT	
Indicator			ED (co-	
			located,)	

9.2.1.3 Binding ID

The Binding ID is the identifier of a user data stream.

In case of transport bearer establishment with ALCAP [3][35], this IE contains the identifier that is allocated at the DRNS and that is unique for each transport bearer under establishment to/from the DRNS.

If the Transport Layer Address contains an IP address [33], this IE contains the UDP port [34] intended to be used for the user plane transport.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Binding ID			OCTET	If the Binding ID includes an
			STRING	UDP port, the UDP port is
			(14,)	included in octet 1 and 2.
				The first octet of the UDP
				port field shall be included in
				the first octet of the Binding
				ID.

9.2.1.4 BLER

This Block Error Rate defines the target radio interface Transport Block Error Rate of the transport channel . BLER is used by the DRNS to determine the needed SIR targets, for admission control and power management reasons.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
BLER			INTEGER (- 630)	Step 0.1. (Range –6.30). It is the Log10 of the BLER

9.2.1.4A Block STTD Indicator

Void.

9.2.1.4B Burst Mode Parameters

The Burst Mode Parameters IE provides all the relevant information in order to able IPDL in the Burst mode.

Information Element/Group name	Presence	Range	IE Type and Reference	Semantics description
Burst Start	М		INTEGER(015)	See [10] and [22]
Burst Length	M		INTEGER(1 025)	See [10] and [22]
Burst freq	M		INTEGER(116)	See [10] and [22]

9.2.1.5 Cause

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

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

	Unspecified,)	

The meaning of the different cause values is described in the following table. In general, "not supported" cause values indicate that the concerning capability is missing. On the other hand, "not available" cause values indicate that the concerning capability is present, but insufficient resources were available to perform the requested action.

Radio Network Layer cause	Meaning
Cell not Available	The concerning cell is not available
Cell reserved for operator use	The concerning cell is reserved for operator use
Combining not Supported	The DRNS does not support the RL combining for the concerning cells
Combining Resources Not	The value of the received <i>Diversity Control Field</i> IE was set to 'Must',
Available	but the DRNS cannot perform the requested combining
CM not Supported	The concerning cell(s) do not support Compressed Mode
Common Transport Channel Type	The concerning cell(s) do not support the RACH and/or FACH and/or
not Supported	CPCH Common Transport Channel Type
Dedicated Transport Channel Type	The concerning cell(s) do not support the Dedicated Transport Channel
not Supported	Туре
Delayed Activation not Supported	The concerning cell(s) do not support delayed activation of RLs
DL Radio Resources not Available	The DRNS does not have sufficient DL radio resources available
DL SF not Supported	The concerning cell(s) do not support the requested DL SF
DL Shared Channel Type not	The concerning cell(s) do not support the Downlink Shared Channel
Supported	Туре
DPC Mode Change not Supported	The concerning cells do not support the DPC mode changes
Information Provision not	The RNS doesn't support provision of the requested information for the
supported for the object	concerned object types
Information temporarily not	The RNS can temporarily not provide the requested information
available	
Invalid CM Settings	The concerning cell(s) consider the requested Compressed Mode settings
	invalid
Measurement not Supported For	At least one of the concerning cell(s) does not support the requested
The Object	measurement on the concerning object type
Measurement Temporarily not	The DRNS can temporarily not provide the requested measurement value
Available	
Number of DL Codes not	The concerning cell(s) do not support the requested number of DL codes
Supported	TTI L CITY 1
Number of UL Codes not	The concerning cell(s) do not support the requested number of UL codes
Supported	A DY
Power Level not Supported	A DL power level was requested which the concerning cell(s) do not
Davian Dalanaina status not	support The power belonging status in the SDNC is not compatible with that of
Power Balancing status not	The power balancing status in the SRNC is not compatible with that of the DRNC.
compatible RL Timing Adjustment not	The concerning cell(s) do not support adjustments of the RL timing
Supported	The concerning cen(s) do not support adjustments of the KL tilling
Reconfiguration CFN not Elapsed	The requested action cannot be performed due to that a COMMIT
Reconfiguration CFW not Elapsed	message was received previously, but the concerning CFN has not yet
	elapsed
Reconfiguration not Allowed	The SRNC does currently not allow the requested reconfiguration
Requested Configuration not	The concerning cell(s) do not support the requested configuration i.e.
Supported	power levels, Transport Formats, physical channel parameters,
Requested Tx Diversity mode not	The concerning cell(s) do not support the requested transmit diversity
•	l mode
Supported	mode The DRNS has already allocated an RL with the requested RL ID for this
•	mode The DRNS has already allocated an RL with the requested RL ID for this UE Context

Transaction not Supported by	The requested action cannot be performed due to lack of support of the
Destination Node B	corresponding action in the destination Node B
UL Radio Resources not Available	The DRNS does not have sufficient UL radio resources available
UL Scrambling Code Already in	The concerning UL scrambling code is already in use for another UE
Use	
UL SF not Supported	The concerning cell(s) do not support the requested minimum UL SF
UL Shared Channel Type not	The concerning cell(s) do not support the Uplink Shared Channel Type
Supported	
Unknown C-ID	The DRNS is not aware of a cell with the provided C-Id
Unspecified	Sent when none of the above cause values applies but still the cause is
	Radio Network Layer related

Transport Network Layer cause	Meaning
Transport resource unavailable	The required transport resources are not available
_	
Unspecified	Sent when none of the above cause values applies but still the cause is
	Transport Network Layer related

Protocol cause	Meaning
Abstract Syntax Error (Reject)	The received message included an abstract syntax error and the
	concerning criticality indicated "reject" (see subclause 10.3)
Abstract Syntax Error (Ignore and	The received message included an abstract syntax error and the
Notify)	concerning criticality indicated "ignore and notify" (see subclause 10.3)
Abstract syntax error (falsely	The received message contained IEs or IE groups in wrong order or with
constructed message)	too many occurrences (see subclause 10.3)
Message not Compatible with	The received message was not compatible with the receiver state (see
Receiver State	subclause 10.4)
Semantic Error	The received message included a semantic error (see subclause 10.4)
Transfer Syntax Error	The received message included a transfer syntax error (see subclause
	10.2)
Unspecified	Sent when none of the above cause values applies but still the cause is
	Protocol related

Miscellaneous cause	Meaning
Control Processing Overload	DRNS control processing overload
Hardware Failure	DRNS hardware failure
Not enough User Plane Processing	DRNS has insufficient user plane processing resources available
Resources	
O&M Intervention	Operation and Maintenance intervention related to DRNS equipment
Unspecified	Sent when none of the above cause values applies and the cause is not
	related to any of the categories Radio Network Layer, Transport Network
	Layer or Protocol.

9.2.1.5A Cell Geographical Area Identity (Cell GAI)

The Cell Geographical Area is used to identify the geographical area of a cell. The area is represented as a polygon. See ref. [25].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell GAI Geographical Co-ordinates		1 <maxnoofpoints></maxnoofpoints>		
>Latitude Sign	M		ENUMERAT ED (North, South)	
>Degrees of Latitude	М		INTEGER (02 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°)
>Degrees of Longitude	M		INTEGER (-2 ²³ 2 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°)

Range bound	Explanation
maxnoofPoints	Maximum no. of points in polygon.

9.2.1.5B Cell Geographical Area Additional Shapes (Cell GAI Additional Shapes)

This IE is used to provide several descriptions of the geographical area of a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Cell GAI				
Additional Shapes				
>GA Point With				
Uncertainty				
>>GA Point With	M		9.2.1.30A	Ellipsoid point with
Uncertainty				uncertainty circle
>GA Ellipsoid point				
with uncertainty Ellipse				
>>GA Ellipsoid	M		9.2.1.30B	Ellipsoid point with
point with uncertainty				uncertainty Ellipse
Ellipse				
>GA Ellipsoid point				
with altitude				
>>GA Ellipsoid	M		9.2.1.30C	Ellipsoid point with altitude
point with altitude				
>GA Ellipsoid point				
with altitude and				
uncertainty Ellipsoid				
>>GA Ellipsoid	M		9.2.1.30D	Ellipsoid point with altitude
point with altitude				and uncertainty Ellipsoid
and uncertainty				·
Ellipsoid				
>GA Ellipsoid Arc				
>>GA Ellipsoid Arc	M	·	9.2.1.30E	Ellipsoid Arc

9.2.1.5C Cell Capacity Class Value

The *Cell Capacity Class Value* IE contains the capacity class for both the uplink and downlink. Cell Capacity Class is the value that classifies the cell capacity with regards to the other cells.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Cell Capacity Class Value	M		INTEGER(1100,)	Value 1 shall indicate the minimum capacity class, and 100 shall indicate the maximum capacity class. Capacity class should be measured on a linear scale.
Downlink Cell Capacity Class Value	M		INTEGER(1100,)	Value 1 shall indicate the minimum capacity class, and 100 shall indicate the maximum capacity class. Capacity class should be measured on a linear scale.

9.2.1.6 Cell Identifier (C-Id)

The C-Id (Cell Identifier) is the identifier of a cell in one RNS.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
C-Id			INTEGER	
			(065535)	

9.2.1.7 Cell Individual Offset

Cell individual offset is an offset that will be applied by UE to the measurement results for a Primary-CPICH[FDD]/ Primary-CCPCH[TDD], before the measurement takes place. This allows operators to easily monitor specific cell, as well as other uses. The offset can be positive or negative, so the measured results can be reported as better than, or worse than what it really is.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell Individual Offset			INTEGER (-20,,+20)	-20 -> -10dB -19 -> -9.5dB +20 -> +10dB

9.2.1.8 Cell Parameter ID

The Cell Parameter ID identifies unambiguously the [3.84 Mcps TDD - Code Groups, Scrambling Codes, Midambles and Toffset] [1.28 Mcps TDD - SYNC-DL and SYNC-UL sequences, the scrambling codes and the midamble codes] (see ref. [20]).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell Parameter ID			INTEGER	
			(0127,)	

9.2.1.9 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)	

9.2.1.10 CFN Offset

Void

9.2.1.11 CN CS Domain Identifier

Identification of the CN node in the CS Domain.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
LAC	M		OCTET STRING (2)	0000 and FFFE not allowed

9.2.1.11A CN Domain Type

Identifies the type of core network domain.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CN Domain Type			ENUMERAT ED (CS domain, PS domain, Don't	See in [16]
			care,)	

9.2.1.12 CN PS Domain Identifier

Identification of the CN Node in the PS Domain.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
LAC	M		OCTET STRING (2)	0000 and FFFE not allowed
RAC	M		OCTET STRING (1)	

9.2.1.12A Common Measurement Accuracy

The Common Measurement Accuracy IE indicates the accuracy of the common measurement.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Common Measurement Accuracy				
>T _{UTRAN-GPS} Measurement Accuracy Class				
>>Tutran-gps Measurement Accuracy Class	M		T _{UTRAN-GPS} Accuracy Class 9.2.1.59B	

9.2.1.12B 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			ENUMERAT	
Object Type			ED	
			(CELL,)	

9.2.1.12C 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 (UTRAN GPS Timing of Cell Frames for LCS, SFN-SFN Observed Time Difference, load, transmitted carrier power, received total wide band power, UL timeslot ISCP,, RT Load, NRT Load Information)	UL timeslot ISCP shall only be used by TDD

9.2.1.12D 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
CHOICE Common Measurement Value				
> T _{UTRAN-GPS} Measurement Value Information				
>>T _{UTRAN-GPS} Measurement Value Information	М		9.2.1.59D	
> SFN-SFN Measurement Value Information				
>>SFN-SFN Measurement Value Information	М		9.2.1.52C	
>Load Value				
>>Load Value	M		9.2.1.33A	
>Transmitted Carrier Power Value				
>>Transmitted Carrier Power Value	M		Transmitted Carrier Power 9.2.1.59A	
>Received Total Wide Band Power Value				
>>Received Total Wide Band Power Value	M		Received Total Wide Band Power 9.2.2.35A	
>UL Timeslot ISCP Value				TDD Only
>>UL Timeslot ISCP Value	M		UL Timeslot ISCP 9.2.3.13A	
>RT Load Value				
>>RT Load Value >NRT Load Information Value	M		9.2.1.50B	
>>NRT Load Information Value	М		9.2.1.411	

9.2.1.12E Common Measurement Value Information

The *Common Measurement Value Information* IE provides information both on whether or not the Common Measurement Value is provided in the message or not and if provided also the Common Measurement Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Measurement	М			
Availability				
>Measurement Available				
>>Common Measurement	M		9.2.1.12D	
Value				
>Measurement not Available			NULL	

9.2.1.12F Common Transport Channel Resources Initialisation not Required

If present, this IE indicates that as far as the DRNC is concerned, there is no need to initiate a Common Transport Channel Resources Initialisation procedure if the SRNC wants to allocate common transport channel resources in the new cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Common Transport			ENUMERAT	
Channel Resources			ED (Not	
Initialisation not Required			Required)	

9.2.1.12G Coverage Indicator

The Coverage Indicator indicates whether the serving and the neighbouring cell are overlapped, i.e. the cells have approximately same coverage area or whether the neighbouring cell covers or contained in the serving cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Coverage Indicator			ENUMERAT	
_			ED (Overlap,	
			Covers,	
			Contained	
			in,)	

9.2.1.13 Criticality Diagnostics

The *Criticality Diagnostics* IE is sent by an RNC when parts of a received message have not been comprehended or were missing, or if the message contained logical errors. When applicable, it contains information about which IEs that were not comprehended or were missing.

For further details on how to use the Criticality Diagnostics IE, see Annex C.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Procedure ID		01		Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error
>Procedure Code	M		INTEGER (0255)	
>Ddmode	M		ENUMERAT ED (FDD, TDD, Common)	Common = common to FDD and TDD.
Triggering Message	0		ENUMERAT ED(initiating message, successful outcome, unsuccessful outcome, outcome,	The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication.
Procedure Criticality	0		ENUMERAT ED(reject, ignore, notify)	This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure).
Transaction ID	0		Transaction ID	
Information Element Criticality Diagnostics		0 <maxnoof errors=""></maxnoof>		
>IE Criticality	M		ENUMERAT ED(reject, ignore, notify)	The IE Criticality is used for reporting the criticality of the triggering IE. The value 'Ignore" shall never be used.
>IE ld	M		INTEGER (065535)	The IE Id of the not understood or missing IE as defined in the ASN.1 part of the specification.
>Repetition Number	O		INTEGER (0255)	The Repetition Number IE gives In case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence In case of a missing IE: The number of occurrences up to but not including the missing occurrence. Note: All the counted occurrences of the reported IE must have the same topdown hierachical message structure of IEs with assigned criticality above them.
>Message Structure	0		9.2.1.39A	The Message Structure IE describes the structure where the not understood or missing IE was detected.

			This IE is included if the not understood IE is not the top level of the message.
>Type of Error	М	ENUMI	MERAT
		ED(not	ot .
		unders	stood,
		missing	ıg,)

Range bound	Explanation
Maxnooferrors	Maximum number of IE errors allowed to be reported with a single
	message.

9.2.1.14 C-RNTI

C-RNTI (Cell RNTI) is the UE identifier allocated by the DRNS to be used over the radio interface. It is unique in the cell. One UE context has one unique C-RNTI value allocated in the DRNS.

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

9.2.1.15 DCH Combination Indicator

Void

9.2.1.16 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 (0255)	

9.2.1.16A DCH Information Response

The DCH Information IE provides information for DCHs that have been established or modified.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
DCH Information Response		1 <maxno ofDCHs></maxno 			_	
>DCH ID	M		9.2.1.16		_	
>Binding ID	0		9.2.1.3		_	
>Transport Layer Address	0		9.2.1.62		_	
>Allowed Rate Information	0		9.2.1.2A		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for one UE.

9.2.1.17 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	Semantics Description
			Reference	
Dedicated Measurement			ENUMERAT	
Object Type			ED (RL,	
			RLS,	
			ALL RL,	
			ALL RLS,)	

9.2.1.18 Dedicated Measurement Type

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

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Dedicated Measurement			ENUMERAT	RSCP is used by TDD only,
Туре			ED (SIR,	Rx Timing Deviation is used
			SIR Error,	by 3.84 TDD only, Rx Timing
			Transmitted	Deviation LCR is used by
			Code Power,	1.28 TDD only,
			RSCP, Rx	Round Trip Time, SIR Error
			Timing	are used by FDD only.
			Deviation,	Angle Of Arrival LCR is used
			Round Trip	by 1.28Mcps TDD only.
			Time,, Rx	
			Timing	
			Deviation	
			LCR, Angle	
			Of Arrival	
			LCR)	

NOTE: For definitions of the measurement types refer to ref. [11] and [14].

9.2.1.19 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
CHOICE Dedicated				
Measurement Value				
>SIR Value				
>>SIR Value	М		INTEGER(063)	According to mapping in ref. [23] and [24]
>SIR Error Value			·	FDD Only
>>SIR Error Value	М		INTEGER(0125)	According to mapping in [23]
>Transmitted Code Power Value				
>>Transmitted Code Power Value	М		INTEGER(0127)	According to mapping in ref. [23] and [24] Values 0 to 9 and 123 to 127 shall not be used.
>RSCP				TDD Only
>>RSCP	М		INTEGER(0127)	According to mapping in ref. [24]
>Rx Timing Deviation Value				3.84Mcps TDD Only
>>Rx Timing Deviation	M		INTEGER(08191)	According to mapping in [24]
>Round Trip Time				FDD Only
>>Round Trip Time	M		INTEGER(032767)	According to mapping in [23]
>Rx Timing Deviation Value LCR				1.28Mcps TDD Only
>>Rx Timing Deviation LCR	М		INTEGER(0255)	According to mapping in [24]
> Angle of Arrival Value LCR				1.28Mcps TDD only
>> AOA LCR	М		INTEGER(0719)	According to mapping in [24]
>> AOA LCR Accuracy Class	M		ENUMERAT ED(A, B, C, D, E, F, G, H,)	According to mapping in [24]

9.2.1.19A Dedicated Measurement Value Information

The *Dedicated Measurement Value Information* IE provides information both on whether or not the Dedicated Measurement Value is provided in the message and if provided also the Dedicated Measurement Value itself.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
CHOICE Measurement Availability Indicator	М				_	
>Measurement Available					_	
>>Dedicated Measurement Value	М		9.2.1.19		_	
>>CFN	0		9.2.1.9	Dedicated Measuremen t Time Reference	_	
>Measurement not Available			NULL		_	

9.2.1.19Aa Delayed Activation

The *Delayed Activation* IE indicates that the activation of the DL power shall be delayed until an indicated CFN or until a separate activation indication is received.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Delayed Activation	M			
> CFN				
>> Activation CFN	M		CFN 9.2.1.7	
> Separate Indication			NULL	

9.2.1.19Ab Delayed Activation Update

The Delayed Activation Update IE indicates a change of the activation of the DL power for a specific RL.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Delayed Activation	M			
Update				
> Activate				
>> CHOICE Activation Type				
>>> Synchronised				
>>>> Activation CFN	M		CFN 9.2.1.7	
>>> Unsynchronised			NULL	
>> Initial DL TX Power	M		DL Power	
			9.2.1.21	
>> First RLS Indicator	0		9.2.2.16A	FDD Only
>> Propagation Delay	0		9.2.2.35	FDD Only
> Deactivate				
>> CHOICE Deactivation type				
>>> Synchronised				
>>>> Deactivation CFN	M		CFN 9.2.1.7	
>>> Unsynchronised			NULL	

9.2.1.19B DGPS Corrections

The DGPS Corrections IE contains DGPS information used by the UE Positioning A-GPS method. For further details on the meaning of parameters, see [31].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
GPS TOW	М		INTEGER(0604799)	Time in seconds. This field indicates the baseline time for which the corrections are valid
Status/Health	M		ENUMERAT ED (UDRE scale 1.0, UDRE scale 0.75, UDRE scale 0.5, UDRE scale 0.3, UDRE scale 0.1, no data, invalid data)	This field indicates the status of the differential corrections
Satellite DGPS Corrections Information		1 <maxnosat></maxnosat>		
>SatID	М		SAT ID 9.2.1.50A	Satellite ID
>IODE	M		Bit string(8)	This IE is the sequence number for the ephemeris for the particular satellite. It can be used to determine if new ephemeris is used for calculating the corrections that are provided. This eightbit IE is incremented for each new set of ephemeris for the satellite and may occupy the numerical range of [0, 239] during normal operations.
>UDRE	M		ENUMERAT ED (UDRE ≤1.0m, 1.0m < UDRE ≤ 4.0m, 4.0m < UDRE ≤ 8.0m, 8.0m < UDRE)	User Differential Range Error. This field provides an estimate of the uncertainty (1- o) in the corrections for the particular satellite. The value in this field shall be multiplied by the UDRE Scale Factor in the common Corrections Status/Health field to determine the final UDRE estimate for the particular satellite
>PRC	М		Integer(-20472047)	Scaling factor 0.32 meters
>Range Correction Rate	M		Integer(- 127 127)	Scaling factor 0.032 m/s

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

9.2.1.20 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)	

9.2.1.21 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)	

9.2.1.21A DL Power

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

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

9.2.1.22 Downlink SIR Target

Void

9.2.1.23 DPCH Constant Value

DPCH Constant Value is the power margin used by a UE to set the proper uplink power.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DPCH Constant Value			INTEGER	Unit dB
			(-1010)	Granularity 1 dB.

9.2.1.24 D-RNTI

The D-RNTI identifies the UE Context in the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
D-RNTI			INTEGER	
			$(02^20 - 1)$	

9.2.1.25 D-RNTI Release Indication

The D-RNTI Release Indication indicates whether or not a DRNC shall release the D-RNTI allocated for a particular UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
D-RNTI Release Indication			ENUMERAT ED (Release D-RNTI, not Release	
			D-RNTI)	

9.2.1.26 DRX Cycle Length Coefficient

The DRX Cycle Length Coefficient is used as input for the formula to establish the paging occasions to be used in DRX.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DRX Cycle Length			INTEGER	Refers to 'k' in the formula as
Coefficient			(3,, 9)	specified in ref. [15],
				Discontinuous Reception.

9.2.1.26A DSCH ID

The DSCH ID is the identifier of an active downlink shared channel. It is unique for each active DSCH among the active DSCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DSCH ID			INTEGER	
			(0255)	

9.2.1.26B DSCH Flow Control Information

The *DSCH Flow Control Information* IE provides flow control information for each scheduling priority class for the DSCH FP over Iur.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
DSCH Flow Control Information		116			-	
>DSCH Scheduling Priority	M		Scheduling Priority Indicator 9.2.1.51A		_	
>MAC-c/sh SDU Length		1 <maxnb MAC- c/shSDUL ength></maxnb 			_	
>>MAC-c/sh SDU Length	M	_	9.2.1.34		_	

Range bound	Explanation
MaxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths.

9.2.1.26C FACH Flow Control Information

The FACH Flow Control Information IE provides flow control information for each scheduling priority class for the FACH FP over Iur.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
FACH Flow Control Information		116			_	
>FACH Scheduling Priority	M		Scheduling Priority Indicator 9.2.1.51A		-	
>MAC-c/sh SDU Length		1 <maxnb MAC- c/shSDUL ength></maxnb 			_	
>>MAC-c/sh SDU Length	М		9.2.1.34		_	
>FACH Initial Window Size	М		9.2.1.27		_	

Range bound	Explanation
MaxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths.

9.2.1.27 FACH Initial Window Size

Indicates the initial number of MAC-c/sh SDUs that may be transmitted before an acknowledgement is received from the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
FACH Initial Window Size			INTEGER (0255)	Number of frames (MAC-c/sh SDUs.) 255 = Unlimited number of FACH data frames.

9.2.1.28 FACH Priority Indicator

Void

9.2.1.28A FN reporting indicator

Frame Number reporting indicator.

Indicates if the SFN or CFN shall be included together with the reported measurement value.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
FN reporting indicator			ENUMERAT	
			ED(FN	
			reporting	
			required, FN	
			reporting not	
			required)	

9.2.1.29 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=Lowest Priority,
			(015)	
				15=Highest Priority

9.2.1.30 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 (0255)	Frames

9.2.1.30A GA Point with Uncertainty

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Geographical Coordinates	M		9.2.1.30F	
Uncertainty Code	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by $r = 10x(1.1^k-1)$

9.2.1.30B GA Ellipsoid Point with Uncertainty Ellipse

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Geographical Coordinates	M		9.2.1.30F	
Uncertainty Ellipse	М		9.2.1.68A	
Confidence	М		INTEGER(
			0127)	

9.2.1.30C GA Ellipsoid Point with Altitude

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	М		9.2.1.2B	

9.2.1.30D GA Ellipsoid Point with Altitude and Uncertainty Ellipsoid

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	M		9.2.1.2B	
Uncertainty Ellipse	M		9.2.1.68A	
Uncertainty Altitude	M		INTEGER(
			0127)	
Confidence	M		INTEGER(
			0127)	

9.2.1.30E GA Ellipsoid Arc

This IE contains one of the possible descriptions of a Cell Geographical Area.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Geographical Coordinates	M		9.2.1.30F	
Inner radius	М		INTEGER (02 ¹⁶ -1)	The relation between the value (N) and the radius (r) in meters it describes is 5N≤ r <5(N+1), except for N=2 ¹⁶ -1 for which the range is extended to include all grater values of (r).
Uncertainty radius	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 ^k -1)
Offset angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1)
Included angle	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1)
Confidence	М		INTEGER(0127)	

9.2.1.30F Geographical Coordinates

This IE contains the description of geographical coordinates.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Latitude Sign	M		ENUMERAT ED (North, South)	
Degrees Of Latitude	М		INTEGER (02 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°)
Degrees Of Longitude	М		INTEGER (-2 ²³ 2 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°)

9.2.1.30G GPS Almanac

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

IE/Group name	Presence	Range	IE Type and Reference	Semantics description
WNa	M		Bit string(8)	
Satellite Almanac Information	М	1,, <maxno Sat></maxno 		
>DataID	М		INTEGER (03)	
>SatID	М		SAT ID 9.2.1.50A	Satellite ID
>e	М		Bit string(16)	
>t _{oa}	М		Bit string(8)	
>δl	М		Bit string(16)	
>OMEGADOT	M		Bit string(16)	
>SV Health	М		Bit string(8)	
>A ^{1/2}	М		Bit string(24)	
>OMEGA ₀	M		Bit string(24)	
>M ₀	М		Bit string(24)	
>ω	М		Bit string(24)	
>af ₀	М		Bit string(11)	
>af ₁	М		Bit string(11)	
SV Global Health	0		Bit string(364)	

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

9.2.1.30H GPS Ionospheric Model

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

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
α ₀	M		Bit string(8)	
α ₁	M		Bit string(8)	
α_2	M		Bit string(8)	
α ₃	M		Bit string(8)	
β_0	M		Bit string(8)	
β_1	M		Bit string(8)	
β_2	M		Bit string(8)	
β3	M		Bit string(8)	

9.2.1.30I GPS Navigation Model and Time Recovery

This IE contains subframes 1 to 3 of the GPS navigation message. For further details on the meaning of parameters, see [30].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Navigation Message 1to3		1 <maxnosat></maxnosat>	11010101100	
>Transmission TOW	М		ENUMERAT	Time of the Week when the
			ED	message is broadcast.
			(01048575)	-
>SatID	M		SAT ID	Satellite ID of the satellite
			9.2.1.50A	from which the information is obtained
>TLM Message	M		Bit string(14)	
>Tlm Revd (C)	M		Bit string(2)	
>HO-Word	M		Bit string(22)	
>WN	M		Bit string(10)	
>C/A or P on L2	M		Bit string(2)	
>User Range Accuracy	M		Bit string(4)	
Index				
>SV Health	M		Bit string(6)	
>IODC	M		Bit string(10)	
>L2 P Data Flag	M		Bit string(1)	
>SF 1 Reserved	M		Bit string(87)	
>T _{GD}	M		Bit string(8)	
>t _{oc}	M		Bit string(16)	
>af ₂	M		Bit string(8)	
>af ₁	M		Bit string(16)	
>af ₀	M		Bit string(22)	
>C _{rs}	M		Bit string(16)	
>∆n	M		Bit string(16)	
>M ₀	M		Bit string(32)	
>C _{uc}	M		Bit string(16)	
>e	M		Bit string(32)	
>C _{us}	M		Bit string(16)	
>(A) ^{1/2}	M		Bit string(32)	
>t _{oe}	M		Bit string(16)	
>Fit Interval Flag	M		Bit string(1)	
>AODO	M		Bit string(5)	
>C _{ic}	M		Bit string(16)	
>OMEGA ₀	M		Bit string(32)	
>C _{is}	М		Bit string(16)	
>i ₀	M		Bit string(32)	
>C _{rc}	M		Bit string(16)	
>ω	M		Bit string(32)	
>OMEGAdot	M		Bit string(24)	
>ldot	M		Bit string(14)	
>Spare/zero fill	M		Bit string(20)	

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

9.2.1.30J GPS Real-Time Integrity

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

IE/Group name	Presence	Range	IE Type and	Semantics description
			Reference	
CHOICE Bad Satellites Presence	M			
>Bad Satellites				
>>Satellite information		1 <maxn oSat></maxn 		
>>>BadSatID	М		SAT ID 9.2.1.50A	Satellite ID
>No Bad Satellites			NULL	

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

9.2.1.30K GPS Receiver Geographical Position (GPS RX Pos)

The GPS Receiver Geographical Position is used to identify the geographical coordinates of a GPS receiver relevant for a certain Information Exchange Object.

_		

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	M		9.2.1.2B	

9.2.1.30L GPS UTC Model

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

IE/Group name	Presence	Range	IE Type and	Semantics description
			Reference	
A ₁	M		Bit string(24)	
A_0	M		Bit string(32)	
t _{ot}	M		Bit string(8)	
Δt_{LS}	M		Bit string(8)	
WN_t	M		Bit string(8)	
WN _{LSF}	M		Bit string(8)	
DN	M		Bit string(8)	
Δt_{LSF}	M		Bit string(8)	

9.2.1.30M Guaranteed Rate Information

The *Guaranteed Rate Information* IE indicates the TFI corresponding to the guaranteed bit rate for the uplink and/or the downlink of a DCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Guaranteed UL Rate	0		INTEGER(0maxTFcount)	
Guaranteed DL Rate	0		INTEGER(0maxTFcount)	

9.2.1.30N HCS Prio

The HCS Prio is the characteristics of the cell as defined in [15].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HCS Prio			INTEGER (07)	0=Lowest Priority,
			(07)	7=Highest Priority

9.2.1.300 HS-DSCH MAC-d Flow ID

HS-DSCH MAC-d Flow ID is the unique identifier for one MAC-d flow.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-DSCH MAC-d Flow ID			INTEGER (07)	

9.2.1.30P HS-DSCH-RNTI

The HS-DSCH-RNTI is needed for the UE-specific CRC in HS-SCCH and HS-DSCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
HS-DSCH-RNTI			INTEGER (065535)	

9.2.1.30Q HS-DSCH Information To Modify

The HS-DSCH Information To Modify IE provides information for HS-DSCH to be modified.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		0 <maxno ofMACdFl ows></maxno 			_	
>HS-DSCH MAC-d Flow ID	M		9.2.1.300		_	
>BLER	0		9.2.1.4		_	
>Allocation/Retention Priority	0		9.2.1.1A		_	
>Priority Queue Information		0 <maxno ofPrioQue ues></maxno 			_	
>>Priority Queue ID	M		9.2.1.45A		_	
>>Scheduling Priority Indicator	0		9.2.1.51A		_	
>>MAC-d PDU Size Index		0 <maxno ofMACdP DUindexes ></maxno 			-	
>>>SID	M		9.2.1.52D		_	
>>>MAC-d PDU Size	0		9.2.1.34A		_	
>Transport Bearer Request Indicator	М		9.2.1.62A		_	
Measurement Reporting Cycle	0		ENUMERA TED(k1,k2)	For FDD only	_	

Range bound	Explanation
MaxnoofMACdFlows	Maximum number of MAC-d flows.
MaxnoofPrioQueues	Maximum number of Priority Queues.
MaxnoofMACdPDUindexes	Maximum number of MAC-d PDU Size Indexes
	(SIDs).

9.2.1.31 IMSI

The IMSI is the permanent UE user Identity, see ref. [1].

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
IMSI			OCTET	-Decimal digits coded in
			STRING	BCD
			(SIZE(38))	-'1111' used as filler
				-bit 4 to 1 of octet n is
				encoding digit 2n-1
				-bit 8 to 5 of octet n is
				encoding digit 2n

9.2.1.31A Information Exchange ID

The Information Exchange ID uniquely identifies any requested information per RNS.

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

9.2.1.31B Information Exchange Object Type

The Information Exchange Object type indicates the type of object that the requested information shall be valid for.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Information Exchange Object			ENUMERAT	
Type			ED(CELL,	
)	

9.2.1.31C Information Report Characteristics

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

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Information Report Characteristics Type				
>OnDemand			NULL	
>Periodic				
>>Information Report Periodicity	M		ENUMERAT ED (1min1hr,) step 1min, (1hr24hr,) step 1hr,	The frequency with which the RNS shall send information reports.
>On Modification				
>>Information Threshold	0		9.2.1.31D	

9.2.1.31D Information Threshold

The Information Threshold indicates which kind of information shall trigger the Information Reporting procedure.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Information Type Item	М			
>DGPS				
>>PRC Deviation	M		ENUMERAT ED (1, 2, 5, 10,)	PRC deviation in meters from the previously reported value, which shall trigger a report
>Cell Capacity Class				
>>Cell Capacity Class	M		INTEGER(1100,)	1 is the minimum indicated cell capacity class, and 100 is the maximum indicated cell capacity class.

9.2.1.31E Information Type

The Information Type indicates which kind of information the RNS shall provide.

IE/Group Name	Presence	Range	IE Type and	Semantics Description
			Reference	
Information Type Item	М		ENUMERAT	
			ED	
			(UTRAN	
			Access Point	
			Position with	
			Altitude,	
			IPDL	
			Parameters,	
			GPS	
			Information,	
			DGPS	
			Corrections,	
			GPS RX	
			Pos, SFN-	
			SFN	
			Measureme	
			nt Reference	
			Point	
			Position,,	
			Cell	
			Capacity	
			Class)	
GPS Information	C-GPS	1 <maxnoofgpstype< td=""><td>Ciacoy</td><td></td></maxnoofgpstype<>	Ciacoy	
00011		\$>	ENU INVERNAT	
>GPS Information Item			ENUMERAT	
			ED	
			(GPS	
			Navigation	
			Model and	
			Time	
			Recovery,	
			GPS	
			Ionospheric	
			Model,	
			GPS UTC	
			Model,	
			GPS	
			Almanac,	
			GPS Real-	
			Time	
			Integrity,	
)	

Condition	Explanation		
GPS	This IE shall be present if the Information Type IE indicates		
	'GPS Information'		

Range Bound	Explanation
MaxnoofGPSTypes	Maximum number of GPS Information Types supported in one
	Information Exchange.

9.2.1.31F IPDL parameters

Information Element/Group	Presence	Range	IE Type and	Semantics description
name			Reference	
CHOICE IPDL Parameters				
>IPDL FDD Parameters				
>>IPDL FDD parameters	M		9.2.2.21B	
>IPDL TDD Parameters				For 3.84Mcps TDD only
>>IPDL TDD parameters	M		9.2.3.4B	
>IPDL TDD Parameters LCR				For 1.28Mcps TDD only
>>IPDL TDD parameters LCR	M		9.2.3.4Bb	

9.2.1.32 L3 Information

This parameter contains the Layer 3 Information from a Uu message as received from the UE over the Uu interface or the Layer 3 Information for a Uu message to be sent to a UE by the DRNC, as defined in ref. [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
L3 Information			BIT STRING	The content is defined in ref. [16]

9.2.1.33 Limited Power Increase

Void.

9.2.1.33A Load Value

The *Load Value* IE contains the total load on the measured object relative to the maximum planned load for both the uplink and downlink. It is defined as the load percentage of the Cell Capacity Class.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink Load Value	M		INTEGER(0100)	Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale.
Downlink Load Value	M		INTEGER(0100)	Value 0 shall indicate the minimum load, and 100 shall indicate the maximum load. Load should be measured on a linear scale.

9.2.1.34 MAC-c/sh SDU Length

Indicates the MAC-c/sh SDU Length. Which is used for FACH, DSCH and USCH. There may be multiple MAC-c/sh SDU Lengths per priority class.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-c/sh SDU Length			INTEGER (15000)	Size of the MAC-c/sh SDU in number of bits.

9.2.1.34A MAC-d PDU Size

The MAC-d PDU Size IE provides the size in bits of the MAC-d PDU.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
MAC-d PDU Size			INTEGER	
			(15000,)	

9.2.1.35 Maximum Allowed UL Tx Power

Maximum Allowed UL Tx Power is the maximum power that a UE in a particular cell is allowed to transmit.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Maximum Allowed UL Tx			INTEGER (-	dBm
Power			50+33)	

9.2.1.35A Measurement Availability Indicator

Void

9.2.1.36 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			ENUMERAT	
Coefficient			ED(0, 1, 2,	
			3, 4, 5, 6, 7,	
			8, 9, 11, 13,	
			15, 17,	
			19,)	

9.2.1.37 Measurement ID

The Measurement Id uniquely identifies a dedicated measurement within a UE Context or a common measurement within a Distant RNC Context.

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

9.2.1.38 Measurement Increase/Decrease Threshold

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

IE/ Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Measurement Increase/Decrease Threshold				
>SIR				
>>SIR	M		INTEGER(062)	0: 0 dB 1: 0.5 dB 2: 1 dB
O/D F				62: 31dB
>SIR Error				FDD Only
>>SIR Error	M		INTEGER(0124)	0: 0 dB 1: 0.5 dB 2: 1 dB 124: 62 dB
>Transmitted Code Power				121.02 05
>>Transmitted Code Power	М		INTEGER(0112,)	0: 0 dB 1: 0.5 dB 2: 1 dB
				112: 56 dB
>RSCP				TDD Only
>>RSCP	M		INTEGER(0126)	0: 0 dB 1: 0.5 dB 2: 1 dB
D /T: T:				126: 63 dB
>Round Trip Time			INITE OF DIO	FDD Only
>>Round Trip Time	M		INTEGER(032766)	0: 0 chips 1: 0.0625 chips 2: 0.1250 chips 32766: 2047.875 chips
>Load				
>>Load	М		INTEGER(0100)	Units are the same as for the Uplink Load Value IE and Dowlink Load Value IE.
>Transmitted Carrier Power				
>>Transmitted Carrier Power	М		INTEGER(0100)	According to mapping in [23] and [24].
>Received Total Wide Band Power				
>>Received Total Wide Band Power	M		INTEGER(0620)	0: 0dB 1: 0.1dB 2: 0.2dB 620: 62dB
>UL Timeslot ISCP				TDD Only
>>UL Timeslot ISCP	C- Threshold		INTEGER(0126)	0: 0dB 1: 0.5dB 2: 1dB 126: 63dB
>RT Load				120.0000
>>RT Load	M		INTEGER(0100)	Units are the same as for the Uplink RT Load Value IE and Downlink RT Load Value IE.
> NRT Load Information				
>>NRT Load Information	М		INTEGER(03)	

9.2.1.39 Measurement Threshold

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

IE/ Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Measurement				
Threshold				
>SIR				
>>SIR	M		INTEGER(0. .63)	According to mapping in ref. [23] and [24].
>SIR Error			.00)	FDD Only
>>SIR Error	М		INTEGER(0125)	According to mapping in [23]
>Transmitted Carrier Power			0	
>>Transmitted Code Power	М		INTEGER(0127)	According to mapping in ref. [23] and [24].
>RSCP			,	TDD Only
>>RSCP	М		INTEGER(0127)	According to mapping in ref. [24]
>Rx Timing Deviation				TDD Only
>>Rx Timing Deviation	М		INTEGER(0. .8191)	According to mapping in [24]
>Round Trip Time				FDD Only
>>Round Trip Time	М		INTEGER(0. .32767)	According to mapping in [23]
> T _{UTRAN-GPS} Measurement Threshold Information				
>>T _{UTRAN-GPS} Measurement Threshold Information > SFN-SFN Measurement	M		9.2.1.59C	
Threshold Information				
>>SFN-SFN Measurement Threshold Information	М		9.2.1.52B	
>Load				
>>Load	М		INTEGER(0100)	0 is the minimum indicated load, and 100 is the maximum indicated load.
>Transmitted Carrier Power				
>>Transmitted Carrier Power	М		INTEGER(0. .100)	According to mapping in [23] and [24].
>Received Total Wide Band Power				
>>Received Total Wide Band Power	М		INTEGER(0621)	According to mapping in [23] and [24].
>UL Timeslot ISCP				TDD Only
>>UL Timeslot ISCP	М		INTEGER(0127)	According to mapping in [24]
>RT Load				
>>RT Load	М		INTEGER(0. .100)	
>NRT Load Information			,	
>>NRT Load Information	М		INTEGER(03)	

9.2.1.39A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierarchical message structure from top level down to the lowest level above the reported level for the occured error (reported in the *Information Element Criticality Diagnostics* IE).

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message structure		1 to <maxnoofle vels></maxnoofle 		The first repetition of the Message Structure IE corresponds to the top level of the message. The last repetition of the Message Structure IE corresponds to the level above the reported level for the occured error of the message.	GLOBAL	ignore
>IE ID	M		INTEGER (065535)	The IE ID of this level's IE containing the not understood or missing IE.	-	
>Repetition Number	0		INTEGER (1256)	The Repetition Number IE gives, if applicable, the number of occurrences of this level's reported IE up to and including the occurrence containing the not understood or missing IE. Note: All the counted occurrences of the reported IE must have the same topdown hierachical message structure of IEs with assigned criticality above them.	_	

Range bound	Explanation
maxnooflevels	Maximum no. of message levels to report. The value for
	maxnooflevels is 256.

9.2.1.40 Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE type and reference	Semantics
				description
Dragadura ID		4		
Procedure ID	1.4	1	ENLINEDATED (DL Catara	
>Procedure Code	M		ENUMERATED (RL Setup, RL Addition, RL Deletion, Synchronised RL Reconfiguration Preparation, Synchronised RL Reconfiguration Commit, Synchronised RL Reconfiguration Cancel, Unsynchronised RL Reconfiguration Request, RL Failure, RL Pre-emption, RL Restoration, DL Power Control, DL Power Timeslot Control, Physical Channel Reconfiguration, UL Signalling Transfer, DL Signalling Transfer, Relocation Commit, Paging, Dedicated Measurement Initiation, Dedicated Measurement Reporting, Dedicated Measurement Failure, Common Transport Channel Resources Initiation, Common Transport Channel Resources Release,	
			Compressed Mode Command, Error Indication,,	
			Common Measurement Initiation, Common Measurement Reporting, Common Measurement Termination, Common Measurement Failure, Information Exchange Initiation, Information Reporting, Information Exchange Termination, Information Exchange Failure, Reset)	
>Ddmode	М		ENUMERATED (FDD, TDD, Common,)	Common = common to FDD and TDD.
Type of Message	M		ENUMERATED (Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.2.1.41 Multiple URAs Indicator

The Multiple URAs Indicator indicates whether the accessed cell has multiple URAs.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Multiple URAs Indicator			ENUMERAT	
			ED (Multiple	
			URA s exist,	
			Single URA	
			Exists)	

9.2.1.41A Neighbouring UMTS Cell Information

The *Neighbouring UMTS Cell Information* IE provides information for UMTS Cells that are neighbouring cells to a cell in the DRNC. The neighbouring cell information is provided for each RNC (including the DRNC) that has cells that are neighbouring cells to the cell in the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Neighbouring UMTS Cell Information		1 <maxnoof neighbourin gRNCs></maxnoof 			EACH	ignore
>RNC-ld	M		9.2.1.50		_	
>CN PS Domain Identifier	0		9.2.1.12		_	
>CN CS Domain Identifier	0		9.2.1.11		_	
>Neighbouring FDD Cell Information	0		9.2.1.41B		_	
>Neighbouring TDD Cell Information	0		9.2.1.41D		_	
>Neighbouring TDD Cell Information LCR	0		9.2.1.72		YES	reject

Range bound	Explanation
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs.

9.2.1.41B Neighbouring FDD Cell Information

The *Neighbouring FDD Cell Information* IE provides information for FDD cells that are a neighbouring cells to a cell in the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Neighbouring FDD Cell Information		1 <max noofFDD neighbou rs></max 			-	
>C-ld	M		9.2.1.6		_	
>UL UARFCN	M		UARFCN 9.2.1.66	Corresponds to Nu in ref. [6]	_	
>DL UARFCN	M		UARFCN 9.2.1.66	Corresponds to Nd in ref. [6]	_	
>Frame Offset	0		9.2.1.30		_	
>Primary Scrambling Code	M		9.2.1.45		_	
>Primary CPICH Power	0		9.2.1.44		_	
>Cell Individual Offset	0		9.2.1.7		_	
>Tx Diversity Indicator	M		9.2.2.50			
>STTD Support Indicator	0		9.2.2.45		_	
>Closed Loop Mode1 Support Indicator	0		9.2.2.2		1	
>Closed Loop Mode2 Support Indicator	0		9.2.2.3		_	
>Restriction State Indicator	0		9.2.1.48C		YES	ignore
>DPC Mode Change Support Indicator	0		9.2.2.56		YES	ignore
>Coverage Indicator	0		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	0		9.2.1.xx		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
>Cell Capability Container FDD	0		9.2.2.D		YES	ignore

Range bound	Explanation
MaxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell.

9.2.1.41C Neighbouring GSM Cell Information

The *Neighbouring GSM Cell Information* IE provides information for one GSM Cell that is a neighbouring cell to a cell in the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Neighbouring GSM Cell Information		1 <maxno ofGSMnei ghbours></maxno 			GLOBAL	ignore
>CGI		1		Cell Global Identity as defined in ref. [1].	_	
>>LAI		1			_	
>>>PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or	_	
				-3 digits from MNC (in case of a 3 digit MNC).		
>>>LAC	M		OCTET STRING (2)	0000 and FFFE not allowed	_	
>>Cl	M		OCTET STRING (2)		_	
>Cell Individual Offset	0		9.2.1.7	The Cell Individual Offset to be used for UEs using DCHs.	_	
>BSIC		1		Base Station Identity Code as defined in ref. [1].	_	
>>NCC	M		BIT STRING(3)	Network Colour Code.	_	
>>BCC	M		BIT STRING(3)	Base Station Colour Code.		
>Band Indicator	М		ENUMERA TED (DCS 1800 band, PCS 1900 band,)	Indicates whether or not the BCCH ARFCN belongs to the 1800 band or 1900 band of GSM frequencies.	_	
>BCCH ARFCN	M		INTEGER (01023)	BCCH Frequency as defined in ref. [29].	_	
>Coverage Indicator	0		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	0		9.2.1.xx		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore

Range bound	Explanation
MaxnoofGSMneighbours	Maximum number of neighbouring GSM cells for one cell.

9.2.1.41D Neighbouring TDD Cell Information

The *Neighbouring TDD Cell Information* IE provides information for 3.84Mcps TDD cells that are a neighbouring cells to a cell in the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Neighbouring TDD Cell Information		1 <maxnoo fTDDneighb ours></maxnoo 			_	
>C-ld	М		9.2.1.6		_	
>UARFCN	М		9.2.1.66	Corresponds to Nt in ref. [7]	-	
>Frame Offset	0		9.2.1.30		_	
>Cell Parameter ID	M		9.2.1.8		_	
>Sync Case	М		9.2.1.54		_	
>Time Slot	C-Case1		9.2.1.56		_	
>SCH Time Slot	C-Case2		9.2.1.51		_	
>SCTD Indicator	M		9.2.1.78		_	
>Cell Individual Offset	0		9.2.1.7		_	
>DPCH Constant Value	0		9.2.1.23		_	
>PCCPCH Power	0		9.2.1.43		_	
>Restriction State Indicator	0		9.2.1.48C		YES	ignore
>Coverage Indicator	0		9.2.1.12G		YES	ignore
>Antenna Co-location Indicator	0		9.2.1.xx		YES	ignore
>HCS Prio	0		9.2.1.30N		YES	ignore
>Cell Capability Container TDD	0		9.2.3.1a		YES	ignore

Condition	Explanation
Case1	The IE shall be present if the Sync Case IE is set to "Case1".
Case2	The IE shall be present if the Sync Case IE is set to "Case2".

Range bound	Explanation
MaxnoofTDDneighbours	Maximum number of neighbouring 3.84Mcps TDD cell for one cell.

9.2.1.41Dd Neighbouring TDD Cell Measurement Information LCR

This IE provides information on the 1.28Mcps TDD neighbouring cells used for the purpose of Measurements. Since the measurement can be performed on every time slot and midamble shift, the *Time slot LCR* IE and *Midamble shift LCR* IE shall be included if available.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UTRAN Cell Identifier	M		9.2.1.71	
UARFCN	M		9.2.1.66	Corresponds to Nt [15]
Cell Parameter ID	M		9.2.1.8	
Time Slot LCR	0		9.2.3.12a	
Midamble shift LCR	0		9.2.3.4C	

9.2.1.41E Paging Cause

Cause for a CN originated page.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Paging Cause			ENUMERAT ED(Terminating Conversatio nal Call, Terminating Streaming Call, Terminating Interactive Call, Terminating Background Call, Terminating Low Priority Signalling, , Terminating High Priority Signalling, Terminating - cause unknown)	See in [16]

9.2.1.41F Paging Record Type

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Paging Record Type			ENUMERAT	See ref. [16]
			ED (IMSI	
			(GSM-MAP),	
			TMSI (GSM-	
			MAP), P-	
			TMSI (GSM-	
			MAP), IMSI	
			(DS-41),	
			TMSI (DS-	
			41))	

9.2.1.41G Neighbouring FDD Cell Measurement Information

This IE provides information on the FDD neighbouring cells used for the purpose of Measurements.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UTRAN Cell Identifier	M		9.2.1.71	
UARFCN	М		9.2.1.66	Corresponds to Nd [6]
Primary Scrambling Code	М		9.2.1.45	

9.2.1.41H Neighbouring TDD Cell Measurement Information

This IE provides information on the 3.84Mcps TDD neighbouring cells used for the purpose of Measurements.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
UTRAN Cell Identifier	M		9.2.1.71	
UARFCN	M		9.2.1.66	
Cell Parameter ID	M		9.2.1.8	
Time slot	0		9.2.1.56	
Midamble shift and burst type	0		9.2.3.4	

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9.2.1.411 NRT Load Information Value

The NRT Load Information IE indicates the load situation on the cell for the Non Real-Time traffic. Non Real Time traffic corresponds to the Interactive and Background traffic classes.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink NRT Load Information Value	M		INTEGER (03)	Mapping of the status: 0: low: The Uplink NRT load is low. 1: medium: The Uplink NRT load is medium. 2: high: Uplink NRT load is high. Probability to admit a new user is low. 3: overloaded: Uplink NRT overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow.
Downlink NRT Load Information Value	M		INTEGER (03)	Mapping of the status: 0: low: The Downlink NRT load is low. 1: medium: The Downlink NRT load is medium. 2: high: Downlink NRT load is high. Probability to admitt a new user is low. 3: overloaded: Downlink NRT overload. The probability to admit a new user is low, packets are discarded and the source is recommended to reduce the data flow.

9.2.1.42 Payload CRC Present Indicator

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

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

9.2.1.43 **PCCPCH** Power

Primary CCPCH power is the power that shall be used for reference power value in a TDD cell.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
PCCPCH Power			ENUMERAT	Unit dBm
			ED(-	Granularity 0.1 dB.
			1540,)	

9.2.1.44 Primary CPICH Power

Primary CPICH power is the power that is used for transmitting the Primary 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			ENUMERAT ED (-1050)	Unit dBm Granularity 0.1 dB.

9.2.1.45 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)	

9.2.1.45A Priority Queue ID

The Priority Queue ID IE provides the identity of the Priority Queue.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Priority Queue ID			INTEGER	
			(07)	

9.2.1.46 Puncture Limit

The maximum amount of puncturing for a transport channel in rate matching.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Puncture Limit			INTEGER (015)	0: 40% 1: 44 %
				 14: 96% 15: 100% (no puncturing)

9.2.1.46A 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			ENUMERAT	
			ED(selected,	
			non-	
			selected)	

9.2.1.47 RANAP Relocation Information

This parameter is transparent to the RNSAP. The parameter contains information for the Relocation procedure as defined in [2].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RANAP Relocation Information			BIT STRING	The contents is defined in ref. [2].

9.2.1.48 Report Characteristics

The Report Characteristics, defines how the reporting shall be performed.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
CHOICE Report Characteristics				
>OnDemand			NULL	
>Periodic			NOLL	
>>Report Periodicity	М		ENUMERAT ED (10ms1min,) step 10ms, (1min1hr,) step 1min,	The periodicity with which the DRNS shall send measurement reports.
>Event A				
>>Measurement Threshold	M		Measurement Threshold	The threshold for which the DRNS shall trigger a measurement report.
>>Measurement Hysteresis Time	0		ENUMERAT ED (10ms1min,) step 10ms,	
>Event B				
>>Measurement Threshold	M		Measurement Threshold	The threshold for which the DRNS shall trigger a measurement report.
>>Measurement Hysteresis Time	0		ENUMERAT ED (10ms1min,) step 10ms,	
>Event C				
>>Measurement Increase/Decrease Threshold	М		Measurement Increase/Decr ease Threshold	
>>Measurement Change Time	M		ENUMERAT ED (10ms1min,) step 10ms,	The time within which the measurement entity shall rise, in order to trigger a measurement report.
>Event D			,	
>>Measurement Increase/Decrease Threshold	М		Measurement Increase/Decr ease Threshold	
>>Measurement Change Time	M		ENUMERAT ED (10ms1min,) step 10ms,	The time within which the measurement entity shall fall, in order to trigger a measurement report.
>Event E				
>>Measurement Threshold 1	M		Measurement Threshold	
>>Measurement Threshold 2	0		Measurement Threshold	
>>Measurement Hysteresis Time	0		ENUMERAT ED (10ms1min,)	The hysteresis time in ms
>>Report Periodicity	0		step 10ms, ENUMERAT ED (10ms1min,) step 10ms, (1min1hr,	The periodicity with which the DRNS shall send measurement reports.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
) step 1min,	
>Event F				
>>Measurement	M		Measurement	
Threshold 1			Threshold	
>>Measurement	0		Measurement	
Threshold 2			Threshold	
>>Measurement	0		ENUMERAT	The hysteresis time in ms
Hysteresis Time			ED	
			(10ms1min,	
)	
			step 10ms,	
>>Report Periodicity	0		ENUMERAT	The periodicity with which
			ED	the DRNS shall send
			(10ms1min,	measurement reports.
) step	
			10ms,	
			(1min1hr,	
0 - M - 4/6 6) step 1min,	
>On Modification			N4	
>>Measurement			Measurement	
Threshold			Threshold	
			9.2.1.39	

9.2.1.48A Requested Data Value

The Requested Data Value contains the relevant data concerning the ongoing information exchange. *Requested Data Value* IE shall include at least one of the following IE.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
UTRAN Access Point Position with Altitude	0		9.2.1.75	
IPDL Parameters	0		9.2.1.31F	
DGPS Corrections	0		9.2.1.19B	
GPS Navigation Model and	0		9.2.1.301	
Time Recovery				
GPS Ionospheric Model	0		9.2.1.30H	
GPS UTC Model	0		9.2.1.30L	
GPS Almanac	0		9.2.1.30G	
GPS Real-Time Integrity	0		9.2.1.30J	
GPS RX Pos	0		9.2.1.30K	
SFN-SFN Measurement Reference Point Position	0		9.2.1.74	
Cell Capacity Class Value	0		9.2.1.5C	

9.2.1.48B Requested Data Value Information

The Requested Data Value Information IE provides information both on whether or not the Requested Data Value is provided in the message or not and if provided also the Requested Data Value itself.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Requested Data Value Information					_	
>CHOICE Information Availability Indicator	M				_	
>>Information Available					_	
>>>Requested Data Value	М		9.2.1.48A		_	
>>Information not Available			NULL		_	

9.2.1.48C Restriction State Indicator

The Restriction state indicator is the identifier indicates whether the cell is "Cell Reserved for Operator Use" or not. It is provided by DRNS and reported to SRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Restriction state indicator			Enumerated(
			Cell Not	
			Reserved for	
			Operator	
			Use, Cell	
			Reserved for	
			Operator	
			Use,)	

9.2.1.49 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	
			(031)	

9.2.1.49A RL Specific DCH Information

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
RL Specific DCH Information		1 <maxno ofDCHs></maxno 			_	
>DCH ID	М		9.2.1.16		_	
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	-	
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	-	

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for one UE.

9.2.1.50 RNC-ld

This is the identifier of one RNC in UTRAN.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RNC-Id			INTEGER	
			(04095)	

9.2.1.50A SAT ID

The SAT ID indicates the identity of the satellite.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
SAT ID			INTEGER(063)	

9.2.1.50B RT Load Value

The *RT Load Value* IE indicates the ratio of the load generated by Real Time traffic, relative to the measured Cell Load. Real Time traffic corresponds to the Conversational and Streaming traffic classes.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Uplink RT Load Value	M		INTEGER(0100)	Value 0 shall indicate the minimum RT load, and 100 shall indicate the maximum RT load. Load should be measured on a linear scale.
Downlink RT Load Value	M		INTEGER(0100)	Value 0 shall indicate the minimum RT load, and 100 shall indicate the maximum RT load. Load should be measured on a linear scale.

9.2.1.51 SCH Time Slot

The *SCH Time Slot* IE represents the first time slot (k) of a pair of time slots inside a Radio Frame that is assigned to the Physical Channel SCH. The *SCH Time Slot* IE is only applicable if the value of *Sync Case* IE is Case 2 since in this case the SCH is allocated in TS#k and TS#k+8.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SCH Time Slot			INTEGER(06)	

9.2.1.51A Scheduling Priority Indicator

Indicates the relative priority of the FACH, DSCH, or USCH data frame. Used by the DRNC when scheduling FACH, DSCH, or USCH traffic.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Scheduling Priority Indicator			INTEGER (015)	Relative priority of the FACH, DSCH, or USCH data frame: 0=Lowest Priority 15=Highest Priority

9.2.1.52 Service Area Identifier (SAI)

This information element is used to identify an area consisting of one or more cells belonging to the same Location Area. Such an area is called a Service Area and can be used for indicating the location of a UE to the CN. For this protocol, only a Service Area that is defined to be applicable to the PS and CS domains shall be used.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PLMN Identity	M		OCTET STRING (3)	- digits 0 to 9, two digits per octet, - each digit encoded 0000 to 1001, - 1111 used as filler - bit 4 to 1 of octet n encoding digit 2n-1 - bit 8 to 5 of octet n encoding digit 2n -The PLMN Identity consists of 3 digits from MCC followed by either -a filler plus 2 digits from MNC (in case of 2 digit MNC) or -3 digits from MNC (in case of a 3 digit MNC).
LAC	M		OCTET STRING (2)	0000 and FFFE not allowed
SAC	М		OCTET STRING (2)	

9.2.1.52A SFN

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SFN			Integer (04095)	

9.2.1.52B SFN-SFN Measurement Threshold Information

The SFN-SFN Measurement Threshold Information defines the related thresholds SFN-SFN Observed Time Difference measurements which shall trigger the Event On Modification.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SFN-SFN Change Limit	0		INTEGER(1256)	Change of SFN-SFN value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted SFN-SFN Deviation Limit	0		INTEGER(1256)	Deviation the Predicted SFN- SFN from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

9.2.1.52C SFN-SFN Measurement Value Information

The SFN-SFN Measurement Value Information IE indicates the measurement result related to SFN-SFN Observed Time Difference measurements as well as other related information.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information		1 <maxnoofmeasn Cell></maxnoofmeasn 		
>UTRAN Cell Identifier			9.2.1.71	
>SFN-SFN Value	М		9.2.1.77	
>SFN-SFN Quality	0		INTEGER(0255)	Indicates the standard deviation of the SFN-SFN otd (observed time difference) measurements in 1/16 chip.
>SFN-SFN Drift Rate	М		INTEGER(- 100100)	Indicates the SFN-SFN drift rate in 1/256 chip per second. A positive value indicates that the Reference cell clock is running at a greater frequency than the measured neighbouring cell.
>SFN-SFN Drift Rate Quality	М		INTEGER(0100)	Indicates the standard deviation of the SFN-SFN drift rate measurements in 1/256 chip per second.
>SFN-SFN Measurement Time Stamp	M		9.2.1.76	
Unsuccessful Neighbouring cell SFN- SFN Observed Time Difference Measurement Information		0 <maxnoofmeasn Cell-1></maxnoofmeasn 		
>UTRAN Cell Identifier			9.2.1.71	

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

9.2.1.52D SID

The SID IE provides the identity of the Size Index.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SID			INTEGER (07)	

9.2.1.53 S-RNTI

The S-RNTI identifies the UE in the SRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
S-RNTI			INTEGER(0.	
			.2^20 -1)	

9.2.1.54 Sync Case

The SCH and PCCPCH in a TDD cell are mapped on one or two downlink slots per frame. There are two cases of Sync Case 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

[1.28Mcps TDD - There is no Sync Case indication needed for 1.28Mcps TDD. If the *Sync Case* IE must be included in a message from DRNC to SRNC used for 1.28Mcps TDD, the DRNC shall indicate Sync Case 1 and the SRNC shall ignore it.]

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Sync Case			INTEGER	
			(12,)	

9.2.1.55 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 DPCH listed.

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

9.2.1.56 Time Slot

The Time Slot represents the time interval assigned to a Physical Channel referred to the start of a Radio Frame.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Time Slot			INTEGER (014)	

9.2.1.57 ToAWE

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
ToAWE			INTEGER (02559)	msec.

9.2.1.58 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 (01279)	msec.

9.2.1.58A Traffic Class

This IE indicates the type of application the Radio Bearer is optimised for.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
>Traffic Class			ENUMERATED (conversational, streaming, interactive, background,)	

9.2.1.59 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 procedures addressed to a specific UE context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures for the same UE using the same procedure code, and initiated by the same protocol peer.

For procedures not addressed to a specific UE context, the Transaction ID shall uniquely identify a procedure among all ongoing parallel procedures using the same procedure code, and initiated by the same protocol peer.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transaction ID			CHOICE INTEGER (0127) or INTEGER (032767)	The Transaction ID shall be interpreted for its integer value, not for the type of encoding ("short" or "long").

9.2.1.59A Transmitted Carrier Power

The Transmitted Carrier Power IE contains the Transmitted Carrier Power in a cell, as defined in [11] & [14].

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Transmitted Carrier Power			INTEGER(0.	According to mapping in [23]
			100)	and [24]

9.2.1.59B $T_{UTRAN\text{-}GPS}$ Accuracy Class

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
T _{UTRAN-GPS} Accuracy Class			ENUMERAT	More information about
·			ED(Accuracy	Measurement Accuracy Class is
			Class A,	included in [23].
			Accuracy	
			Class B,	
			Accuracy	
			Class C,)	

9.2.1.59C T_{UTRAN-GPS} Measurement Threshold Information

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
T _{UTRAN-GPS} Change Limit			INTEGER(1256)	Change of T _{UTRAN-GPS} value compared to previously reported value, which shall trigger a new report. Unit in 1/16 chip.
Predicted T _{UTRAN-GPS} Deviation Limit			INTEGER(1256)	Deviation of the Predicted T _{UTRAN-GPS} from the latest measurement result, which shall trigger a new report. Unit in 1/16 chip.

9.2.1.59D T_{UTRAN-GPS} Measurement Value Information

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
T _{UTRAN-GPS}		1		Indicates the UTRAN GPS Timing of Cell Frame for LCS. According to mapping in [23] and [24]; significant values range from 0 to 37158911999999.
>MS	М		INTEGER (016383)	Most Significant Part
>LS	М		INTEGER (04294967 295)	Least Significant Part
T _{UTRAN-GPS} Quality	М		INTEGER(0. .255)	Indicates the standard deviation of the T _{UTRAN-GPS} measurements in 1/16 chip.
T _{UTRAN-GPS} Drift Rate	M		INTEGER(- 5050)	Indicates the T _{UTRAN-GPS} drift rate in 1/256 chip per second. A positive value indicates that the UTRAN clock is running at a lower frequency than GPS clock.
Tutran-gps Drift Rate Quality	M		INTEGER(050)	Indicates the standard deviation of the T _{UTRAN-GPS} drift rate measurements in 1/256 chip per second.

9.2.1.60 Transport Bearer ID

The Transport Bearer ID uniquely identifies an Iur transport bearer.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transport Bearer ID			INTEGER (04095)	

9.2.1.61 Transport Bearer Request Indicator

Indicates whether a new Iur transport bearer needs to be established for carrying the corresponding data stream(s), or whether an existing transport bearer will be used.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transport Bearer Request			ENUMERAT	
Indicator			ED(Bearer	
			Requested,	
			Bearer not	
			Requested,	
)	

9.2.1.62 Transport Layer Address

In case of transport bearer establishment with ALCAP [3] [35], this IE contains the address to be used for Transport Network Control Plane signalling to establish the transport bearer according to [3] [35].

In order to allow transport bearer establishment without ALCAP, this IE contains the address of the transport bearer to be used for the user plane transport.

For details on the Transport Address used see [3].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transport Layer Address			BIT STRING(1 160,)	

9.2.1.63 Transport Format Combination Set (TFCS)

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	Semantics description
OUDIOE BOOK		_	reference	
>No Split in the TFCI				This choice is made if:
2NO Spile in the Trion				a) The TFCS refers to the
				uplink
				OR
				b) The mode is FDD and
				none of the Radio Links of the concerned UE are assigned
				any DSCH transport channels
				OR
				c) The mode is TDD
>>TFCS		1 to (TEO		The first instance of the
		<maxnooftfcs></maxnooftfcs>		parameter corresponds to TFCI zero, the second to 1
				and so on.
>>>CTFC	М		INTEGER(0.	Integer number calculated
			.MaxCTFC)	according to ref. [16].
>>>CHOICE Gain Factors	C- PhysChan			
>>>Signalled Gain	FilysCilan			
Factors				
>>>>Gain	М		INTEGER	[FDD - For UL DPCCH or
Factor β _C			(015)	control part of PRACH ref.
				[21].] [TDD - β for UL DPCH
				mapping in accordance to
				[13].]
>>>>Gain	М		INTEGER	[FDD - For UL DPDCH or
Factor β _D			(015)	data part of PRACH ref. [21].]
				[TDD - Should be set to 0 by the sender, and shall be
				ignored by the receiver.]
>>>> Reference	0		INTEGER	If this TFC is a reference
TFC nr			(015)	TFC, this IE indicates the
				reference number
>>>Computed Gain Factors				
>>>>Reference	М		INTEGER	Indicates the reference TFC
TFC nr			(015)	to be used to calculate the
There is a sufficiently				gain factors for this TFC
>There is a split in the TFCI				This choice is made if: a) The TFCS refers to the
11 01				downlink
				AND
				b) The mode is FDD and one
				of the Radio Links of the
				concerned UE is assigned one or more DSCH transport
				channels
>>Transport Format		1 to		The first instance of the
Combination_DCH		<maxtfci_1_co< td=""><td></td><td>Transport format</td></maxtfci_1_co<>		Transport format
		mbs>		combination_DCH IE corresponds to TFCI (field 1)
				= 0, the second to TFCI (field
				1) = 1 and so on.
>>>CTFC(field1)	М		INTEGER(0.	Integer number calculated
			.MaxCTFC)	according to [16] . The calculation of CTFC ignores
				any DSCH transport channels
				which may be assigned
>>Choice Signalling				
Method				
>>>TFCI Range >>>> TFC Mapping		1 to		
on DSCH		<maxnotfcigrou< td=""><td></td><td></td></maxnotfcigrou<>		
		ps>		

>>>>Max TFCI(field2) Value	М		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 [16] The calculation of CTFC ignores any DCH transport channels which may be assigned
>>>Explicit				
>>>>Transport Format Combination_DSC H		1 to <maxtfci_2_co mbs></maxtfci_2_co 		The first instance of the Transport format combination_DSCH IE corresponds to TFCI (field2) = 0, the second to TFCI (field 2) = 1 and so on.
>>>>CTFC(field 2)	М		INTEGER(0. .MaxCTFC)	Integer number calculated according to [16]. 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
	[FDD – or PRACH channel].

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: $\sum_{i=1}^{I} \left(L_i - 1\right) \! P_i$
	with the notation according to ref. [16].

9.2.1.64 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
Dynamic Transport Format Information		1 <maxtfcount></maxtfcount>		The first instance of the parameter corresponds to TFI zero, the second to 1 and so on.
>Number of Transport Blocks	М		INTEGER (0512)	
>Transport Block Size	C – Blocks		INTEGER (05000)	Bits
>CHOICE Mode	M			
>>TDD				
>>>Transmission Time Interval Information	C- TTldynamic	1 <maxttlcount></maxttlcount>		
>>>Transmission Time Interval	M		ENUMERAT ED(10, 20, 40, 80,)	msec
Semi-static Transport Format Information		1		
>Transmission Time Interval	M		ENUMERAT ED (10, 20, 40, 80, dynamic,)	msec Value "dynamic" for TDD only
>Type of Channel Coding	М		ENUMERAT ED (No codingTDD, Convolutiona I, Turbo,)	[FDD - The value 'No codingTDD' shall be treated as logical error if received]
>Coding Rate	C – Coding		ENUMERAT ED (1/2, 1/3,)	
>Rate Matching Attribute	М		INTEGER (1maxRM)	
>CRC size	М		ENUMERAT ED (0, 8, 12, 16, 24,)	
>CHOICE Mode	M			
>>TDD				
>>>2 nd Interleaving Mode	M		ENUMERAT ED(Frame related, Timeslot related,)	

Condition	Explanation
Blocks	The IE shall be present if the Number of Transport Blocks IE is set
	to a value greater than 0.
Coding	Th IE present if Transmission Time Interval IE is set to
	"Convolutional" or "Turbo".
TTIdynamic	The IE shall be present if the <i>Transmission Time Interval</i> IE in the
	Semi-static Transport Format Information IE is set to "dynamic".

Range bound	Explanation
MaxTFcount	The maximum number of different transport formats that can be
	included in the Transport format set for one transport channel.
MaxRM	The maximum number that could be set as rate matching attribute
	for a transport channel.
MaxTTlcount	The amount of different TTI that are possible for that transport
	format is.

9.2.1.65 TrCh Source Statistics Descriptor

Defines the statistics of the data transmitted in the transport channel. This information may be used in reserving resources in the DRNS.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
TrCh Source Statistics			ENUMERAT	'Speech' = Statistics of the
Descriptor			ED (Speech,	data corresponds to speech.
			RRC,	'RRC' = Statistics of the data
			Unknown,	corresponds to RRC
)	signalling
				'Unknown' = The statistics of
				the data is unknown

9.2.1.66 UARFCN

The UTRA Absolute Radio Frequency Channel Number defines the carrier.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UARFCN			INTEGER	Corresponds to: 0.0Hz
			(016383,	3276.6MHz
)	see ref. [6] and ref. [7].

9.2.1.67 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			ENUMERAT	
			ED(Normal,	
			Silent,)	

9.2.1.68 UL Interference Level

Void

9.2.1.68A Uncertainty Ellipse

This IE contains the uncertainty ellipse used to describe a possible shape of the geographical area of a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Uncertainty semi-major	M		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 ^k -1)
Uncertainty semi-minor	М		INTEGER(0127)	The uncertainty "r" is derived from the "uncertainty code" k by r = 10x(1.1 ^k -1)
Orientation of major axis	М		INTEGER(0179)	The relation between the value (N) and the angle (a) in degrees it describes is 2N≤ a <2(N+1)

9.2.1.69 Uplink SIR

The UL SIR indicates a received UL SIR.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Uplink SIR			ENUMERAT	Step 0.1 dB
			ED (-8.2	
			17.3)	

9.2.1.70 URA ID

IE/Group Name	Presence	Range	IE type and reference	Semantics description
URA ID			INTEGER	
			(065 535)	

9.2.1.70A UTRAN Access Point Position

The UTRAN Access Point Position indicates the exact geographical position of the base station antenna.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Latitude Sign	M		ENUMERAT ED (North, South)	
Degrees of Latitude	М		INTEGER (02 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²³ X /90 < N+1 X being the latitude in degree (0° 90°)
Degrees of Longitude	М		INTEGER (-2 ²³ 2 ²³ -1)	The IE value (N) is derived by this formula: N≤2 ²⁴ X /360 < N+1 X being the longitude in degree (-180°+180°)

9.2.1.70B URA Information

The URA Information IE contains URA Information for one cell.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
URA ID	M		9.2.1.70	
Multiple URAs Indicator	M		9.2.1.41	
RNCs with Cells in the Accessed URA		0 <maxrncinura- 1></maxrncinura- 		Other RNCs having at least one cell in the URA identified by the URA ID IE.
>RNC-Id	М		9.2.1.50	

Range Bound	Explanation
MaxRNCinURA	Maximum number of RNC in one URA.

9.2.1.71 UTRAN Cell Identifier (UC-Id)

The UC-Id (UTRAN Cell identifier) is the identifier of a cell in one UTRAN.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RNC-Id	M		9.2.1.50	
C-ld	M		9.2.1.6	

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9.2.1.72 Neighbouring TDD Cell Information LCR

The *Neighbouring TDD Cell Information LCR* IE provides information for 1.28Mcps TDD cells that are a neighbouring cells to a cell in the DRNC.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Neighbouring TDD Cell Information LCR		1 <maxno ofLCRTDD neighbour s></maxno 			-	
>C-Id	M		9.2.1.6		_	
>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	_	
>Frame Offset	0		9.2.1.30		_	
>Cell Parameter ID	M		9.2.1.8		_	
>SCTD Indicator	M		9.2.1.78		_	
>Cell Individual Offset	0		9.2.1.7		-	
>DPCH Constant Value	0		9.2.1.23		_	
>PCCPCH Power	0		9.2.1.43		_	
>Restriction State Indicator	0		9.2.1.48C		_	
>Cell Capability Container TDD LCR	0		9.2.3.1b		YES	ignore

Range bound	Explanation		
MaxnoofLCRTDDneighbours	Maximum number of neighbouring 1.28Mcps TDD cell for one cell.		

9.2.1.73 Permanent NAS UE Identity

This element is used to identify the UE in UTRAN.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Choice Permanent NAS UE				
Identity				
>IMSI				
>>IMSI	М		9.2.1.31	

9.2.1.74 SFN-SFN Measurement Reference Point Position

The SFN-SFN Measurement Reference Point Position indicates the exact geographical position of the SFN-SFN measurement reference point. The altitude shall be included when available.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Geographical Coordinates	M		9.2.1.30F	
Altitude and direction	0		9.2.1.2B	

9.2.1.75 UTRAN Access Point Position with Altitude

The UTRAN Access Point Position with Altitude indicates the exact geographical position of the base station antenna. The altitude shall be included when available.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Geographical Coordinates	М		9.2.1.30F	
Altitude and direction	0		9.2.1.2B	

9.2.1.76 SFN-SFN Measurement Time Stamp

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Mode				
>FDD				
>>SFN	M		9.2.1.52A	Indicates the SFN of the reference cell at which the measurement has been performed.
>TDD				
>>SFN	M		9.2.1.52A	Indicates the SFN of the reference cell at which the measurement has been performed.
>>Time Slot	M		9.2.1.56	Indicates the Time Slot of the reference cell at which this measurement has been performed.

9.2.1.77 SFN-SFN Value

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CHOICE Mode				
>FDD				
>>SFN-SFN	М		INTEGER(0. . 614399)	According to mapping in [23].
>TDD				
>>SFN-SFN	M		INTEGER(0. . 40961)	According to mapping in [24].

9.2.1.78 SCTD Indicator

Indicates if SCTD antenna diversity is applied or not to the PCCPCH and PICH [3.84Mcps TDD].

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

9.2.1.79 Congestion Cause

The Congestion Cause IE indicates the cause of a congestion situation:

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Congestion Cause			ENUMERATED (UTRAN Dynamic Resources, UTRAN Semistatic Resources,)	

The meaning of the different congestion cause values is described in the following table:

Congestion cause	Meaning
UTRAN Dynamic Resources	UL and/or DL DCH congestion situation mainly caused by the UL and/or DL UTRAN Dynamic Resources. This type of congestion situation is, e.g. related to the DL power situation or the UL Interference situation in the concerning cell(s).
UTRAN Semistatic Resources	UL and/or DL DCH congestion situation mainly related to UTRAN Semistatic Resources (e.g. channelisation codes, Node-B resources,).

9.2.2 FDD Specific Parameters

This subclause contains parameters that are specific to FDD.

9.2.2.A Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CM Configuration Change CFN	М		CFN 9.2.1.9	
Transmission Gap Pattern Sequence Status		0 to <maxtgps></maxtgps>		If the group is not present, none of the pattern sequences are activated.
>TGPSI Identifier	M		INTEGER(1. . <maxtgps >)</maxtgps 	Establish a reference to the compressed mode pattern sequence. Up to <maxaps> simultaneous compressed mode pattern sequences can be activated.</maxaps>
>TGPRC	М		INTEGER(0511)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence. 0=Infinity.
>TGCFN	M		CFN 9.2.1.9	Connection Frame Number of the first frame of the first pattern 1 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	Frames
			(1 256)	

9.2.2.C Adjustment Ratio

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

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

9.2.2.D Cell Capability Container FDD

The Cell Capability Container FDD indicates which functionalities a cell supports.

9.2.2.1 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	Chips
			(038399)	

9.2.2.2 Closed Loop Mode1 Support Indicator

The Closed Loop Mode1 Support Indicator indicates whether the particular cell is capable to support Closed loop mode1 or not

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Closed Loop Mode1 Support			ENUMERAT	
Indicator			ED (Closed	
			loop mode1	
			Supported,	
			Closed loop	
			mode1 not	
			supported).	

9.2.2.3 Closed Loop Mode2 Support Indicator

The Closed Loop Mode2 Support Indicator indicates whether the particular cell is capable to support Closed loop mode2 or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
01 11 11 10 0				
Closed Loop Mode2 Support			ENUMERAT	
Indicator			ED (Closed	
			loop mode2	
			Supported,	
			Closed loop	
			mode2 not	
			supported).	

9.2.2.3A 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.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Closed Loop Timing Adjustment			ENUMERAT	According to [10] subclause
Mode			ED (Offset1,	7.1:
			Offset2,)	Offset1 = slot(j+1)mod15
				Offset2 = slot(j+2)mod15

9.2.2.4 Compressed Mode Method

Void

9.2.2.4A DCH FDD Information

The DCH FDD Information IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
DCH FDD Information		1 <maxno ofDCHs></maxno 			_	
>Payload CRC Presence Indicator	М		9.2.1.42		_	
>UL FP Mode	M		9.2.1.67		_	
>ToAWS	M		9.2.1.58		_	
>ToAWE	M		9.2.1.57		_	
>DCH Specific Info		1 <maxno ofDCHs></maxno 			_	
>>DCH ID	M		9.2.1.16		_	
>>TrCh Source Statistics Descriptor	М		9.2.1.65		_	
>>Transport Format Set	М		9.2.1.64	For the UL.	_	
>>Transport Format Set	M		9.2.1.64	For the DL.	_	
>>BLER	M		9.2.1.4	For the UL.	_	
>>BLER	M		9.2.1.4	For the DL.	_	
>>Allocation/Retention Priority	М		9.2.1.1		_	
>>Frame Handling Priority	M		9.2.1.29		_	
>>QE-Selector	M		9.2.1.46A		_	
>>DRAC control	M		9.2.2.13		_	
>>Guaranteed Rate Information	0		9.2.1.30M		YES	ignore
>>Traffic Class	M		9.2.1.58A		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for one UE.

9.2.2.5 D-Field Length

Void

9.2.2.6 Diversity Control Field

Void.

9.2.2.7 Diversity Indication

Void.

9.2.2.8 Diversity Mode

Define the diversity mode to be applied.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Diversity Mode			ENUMERAT	
			ED(None,	
			STTD,	
			Closed loop	
			mode 1,	
			Closed loop	
			mode2,)	

9.2.2.9 DL DPCH Slot Format

Indicates the slot format used in DPCH in DL, according to ref. [8].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL DPCH Slot Format			INTEGER	
			(016,)	

9.2.2.9A DL DPCH Timing Adjustment

The DL DPCH Timing Adjustment indicates that a timing adjustment of the related radio link is required. It also indicates whether the timing adjustment shall consist of a timing advance or a timing delay with respect to the SFN timing. The adjustment always consists of 256 chips.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL DPCH Timing			ENUMERAT	The size of the timing
Adjustment			ED (timing	adjustment is 256 chips.
,			advance,	
			timing delay)	

9.2.2.10 DL Power

Void

9.2.2.10A DL Power Balancing Information

The *DL Power Balancing Information* IE provides information for power balancing to be activated in the relevant RL(s).

IE/Group Name	Presence	Range	IE type and	Semantics description	Criticality	Assigned Criticality
Davier Adivates ant Tura	NA.		reference			
Power Adjustment Type	M		9.2.2.28		_	
DL Reference Power	C-Common		DL power 9.2.1.21A	Power on DPCH	_	
DL Reference Power Information	C-Individual	1 <maxnoof RLs></maxnoof 			_	
>RL ID	M		9.2.1.49		_	
>DL Reference Power	M		DL power 9.2.1.21A	Power on DPCH	_	
Max Adjustment Step	C- CommonOrIn dividual		9.2.2.23		_	
Adjustment Period	C- CommonOrIn dividual		9.2.2.B		-	
Adjustment Ratio	C- CommonOrIn dividual		9.2.2.C		-	

Condition	Explanation
Common	The IE shall be present if the Power Adjustment Type IE is set to
	"Common".
Individual	The IE shall be present if the Power Adjustment Type IE is set to
	"Individual".
CommonOrIndividual	The IE shall be present if the Power Adjustment Type IE is set to
	"Common' or 'Individual".

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

9.2.2.10B DL Power Balancing Activation Indicator

The DL Power Balancing Activation Indicator IE indicates that the power balancing is activated in the RL.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL Power Balancing			ENUMERATED	
Activation Indicator			(DL Power	
			Balancing	
			Activated).	

9.2.2.10C DL Reference Power Information

The *DL Reference Power Information* IE provides reference power of the power balancing to be used in the relevant RL(s).

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Common DL Reference	0		DL power	Power on	_	
Power			9.2.1.21A	DPCH		
Individual DL Reference		0 <maxnoof< td=""><td></td><td></td><td>_</td><td></td></maxnoof<>			_	
Power Information		RLs>				
>RL ID	M		9.2.1.49		_	
>DL Reference Power	M		DL power	Power on	_	
			9.2.1.21A	DPCH		

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for a UE.

9.2.2.10D DL Power Balancing Updated Indicator

The *DL Power Balancing Updated Indicator* IE indicates that the power balancing related parameters is updated in the RL.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL Power Balancing			ENUMERATED	
Updated Indicator			(DL Power	
			Balancing	
			Updated).	

9.2.2.11 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 (015)	0= Primary scrambling code of the cell 115= Secondary scrambling code

9.2.2.12 Downlink Frame Type

Void

9.2.2.12A DPC Mode

The *DPC Mode* IE indicates the DPC mode to be applied [10].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DPC Mode			ENUMERAT TED (Mode0, Mode1,)	Mode0: The DRNS shall estimate the UE transmitted TPC command and update the DL power in every slot
				Mode1: The DRNS shall estimate the UE transmitted TPC command over three slots and shall update the DL power in every three slots

9.2.2.13 DRAC Control

This IE indicates whether the DCH is control by DRAC or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DRAC Control			ENUMERAT ED (Requested, Not- Requested)	Requested means that DCH is controlled by DRAC

9.2.2.13A DSCH FDD Information

The DSCH FDD Information IE provides information for DSCHs to be established.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
DSCH Specific FDD		1 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
Information	1	ofDSCHs>				
>DSCH ID	M		9.2.1.26A		_	
>TrCh Source Statistics Descriptor	M		9.2.1.65		_	
>Transport Format Set	М		9.2.1.64	For DSCH	_	
>Allocation/Retention Priority	М		9.2.1.1		_	
>Scheduling Priority Indicator	M		9.2.1.51A		_	
>BLER	M		9.2.1.4		_	
>Traffic Class	M		9.2.1.58A		YES	ignore
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
PDSCH RL ID	M		RL ID 9.2.1.49		_	
TFCS	M		9.2.1.63	For DSCH	_	
>Enhanced DSCH PC	0		9.2.2.13D		YES	ignore

Range bound	Explanation		
MaxnoofDSCHs	Maximum number of DSCHs for one UE.		

9.2.2.13B DSCH FDD Information Response

The DSCH FDD Information Response IE provides information for DSCHs that have been established or modified.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
DSCH Specific FDD Information Response		1 <maxno ofDSCHs></maxno 			1	
>DSCH ID	M		9.2.1.26A		_	
>DSCH Flow Control Information	M		9.2.1.26B		_	
>Binding ID	0		9.2.1.3		_	
>Transport Layer Address	0		9.2.1.62		_	
PDSCH Code Mapping	M		9.2.2.27A	PDSCH code mapping to be used	_	

Range bound	Explanation
MaxnoofDSCHs	Maximum number of DSCHs for one UE.

9.2.2.13Bb DSCH-RNTI

DSCH-RNTI is the UE identifier allocated by DRNS to be used over the radio interface by UEs having one or several DSCHs. It is unique within a cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DSCH-RNTI			INTEGER(065535)	

9.2.2.13C FDD DCHs to Modify

The FDD DCHs to Modify IE provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
FDD DCHs to Modify		1 <maxno ofDCHs></maxno 			_	
>UL FP Mode	0		9.2.1.67		_	
>ToAWS	0		9.2.1.58		_	
>ToAWE	0		9.2.1.57		_	
>Transport Bearer Request Indicator	M		9.2.1.61		_	
>DCH Specific Info		1 <maxno ofDCHs></maxno 			-	
>>DCH ID	M		9.2.1.16		_	
>>Transport Format Set	0		9.2.1.64	For the UL.	_	
>>Transport Format Set	0		9.2.1.64	For the DL.	_	
>>Allocation/Retention Priority	0		9.2.1.1		_	
>>Frame Handling Priority	0		9.2.1.29		_	
>>DRAC Control	0		9.2.2.13		_	
>>Guaranteed Rate Information	0		9.2.1.30M		YES	ignore
>>Traffic Class	0		9.2.1.58A		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for one UE.

9.2.2.13D Enhanced DSCH PC

The Enhanced DSCH PC includes all the parameters which are needed for DSCH power control improvement during soft handover.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
			reference	
Enhanced DSCH PC Wnd	M		9.2.2.13G	
Enhanced DSCH PC Counter	M		9.2.2.13E	
Enhanced DSCH Power Offset	М		9.2.2.13H	

9.2.2.13E Enhanced DSCH PC Counter

The Enhanced DSCH PC Counter parameter gives the number of correct cell ID command to receive in the averaging window, *Enhance DSCH PC Wnd* IE, see ref. [10] subclause 5.2.2.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Enhanced DSCH PC			INTEGER(1.	
Counter			.50)	

9.2.2.13F Enhanced DSCH PC Indicator

The Enhanced DSCH PC Indicator indicates whether Enhanced DSCH PC is in use by the UE or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Enhanced DSCH PC Indicator			ENUMERAT ED(Enhance d DSCH PC Active in the UE, Enhanced DSCH PC not Active in the UE)	

9.2.2.13G Enhanced DSCH PC Wnd

The Enhanced DSCH PC Wnd parameter shows the window size to decide primary or non-primary cell, see ref. [10] subclause 5.2.2.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Enhanced DSCH PC Wnd			INTEGER(1.	
			.10)	

9.2.2.13H Enhanced DSCH Power Offset

The Enhanced DSCH Power Offset parameter gives the power offset to be added on DSCH when cell is decided to be primary.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Enhanced DSCH Power Offset			INTEGER(- 150)	Unit dB, step 1 dB

9.2.2.13I Enhanced Primary CPICH Ec/No

Energy per PN chip divided by the total received power spectral density measured on the Primary CPICH by the UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Enhanced Primary CPICH Ec/No			INTEGER (049)	According to the mapping of the Primary CPICH Ec/lo UE
				measurement defined in ref. [23] and [24]

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 Channelisation Code Number			INTEGER(0. . 511)	According to the mapping in [27]. The maximum value is equal to the DL spreading factor –1

9.2.2.14A FDD DL Code Information

The FDD DL Code Information IE provides FDD DL Code information for all DPCHs of one Radio Link.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
FDD DL Code Information		1 <maxnoof DLCodes</maxnoof 			-	
>DL Scrambling Code	М		9.2.2.11		_	
>FDD DL Channelisation Code Number	М		9.2.2.14		-	
>Transmission Gap Pattern Sequence Scrambling Code Information	0		9.2.2.47B		-	

Range bound	Explanation
MaxnoofDLCodes	Maximum number of DL Channelisation Codes for
	one UE.

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 ref. [8]

9.2.2.16 FDD TPC Downlink 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			ENUMERAT ED (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			ENUMERAT	
			ED (first	
			RLS, not first	
			RLS)	

9.2.2.17 Gap Position Mode

Void.

9.2.2.18 Gap Period (TGP)

Void.

9.2.2.19 Gap Starting Slot Number (SN)

Void

9.2.2.19a HS-DSCH FDD Information

The HS-DSCH FDD Information IE provides information for HS-DSCH MAC-d flows to be established.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		1 <maxno ofMACdFl</maxno 	10.0.0.00		_	
		OWS>				
>HS-DSCH MAC-d Flow ID	M		9.2.1.300		_	
>BLER	M		9.2.1.4		_	
>Allocation/Retention Priority	M		9.2.1.1A		_	
>Priority Queue Information		1 <maxno ofPrioQue ues></maxno 				
>>Priority Queue ID	M		9.2.1.45A			
>>Scheduling Priority Indicator	М		9.2.1.51A			
>>MAC-d PDU Size Index		1 <maxno ofMACdP DUindexes ></maxno 				
>>>SID	М		9.2.1.52D			
>>>MAC-d PDU Size	M		9.2.1.34A			
UE Capabilities information		1	0.2.1.0.71			
>HS-DSCH TrCh Bits per HS-DSCH TTI	М		ENUMERA TED (7300, 14600, 20456, 28800,)			
>HS-DSCH multi-code capability	M		ENUMERA TED (5, 10, 15,)			
>Min Inter-TTI Interval	М		INTEGER (13,)			
>MAC-hs reordering buffer size	М		INTÉGÉR (1300,)	The total buffer size defined in UE capability minus the RLC AM buffer		
HARQ Information		1 <maxno ofHARQpr ocesses></maxno 			_	
>Process memory size	M		INTEGER (1172800,)	Number of soft channel bits per process.		
Measurement feedback offset	М		INTEGER (079,)			

Range bound	Explanation
MaxnoofMACdFlows	Maximum number of MAC-d flows.
MaxnoofPrioQueues	Maximum number of Priority Queues.
MaxnoofMACdPDUindexes	Maximum number of MAC-d PDU Size Indexes
	(SIDs).
MaxnoofHARQprocesses	Maximum number of HARQ processes.

9.2.2.19b HS-DSCH FDD Information Response

The HS-DSCH FDD Information Response IE provides information for HS-DSCH MAC-d flows that have been established or modified.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information Response		1 <maxno ofMACdFl ows></maxno 			_	
>HS-DSCH MAC-d Flow ID	M		9.2.1.300		_	
>Binding ID	0		9.2.1.4		_	
>Transport Layer Address	0		9.2.1.63		_	
HS-SCCH Specific Information Response		1 <maxno ofHSSCC Hcodes></maxno 				
>Code Number	М		INTEGER (0127)			
Measurement feedback reporting cycle k1	M		Measurem ent Feedback Reporting Cycle 9.2.2.24a	used by the UE when not in soft handover		
Measurement feedback reporting cycle k2	M		Measurem ent Feedback Reporting Cycle 9.2.2.24a	used by the UE when in soft handover		

Range bound	Explanation
MaxnoofMACdFlows	Maximum number of MAC-d flows.
MaxnoofHSSCCHcodes	Maximum number of HS-SCCH codes.

9.2.2.20 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	Only even positions allowed.
			(04094)	Reference [16]

9.2.2.21 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			ENUMERAT ED (4, 8, 16, 32, 64, 128, 256, 512, 1024, 2048, 4096)	Repetition period for the IB segment in frames

9.2.2.21a Inner Loop DL PC Status

The *Inner Loop DL PC Status* IE indicates whether inner loop DL control shall be active or inactive for all radio links for the UE context.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Inner Loop DL PC Status			ENUMERAT	
·			ED(Active,	
			Inactive)	

9.2.2.21A 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, DRNS shall use the limited power increase algorithm as specified in [10], subclause 5.2.

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

9.2.2.21B IPDL FDD parameters

The IPDL FDD Parameters IE provides the information for the IPDL Configuration applied in FDD mode.

Information Element/Group name	Presence	Range	IE Type and Reference	Semantics description
IP spacing FDD	М		ENUMERAT ED(5,7,10,1 5,20,30,40,5 0,)	See [10]
IP length	М		ENUMERAT ED(5,10,)	See [10]
IP offset	М		INTEGER(09)	See [10]
Seed	М		INTEGER(063)	See [10]
Burst mode parameters	0		9.2.1.4B	

9.2.2.21C Length of TFCI2

This IE indicates the length measured in number of bits of TFCI(field 2). The length of TFCI (field 1) is set to the 10's complement of the length of TFCI(field 2).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Length of TFCI2			Integer (110)	

9.2.2.22 Max Adjustment Period

Void.

9.2.2.23 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 adjustments shall be maximum 1 dB. 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 (110)	Slots

9.2.2.24 Max Number of UL DPDCHs

Maximum number of uplink DPDCHs during the connection. Needed by the rate matching algorithm.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Max Number of UL DPDCHs			INTEGER	
			(16)	

9.2.2.24a Measurement Feedback Reporting Cycle

The Measurement Feedback Reporting Cycle IE provides the duration of the measurement feedback reporting cycle.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Measurement Feedback			ENUMERAT	Multiples of 2 ms intervals;
Reporting Cycle			ED (0, 1, 5,	
			10, 20, 40,	
			80,)	

9.2.2.24A Min DL Channelisation Code Length

Void

9.2.2.25 Min UL Channelisation Code Length

Minimum UL channelisation code length (spreading factor) of a DPDCH during the connection. Needed by rate matching algorithm.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Min UL Channelisation Code Length			ENUMERAT ED(4,8,16, 32,64,128,	
			256)	

9.2.2.26 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			ENUMERAT	
			ED(Fixed,	
			Flexible)	

9.2.2.26A Number of DL Channelisation Codes

This parameter notifies DRNS of the number of DL channelisation codes required for the Radio Link(s).

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Number of DL			INTEGER	
Channelisation Codes			(18)	

9.2.2.27 Pattern Duration (PD)

Void

9.2.2.27a PC Preamble

Indicates DPDCH power control preamble length see ref. [7].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
PCP Preamble			INTEGER(0.	In number of frames.
			.7)	

9.2.2.27A PDSCH Code Mapping

This IE indicates the association between each possible value of TFCI(field 2) and the corresponding PDSCH channelisation code. There are three ways which the UTRAN must choose between in order to signal the mapping information, these are described below. The signalling capacity consumed by the different methods will typically vary depending on the way in which the UTRAN configures usage of the DSCH. 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. Each TFCI(field2) value corresponds to a given PDSCH channelisation code or set of PDSCH codes for multi-code. The DRNS maps TFCI(field2) values to PDSCH codes in the following way:

- The PDSCH codes used for TFCI(field 2) = 0 are given by the SF of the Code Group 1 (i.e. first instance in *PDSCH code mapping*) and the code numbers between CodeNumber₀ (where CodeNumber₀ = "Start code number" of Code Group 1) and CodeNumber₀ + "multi-code info" 1.
- This continues with unit increments in the value of TFCI (Field2) mapped to either unit increments in code numbers or groups of contiguous code numbers in case of multi-code, this until "Stop code number" is reached: So the PDSCH codes used for TFCI(field 2) = k (for k > 0 and k < ("Stop code number" "Start code number" + 1) DIV k) are given by the SF of the Code Group 1 and the code numbers between CodeNumber_k = CodeNumber_{k-1} + "multi-code info" and CodeNumber_k + "multi-code info" 1.
 If "Stop code number" = "Start code number" + "multi-code info" 1 then this is to be interpreted as defining the mapping between the channelisation code(s) and a single TFCI.
- The DRNS constructs its mapping table by repeating this process for all the Code Groups in the order they are instantiated in *PDSCH code mapping*. The first TFCI(field 2) value used in each group is the largest TFCI(field 2) value reached in the previous group incremented by one.

Note: This imposes that "Stop code number" – "Start code number" + 1 is a multiple of the value "multi-code info" for each instance of *PDSCH code mapping*. Furthermore, in the case where multi-code is not used, then "multi-code info" = 1 and the process above also applies.

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 set of PDSCH codes for multi-code.

- The set of PDSCH codes specified in the first instance applies for all values of TFCI(field 2) between 0 and the specified "Max TFCI(field2)".
- 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 instance incremented by one.

 So the set of PDSCH codes specified in a given instance apply for all the values of TFCI(field 2) between the "Max TFCI(field2) value" specified in the previous instance incremented by one and the specified "Max TFCI(field2)" of the considered instance.

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" – 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

Method #3 - Explicit

The mapping between TFCI (field 2) value and PDSCH channelisation code (or a set of PDSCH codes for multicode) is spelt out explicitly for each value of TFCI (field2).

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" - 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

Method #4 - Replace

The "TFCI (field2)" value(s) for which the mapping to PDSCH channelisation code (or a set of PDSCH codes for multicode) is changed are explicitly signalled. Furthermore, the new mapping between TFCI(field 2) value and PDSCH channelisation code(s) is spelt out explicitly for each value of TFCI (field2).

A set of PDSCH codes is composed of all the codes between "Code Number" and "Code Number" + "multicode" - 1. So if multi-code is not used, the set of PDSCH codes is reduced to one element indicated by the *Code Number* IE.

IE/Group name	Presence	Range	IE type and reference	Semantics description
DL Scrambling Code	M		INTEGER (015)	Scrambling code on which PDSCH is transmitted. 0= Primary scrambling code of the cell 115 = Secondary scrambling code

Choice Signalling Method				
>Code Range				
>>PDSCH Code Mapping		1 <maxno CodeGrou ps></maxno 		
>>>Spreading Factor	M	,	Enumerated(4, 8, 16, 32, 64, 128, 256)	
>>>Multi-code Info	М		Integer(116	
>>>Start Code Number	М		Integer(0m axCodeNum Comp-1)	PDSCH code start, Numbering as described in [16]
>>>Stop Code Number	M		Integer(0m axCodeNum Comp-1)	PDSCH code stop, Numbering as described in [16]
>TFCI Range				
>>DSCH Mapping		1 <maxno TFCIGroup s></maxno 		
>>>Max TFCI(field2) Value	M		Integer(110 23)	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	М		Integer(116	
>>>Code Number	М		Integer(0m axCodeNum Comp-1)	Code number of PDSCH code. Numbering as described in [16]
>Explicit				T1 (1) (1)
>>PDSCH Code		1 <maxtf CI_2_Com bs></maxtf 		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	М		Enumerated(4, 8, 16, 32, 64, 128, 256)	SF of PDSCH code
>>>Multi-code Info	М		Integer(116	
>>>Code Number	М		Integer(0m axCodeNum Comp-1)	Code number of PDSCH code. Numbering as described in [16]
>Replace >>Replaced PDSCH code		1 <maxtf CI_2_Com bs></maxtf 		
>>>TFCI (field2)	M		Integer (01023)	Value of TFCI(field 2) for which PDSCH code mapping will be changed
>>>Spreading Factor	M		Enumerated(4, 8, 16, 32, 64, 128, 256)	SF of PDSCH code
>>>Multi-code Info	М		Integer(116	
>>>Code Number	М		Integer(0m axCodeNum Comp-1)	Code number of PDSCH code. Numbering as described in [16]

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.

9.2.2.28 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)	

9.2.2.29 Power Control Mode (PCM)

Void.

9.2.2.30 Power Offset

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Power Offset			INTEGER	Unit dB, Step 0.25 dB, range
			(024)	0-6 dB

9.2.2.31 Power Resume Mode (PRM)

Void.

9.2.2.31A Preamble Signatures

Void.

9.2.2.32 Primary CPICH Ec/No

Energy per chip divided by the power density per band measured on the Primary CPICH by the terminal.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Primary CPICH Ec/No			INTEGER (-	Unit dB, step 1 dB
			30+30)	The value range is typically
				within the range of -24 dB to 0
				dB according to the CPICH
				Ec/Io UE measurement
				defined in ref. [23].

9.2.2.33 Propagation Delay (PD)

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Propagation Delay			INTEGER (0255)	Chips. Step size is 3 chips. 0=0 chips, 1=3 chips,

9.2.2.33A PRACH Minimum Spreading Factor

Void.

9.2.2.34 QE-Selector

Void.

9.2.2.34A RACH Sub Channel Numbers

Void.

9.2.2.35 RL Set ID

The RL Set ID uniquely identifies one RL Set within a UE Context.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RL Set ID			INTEGER	
			(031)	

9.2.2.35A Received Total Wide Band Power

The parameter indicates the Received total wide band power in a cell, see ref. [11].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Received Total Wide			INTEGER(0.	According to mapping in [23].
Band Power			.621)	

9.2.2.36 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			ENUMERAT	
			ED (1, 2,)	

9.2.2.37 Scrambling Code Change

Void.

9.2.2.37A Scrambling Code Number

Void.

9.2.2.37B Secondary CCPCH Info

The *Secondary CCPCH Info* IE provides information on scheduling of broadcast information for DRAC on a Secondary CCPCH in one cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
FDD S-CCPCH Offset	M		9.2.2.15	Corresponds	_	
				to: $\tau_{\text{S-CCPCH,k}}$, see ref. [8]		
DL Scrambling Code	М		9.2.2.11		_	
FDD DL Channelisation Code Number	М		9.2.2.14		_	
TFCS	M		9.2.1.63	For the DL.	_	
Secondary CCPCH Slot Format	М		9.2.2.38		_	
TFCI Presence	C - SlotFormat		9.2.1.55		_	
Multiplexing Position	М		9.2.2.26		_	
STTD Indicator	М		9.2.2.44		_	
FACH/PCH Information		1 <maxfac Hcount+1></maxfac 			_	
>TFS			9.2.1.64	For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	_	
IB Scheduling Information		1			_	
>IB_SG_REP	М		9.2.2.21		_	
>IB Segment Information		1 <maxibse G></maxibse 			-	
>>IB_SG_POS	М		9.2.2.20		_	

Condition	Explanation
SlotFormat	The IE shall be present if the Secondary CCPCH Slot Format IE is
	equal to any of the values from 8 to 17.

Range bound	Explanation
MaxFACHCount	Maximum number of FACHs mapped onto a Secondary CCPCH.
MaxIBSEG	Maximum number of segments for one Information Block.

9.2.2.38 Secondary CCPCH Slot Format

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Secondary CCPCH Slot Format			INTEGER (017,)	See ref. [8].

9.2.2.39 Slot Number (SN)

Void

9.2.2.39a Split Type

This parameter indicates if the "Hard" or "Logical" is used for the TFCI.split mode.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Split Type			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.
			Logical)	field is block co separately. "Logical": meaning that the physical layer TFCI (f 1) and TFCI (field 2) concatenated, field 1 tal the most significant bits field 2 taking the lesignificant bits). The whol then encoded with a significant significant bits that the most significant bits is significant bits.

9.2.2.39A SRB Delay

Indicates the number of frames after the PC Preamble period during which transmission of data on some RRC Signalling Bearers shall be prohibited by UE in accordance with ref. [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SRB Delay			INTEGER(07,)	In number of frames.

9.2.2.40 SSDT Cell Identity

The SSDT Cell Identity is a temporary ID for SSDT assigned to a cell.

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

9.2.2.40A SSDT Cell Identity for EDSCHPC

The SSDT Cell Identity for EDSCHPC is a temporary ID for enhanced DSCH power control assigned to a cell.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
SSDT Cell Identity for			SSDT Cell	
EDSCHPC			Identity	
			9.2.2.40	

9.2.2.41 SSDT Cell Identity Length

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
SSDT Cell Identity Length			ENUMERAT	
Colinging Tongin			ED(Short,	
			Medium,	
			Long)	

9.2.2.42 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			ENUMERAT	
			ED(SSDT	
			Active in the	
			UE, SSDT	
			not Active in	
			the UE)	

9.2.2.43 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			ENUMERAT	
			ED (SSDT	
			Supported,	
			SSDT not	
			supported).	

9.2.2.44 STTD Indicator

Indicates if STTD is active or not.

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

9.2.2.45 STTD Support Indicator

The STTD Support Indicator indicates whether the STTD can be applied to DL DPCH in the cell or not.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
STTD Support Indicator			ENUMERAT	
			ED (STTD	
			Supported,	
			STTD not	
			Supported).	

9.2.2.46 TFCI Signalling Mode

This parameter indicates if the normal or split mode is used for the TFCI.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TFCI Signalling Mode			ENUMERAT	
			ED (Normal,	
			Split)	

9.2.2.46A TFCI PC Support Indicator

The TFCI PC Support Indicator indicates whether the TFCI power control in the DSCH hard split mode can be applied to DL DPCH in the cell or not. TFCI PC Mode 1 means that the only one power offset(TFCI PO[4]) is applied in TFCI power control. TFCI PC Mode 2 means that the cell also supports enhanced DSCH power control and two power offset(TFCI PO and TFCI PO_primary[4]) are applied in TFCI power control.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TFCI PC Support Indicator			ENUMERAT	
			ED (TFCI	
			PC Mode 1	
			Supported,	
			TFCI PC	
			Mode 2	
			Supported)	

9.2.2.47 Transmission Gap Distance (TGD)

Void.

9.2.2.47A Transmission Gap Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence. For details see [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transmission Gap Pattern Sequence Information		1 to <maxtgps></maxtgps>		
>TGPSI Identifier	М		INTEGER(1. . <maxtgps >)</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.</maxtgps>
>TGSN	М		INTEGER (014)	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	0		INTEGER (114)	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 gap pattern. If there is only one transmission gap in the transmission gap pattern, this parameter shall be set to 0 (0 = undefined).
>TGPL1	М		INTEGER (1144,)	The duration of transmission gap pattern 1 in frames.
>TGPL2	0		INTEGER (1144,)	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		ENUMERAT ED (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		ENUMERAT ED (SF/2, higher layer scheduling,)	Method for generating uplink compressed mode gap.
>Downlink Frame Type	М		ENUMERAT ED (A, B)	Defines if frame type 'A' or 'B' shall be used in downlink compressed mode.
>DeltaSIR1	M		INTEGER (030)	Delta in SIR target value to be set in the DRNS during the frame containing the start of 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	М	INTEGER (030)	Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the first transmission gap in the transmission gap pattern,. Step 0.1 dB, Range 0-3dB
>DeltaSIR2	0	INTEGER (030)	Delta in SIR target value to be set in the DRNS during the frame containing the start of the second transmission gap in the transmission gap pattern (without including the effect of the bit-rate increase) When omitted, DeltaSIR2 = DeltaSIR1.
>DeltaSIRafter2	0	INTEGER (030)	Step 0.1 dB, Range 0-3dB Delta in SIR target value to be set in the DRNS one frame after the frame containing the start of the second transmission gap in the transmission gap pattern. When omitted, DeltaSIRafter2 = DeltaSIRafter1. Step 0.1 dB, Range 0-3dB

Condition	Explanation
UL	The IE shall be present if the <i>UL/DL mode</i> IE is set to "UL only" or
	"UL/DL".
DL	The IE shall be present if the <i>UL/DL mode</i> IE is set to "DL only" or
	"UL/DL".

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

9.2.2.47B Transmission Gap Pattern Sequence Scrambling Code Information

This IE indicates whether or not the alternative scrambling code will be used in the DRNS for the Downlink compressed mode method 'SF/2' in the Transmission Gap Pattern Sequence. For details see ref. [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Transmission Gap Pattern Sequence Scrambling Code Information			ENUMERAT ED (code change, no code change)	Code change = alternative scrambling code will be used.

9.2.2.48 Transmit Diversity Indicator

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

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

9.2.2.49 Transmit Gap Length (TGL)

Void

9.2.2.50 Tx Diversity Indicator

The Tx Diversity Indicator indicates if the following conditions are satisfied:

- Primary CPICH is broadcast from two antennas
- STTD is applied to Primary CCPCH
- TSTD is applied to Primary SCH and Secondary SCH

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Tx Diversity Indicator			ENUMERAT	
-			ED (true,	
			false).	

9.2.2.51 UL/DL Compressed Mode Selection

Void

9.2.2.52 UL DPCCH Slot Format

Indicates the slot format used in DPCCH in UL, according to ref. [8].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL DPCCH Slot Format			INTEGER (05,)	

9.2.2.53 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 Number	M		INTEGER (0 2 ²⁴ -1)	
UL Scrambling Code Length	М		ENUMERAT ED(Short, Long)	

9.2.2.54 Uplink Delta SIR

Void

9.2.2.55 Uplink Delta SIR After

Void

9.2.2.56 DPC Mode Change Support Indicator

The DPC Mode Change Support Indicator IE indicates that the particular cell is capable to support DPC mode change.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DPC Mode Change Support			ENUMERATTE	
Indicator			D (DPC Mode	
			Change	
			Supported)	

9.2.3 TDD Specific Parameters

This subclause contains parameters that are specific to TDD.

9.2.3.a Alpha Value

Used to support signalling of cell specific Alpha Value to SRNS.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Alpha Value			ENUMERAT ED(0, 1/8,	
			2/8, 3/8, 4/8, 5/8, 6/8, 7/8,	
			1)	

9.2.3.A Block STTD Indicator

Void.

9.2.3.1 Burst Type

Void.

9.2.3.1a Cell Capability Container TDD

The Cell Capability Container TDD indicates which functionalities a cell supports.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Cell Capability Container TDD			BIT STRTING (32)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicator Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.

9.2.3.1b Cell Capability Container TDD LCR

The Cell Capability Container TDD LCR indicates which functionalities a cell supports.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Cell Capability Container TDD LCR			BIT STRTING (32)	Each bit indicates whether a cell supports a particular functionality or not. The value 1 of a bit indicates that the corresponding functionality is supported in a cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicator Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver
TOD LCR			_	functionality or not. The value 1 of a bit indicates the the corresponding functionality is supported in cell and value 0 indicates that the corresponding functionality is not supported in a cell. Each bit is defined as follows. The first bit: Delayed Activation Support Indicato Note that undefined bits are considered as a spare bit and spare bits shall be set

9.2.3.2 CCTrCH ID

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CCTrCH ID			INTEGER (015)	

9.2.3.2A DCH TDD Information

The DCH TDD Information IE provides information for DCHs to be established.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
DCH Information		1 <maxno ofDCHs></maxno 			-	
>Payload CRC Presence Indicator	М		9.2.1.42		-	
>UL FP Mode	M		9.2.1.67		_	
>ToAWS	M		9.2.1.58		_	
>ToAWE	M		9.2.1.57		_	
>DCH Specific Info		1 <maxno ofDCHs></maxno 			_	
>>DCH ID	M		9.2.1.16		_	
>>CCTrCH ID	М		9.2.3.2	UL CCTrCH in which the DCH is mapped	_	
>>CCTrCH ID	М		9.2.3.2	DL CCTrCH in which the DCH is mapped	-	
>>TrCh Source Statistics Descriptor	M		9.2.1.65		_	
>>Transport Format Set	M		9.2.1.64	For the UL.	_	
>>Transport Format Set	M		9.2.1.64	For the DL.	_	
>>BLER	M		9.2.1.4	For the UL.	_	
>>BLER	M		9.2.1.4	For the DL.	_	
>>Allocation/Retention Priority	M		9.2.1.1		_	
>>Frame Handling Priority	M		9.2.1.29		_	
>>QE-Selector	C- CoorDCH		9.2.1.46A		_	
>>Guaranteed Rate Information	0		9.2.1.30M		YES	ignore
>>Traffic Class	M		9.2.1.58A		YES	ignore

Condition	Explanation
CoorDCH	The IE shall be present if this DCH is part of a set of coordinated DCHs (number of instances of the DCH Specific Info IE is greater than 1).

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for one UE.

9.2.3.2B DCH TDD Information Response

Void

9.2.3.2C DL Timeslot Information

The DL Timeslot Information IE provides information on the time slot allocation for a DL DPCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
DL Timeslot Information		1 to <maxnoof TS></maxnoof 			_	
>Time Slot	M		9.2.1.56		_	
>Midamble Shift and Burst Type	М		9.2.3.4		_	
>TFCI Presence	M		9.2.1.55		_	
>DL Code Information	M		TDD DL Code Information 9.2.3.8C		-	

Range bound	Explanation
MaxnoofTS	Maximum number of Timeslots for a UE.

9.2.3.2D DL Time Slot ISCP Info

The DL Time Slot ISCP Info IE gives interference level for each DL time slot within the Radio Link.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
DL Time Slot ISCP Info		1 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
		ofDLts>				
>Time Slot	M		9.2.1.56		_	
>DL Timeslot ISCP	M		9.2.3.12		-	

Range bound	Explanation
MaxnoofDLts	Maximum number of downlink time slots per Radio Link for
	3.84Mcps TDD.

9.2.3.2E DL Timeslot Information LCR

The DL Timeslot Information LCR IE provides information for DL Timeslot to be established for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE type and	Semantics description	Criticality	Assigned Criticality
			reference	S		
DL Timeslot Information		1			_	
LCR		<maxnoof DLtsLCR></maxnoof 				
>Time Slot LCR	M		9.2.3.12a		-	
>Midamble Shift LCR	M		9.2.3.4C		_	
>TFCI Presence	М		9.2.1.57		_	
>DL Code Information LCR	M		TDD DL Code Information LCR 9.2.3.8D		-	

Range bound	Explanation
MaxnoofDLtSLCR	Maximum number of Downlink time slots per Radio Link for
	1.28Mcps TDD.

9.2.3.2F DL Time Slot ISCP Info LCR

The DL *Time Slot ISCP Info LCR* IE provides information for DL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE type and reference	Semantics description s	Criticality	Assigned Criticality
DL Time Slot ISCP Info LCR		1 <maxnooful tsLCR></maxnooful 			_	
>Time Slot LCR	M		9.2.3.12a		_	
>DL Timeslot ISCP	M		9.2.3.12		_	

Range bound	Explanation
MaxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps
	TDD

9.2.3.3 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			INTEGER	
			(0239)	

9.2.3.3a DSCH TDD Information

The DSCH TDD Information IE provides information for DSCHs to be established.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
DSCH TDD Information		1 <maxno ofDSCHs></maxno 			_	
>DSCH ID	М		9.2.1.26A		_	
>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DSCH is mapped.	-	
>TrCh Source Statistics Descriptor	М		9.2.1.65		_	
>Transport Format Set	M		9.2.1.64		_	
>Allocation/Retention Priority	М		9.2.1.1		_	
>Scheduling Priority Indicator	M		9.2.1.51A		_	
>BLER	М		9.2.1.4		_	
>Traffic Class	M		9.2.1.58A		YES	ignore
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore

Range bound	Explanation
MaxnoofDSCHs	Maximum number of DSCHs for one UE.

9.2.3.3aa HS-DSCH TDD Information

The *HS-DSCH TDD Information* IE provides information for HS-DSCH to be established.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow Specific Information		1 <maxno ofMACdFl ows></maxno 			_	
>HS-DSCH MAC-d Flow ID	M		9.2.1.300		_	
>BLER	M		9.2.1.4		_	
>Allocation/Retention Priority	M		9.2.1.1A		_	
>Priority Queue Information		1 <maxno ofPrioQue ues></maxno 			-	
>>Priority Queue ID	M		9.2.1.45A		-	
>>Scheduling Priority Indicator	М		9.2.1.51A			
>>MAC-d PDU Size Index		1 <maxno ofMACdP DUindexes</maxno 				
>>>SID	M		9.2.1.52D		-	
>>>MAC-d PDU Size	М		9.2.1.34A		-	
UE Capabilities information		1			-	
>HS-DSCH TrCh Bits per HS-DSCH TTI	М		ENUMERA TED (7040, 10228, 14080,)		-	
>HS-DSCH multi-code capability	M		ENUMERA TED (8, 12, 16,) INTEGER		-	
>MAC-hs reordering buffer size	M		INTEGER (1300,)	The total buffer size defined in UE capability minus the RLC AM buffer		
HARQ Information		1 <maxno ofHARQpr ocesses></maxno 			_	
>Process memory size	М		INTEGER (1168960,)	Number of soft channel bits per process.	-	

Range bound	Explanation
MaxnoofMACdFlows	Maximum number of MAC-d flows.
MaxnoofPrioQueues	Maximum number of Priority Queues.
MaxnoofMACdPDUindexes	Maximum number of MAC-d PDU Size Indexes
	(SIDs).
MaxnoofHARQprocesses	Maximum number of HARQ processes.

9.2.3.3ab HS-DSCH TDD Information Response

The *HS-DSCH TDD Information Response* IE provides information for HS-DSCH that have been established or modified.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
HS-DSCH MAC-d Flow		1 <maxno< td=""><td></td><td></td><td>_</td><td></td></maxno<>			_	
Specific Information		ofMACdFl				
Response		OWS>				
>HS-DSCH MAC-d Flow ID	M		9.2.1.300		_	
>Binding ID	0		9.2.1.4		_	
>Transport Layer Address	0		9.2.1.63		_	
HS-SCCH Specific Information Response		0 <maxno ofHSSCC Hcodes></maxno 		Mandatory for 3.84Mcps TDD	GLOBAL	reject
>Time Slot	М		9.2.3.23			
>Midamble Shift and Burst Type	М		9.2.3.7			
>TDD Channelisation Code	М		9.2.3.19			
>HS-SICH Information		1				
>>Time Slot	M		9.2.3.23			
>>Midamble Shift and Burst Type	М		9.2.3.7			
>>TDD Channelisation Code	М		9.2.3.19			
HS-SCCH Specific Information Response LCR		0 <maxno ofHSSCC Hcodes></maxno 		Mandatory for 1.28Mcps TDD only	GLOBAL	reject
>Time Slot LCR	M		9.2.3.24a			
>Midamble shift LCR	М		9.2.3.7A			
>TDD Channelisation Code LCR	М		9.2.3.19a			
>HS-SICH Information LCR		1				
>>Time Slot LCR	М		9.2.3.24a			
>>Midamble shift LCR	М		9.2.3.7A			
>>TDD Channelisation Code LCR	М		9.2.3.19a			

Range bound	Explanation
MaxnoofMACdFlows	Maximum number of MAC-d flows.
MaxnoofHSSCCHcodes	Maximum number of HS-SCCH codes.

9.2.3.3A Maximum Number of Timeslots per Frame

Defines the maximum number of timeslots the UE has the capability of receiving or transmitting.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Maximum Number of			INTEGER	
Timeslots per Frame			(114)	

9.2.3.3B Maximum number of UL Physical Channels per Timeslot

Defines the maximum number of physical channels per frame that the UE is capable to transmit.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Maximum Number of UL			INTEGER	
Physical Channels per			(12)	
Timeslot				

9.2.3.3C Maximum number of DL Physical Channels per Frame

Defines the maximum number of physical channels per frame that the UE is capable to receive.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Maximum Number of DL			INTEGER	
Physical Channels per			(1224)	
Frame				

9.2.3.4 Midamble Shift and Burst Type

This information element indicates burst type and midamble allocation.

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 Configuration Burst Type 1 And 3	М		Integer(4, 8, 16)	As defined in [12]
>>Midamble Shift	C-UE		INTEGER(015	
>Type 2				
>>Midamble Allocation Mode	M		ENUMERATED (Default midamble, Common midamble, UE specific midamble)	
>> Midamble Configuration Burst Type 2	M		Integer(3,6)	As defined in [12]
>>Midamble Shift			INTEGER (015)	
>Type 3				UL only
>>Midamble Allocation Mode	М		ENUMERATED (Default midamble, UE specific midamble)	
>> Midamble Configuration Burst Type 1 And 3	M		Integer(4, 8, 16)	As defined in [12]
>>Midamble Shift	C-UE		INTEGER(015	

Condition	Explanation
UE	The IE shall be present if the Midamble Allocation
	Mode IE is set to "UE-specific midamble".

9.2.3.4A Minimum Spreading Factor

Defines the minimum spreading factor the UE has the capability of receiving or transmitting.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Minimum Spreading			INTEGER	
Factor			(116)	

9.2.3.4B IPDL TDD parameters

The IPDL TDD Parameters IE provides the information for the IPDL Configuration applied in 3.84Mcps TDD mode.

Information Element/Group name	Presence	Range	IE Type and Reference	Semantics description
IP Spacing TDD	М		ENUMERAT ED(30,40,50	See [22]
IP Start	M		, 70, 100,) INTEGER(0. .4095)	See [22]
IP Slot	М		INTEGER(014)	See [22]
IP P-CCPCH	М		ENUMERAT ED(Switch off 1 frame, Switch off 2 frames)	See [22]
Burst mode parameters	0		9.2.1.4B	

9.2.3.4Bb IPDL TDD parameters LCR

The *IPDL TDD Parameters LCR* IE provides the information for the IPDL Configuration applied in 1.28Mcps TDD mode.

Information Element/Group name	Presence	Range	IE Type and Reference	Semantics description
IP Spacing TDD	М		ENUMERAT ED(30,40,50 , 70, 100,)	See [22]
IP Start	M		INTEGER(04095)	See [22]
IP_Sub	M		ENUMERAT ED(First,Sec ond,Both)	See [22]
Burst mode parameters	0		9.2.1.4B	

9.2.3.4C Midamble shift LCR

This information element indicates midamble allocation in 1.28Mcps TDD.

IE/Group name	Presence	Range	IE type and reference	Semantics description
Midamble Allocation Mode	М		Enumerated (Default midamble, Common midamble, UE specific midamble)	
Midamble Shift	C-UE		Integer(015	

Condition	Explanation
UE	The IE shall be present if the Midamble Allocation Mode IE is set to "UE-specific midamble".

9.2.3.4D Neighbouring TDD Cell Information LCR

Void

9.2.3.5 Primary CCPCH RSCP

Received Signal Code Power is the received power on PCCPCH of the target cell after despreading. The reference point for the RSCP is the antenna connector at the UE, see ref. [14].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Primary CCPCH RSCP			INTEGER (091)	According to mapping in in ref. [14].

9.2.3.5A PRACH Midamble

Void.

9.2.3.5B RB Identity

The RB Identity is the identifier of a radio bearer. It is unique for each active Radio bearer among the active radio bearers simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
RB Identity			INTEGER	In line with [16], ch.
			(031)	10.3.4.11

9.2.3.6 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 ref. [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Repetition Length			INTEGER(163	

9.2.3.7 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 ref. [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Repetition Period			ENUMERATED	
			(1,2,4,8,16,32,6	
			4)	

9.2.3.7A Rx Timing Deviation

Measured Rx Timing Deviation as a basis for timing advance, either measured directly from a RACH burst, or calculated from the Rx Timing Deviation measurement on the USCH by adding the current Timing Advance value. For 1.28Mcps TDD this IE must be set to 0.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Rx Timing Deviation			INTEGER (0127)	As specified in [5], ch. 6.2.7.6

9.2.3.7B Secondary CCPCH Info TDD

The *Secondary CCPCH Info TDD* IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

IE/Group Name	Presence	Range	IE type and	Semantics description	Criticality	Assigned Criticality
			reference			
TFCS	M		9.2.1.63	For the DL.	_	
TFCI Coding	M		9.2.3.11		_	
Secondary CCPCH		1 <maxno ofSCCPC Hs></maxno 			_	
>Time Slot	M		9.2.1.56		_	
>Midamble Shift and Burst Type	М		9.2.3.4		_	
>TFCI Presence	M		9.2.1.55		_	
> Secondary CCPCH TDD Code Information	М		9.2.3.7C		_	
>TDD Physical Channel Offset	М		9.2.3.9			
>Repetition Length	M		9.2.3.6		_	
>Repetition Period	M		9.2.3.7		_	
FACH		0maxnoo fFACHs			_	
> TFS	M		9.2.1.64	For the DL.	_	
PCH		01			_	
> TFS	М		9.2.1.64	For the DL.	-	_

Range bound	Explanation
MaxnoofSCCPCHs	Maximum number of Secondary CCPCHs per CCTrCH.
MaxnoofFACHs	Maximum number of FACHs mapped onto a Secondary CCPCH.

9.2.3.7C Secondary CCPCH TDD Code Information

The Secondary CCPCH TDD Code Information IE provides TDD Channelisation Code information for all SCCPCHs of one Time Slot.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Secondary CCPCH TDD Code Information		1 to <maxnoof SCCPCHs ></maxnoof 			_	
>TDD Channelisation Code	М		9.2.3.8		_	

Range bound	Explanation
maxnoofSCCPCHs	Maximum number of SCCPCHs for one CCTrCH.

9.2.3.7D Special Burst Scheduling

The number of frames between special burst transmissions during DTX.

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Special Burst Scheduling			Integer (1, 2,	Number of frames between
			, 256)	special burst transmissions
				during DTX

9.2.3.7E Synchronisation Configuration

The Synchronisation Configuration parameters that are used by the DRNS in the Radio Link Failure/Restore procedure.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
N_INSYNC_IND	M		Integer (1, 2,, 256)	
N_OUTSYNC_IND	М		Integer (1, 2,, 256)	
T_RLFAILURE	M		ENUMERAT ED (0, 0.1, 0.2,, 25.5)	In seconds

9.2.3.7F Secondary CCPCH Info TDD LCR

The *Secondary CCPCH Info TDD LCR* IE provides information on the Secondary CCPCH that carries the logical channel SHCCH for the UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
TFCS	М		9.2.1.63	For the DL.	_	
TFCI Coding	M		9.2.3.11		_	
Secondary CCPCH		1 <maxno ofSCCPC Hs></maxno 			-	
>Time Slot LCR	M		9.2.3.12a		_	
>Midamble Shift LCR	M		9.2.3.4C		_	
>TFCI Presence	M		9.2.1.55		_	
> Secondary CCPCH TDD Code Information LCR	М		9.2.3.7G		_	
>TDD Physical Channel Offset	М		9.2.3.9			
>Repetition Length	M		9.2.3.6		_	
>Repetition Period	M		9.2.3.7		_	
FACH		0 <maxno ofFACHs></maxno 			_	
> TFS	M		9.2.1.64	For the DL.	_	
PCH		01			_	
> TFS	M		9.2.1.64	For the DL.	_	

Range bound	Explanation
MaxnoofSCCPCHs	Maximum number of Secondary CCPCHs per CCTrCH.
MaxnoofFACHs	Maximum number of FACHs mapped onto a Secondary CCPCH.

9.2.3.7G Secondary CCPCH TDD Code Information LCR

The *Secondary CCPCH TDD Code Information LCR* IE provides LCR TDD Channelisation Code information for all SCCPCHs of one Time Slot.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Secondary CCPCH TDD Code Information		1 to <maxnoof SCCPCHs ></maxnoof 			_	
>TDD Channelisation Code LCR	М		9.2.3.8a		_	

Range bound	Explanation
maxnoofSCCPCHs	Maximum number of SCCPCHs for one CCTrCH.

9.2.3.8 TDD Channelisation Code

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code that can have a spreading factor of 1, 2, 4, 8 or 16.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD Channelisation Code			ENUMERATED ((1/1), (2/1), (2/2), (4/1), (4/4), (8/1), (8/8), (16/1), (16/16),)	

9.2.3.8a TDD Channelisation Code LCR

The Channelisation Code Number indicates which Channelisation Code is used for a given Physical Channel. In 1.28Mcps TDD the Channelisation Code is an Orthogonal Variable Spreading Factor code, that can have a spreading factor of 1, 2, 4, 8 or 16 and there is a choice between QPSK and 8PSK modulation.

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) ,)	
Modulation			ENUMERAT	Modulation options for
			ED (QPSK,	1.28Mcps TDD in contrast to
			8PSK,)	3.84Mcps TDD

9.2.3.8A 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 ref. [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD DPCH Offset			CHOICE INTEGER	
			(063) or	
			INTEGER (0255)	

9.2.3.8B TDD DCHs to Modify

The TDD DCHs to Modify IE provides information for DCHs to be modified.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
TDD DCHs to Modify		1 <maxno ofDCHs></maxno 			_	
>UL FP Mode	0		9.2.1.67		_	
>ToAWS	0		9.2.1.58		_	
>ToAWE	0		9.2.1.57		_	
>Transport Bearer Request Indicator	М		9.2.1.61		_	
>DCH Specific Info		1 <maxno ofDCHs></maxno 			_	
>>DCH ID	M		9.2.1.16		_	
>>CCTrCH ID	0		9.2.3.2	UL CCTrCH in which the DCH is mapped.	_	
>>CCTrCH ID	0		9.2.3.2	DL CCTrCH in which the DCH is mapped	-	
>>Transport Format Set	0		9.2.1.64	For the UL.	_	
>>Transport Format Set	0		9.2.1.64	For the DL.	_	
>>Allocation/Retention Priority	0		9.2.1.1		_	
>>Frame Handling Priority	0		9.2.1.29		_	
>>Traffic Class	0		9.2.1.58A		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for one UE.

9.2.3.8C TDD DL Code Information

The TDD DL Code Information IE provides TDD DL Code information for all DPCHs of one DL Time Slot.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
TDD DL Code Information		1 to <maxnoof DPCH></maxnoof 			1	
>DPCH ID	M		9.2.3.3		-	
>TDD Channelisation Code	M		9.2.3.8		ı	

Range bound	Explanation
MaxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.

9.2.3.8D TDD DL Code Information LCR

The TDD DL Code Information LCR IE provides DL Code information for the RL for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE type and reference	Semantics description s	Criticality	Assigned Criticality
TDD DL Code Information LCR		1 <maxnoof DPCHLCR ></maxnoof 			_	
>DPCH ID	М		9.2.3.5		_	
>TDD Channelisation Code LCR	M		9.2.3.8a		_	

Range bound	Explanation
MaxnoOfDPCHLCR	Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD

9.2.3.9 TDD Physical Channel Offset

The TDD Physical Channel Offset represents the phase information for the allocation of a non DPCH physical channel. (CFN mod Repetition Period = TDD Physical Channel Offset) see ref. [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TDD Physical Channel			INTEGER	
Offset			(063)	

9.2.3.10 TDD TPC Downlink Step Size

This parameter indicates step size for the DL power adjustment.

IE/Group Name P	resence	Range	IE type and reference	Semantics description
TDD TPC Downlink Step Size			ENUMERAT ED (1, 2, 3,)	

9.2.3.10A TDD UL Code Information

The TDD UL Code Information IE provides TDD UL Code information for all DPCHs of one UL Time Slot.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
TDD UL Code Information		1 to <maxnoof DPCH></maxnoof 			1	
>DPCH ID	M		9.2.3.3		_	
>TDD Channelisation Code	M		9.2.3.8		_	

Range bound	Explanation
MaxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.

9.2.3.10B TDD UL Code Information LCR

The TDD UL Code Information LCR IE provides information for UL Code to be established for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE type and reference	Semantics description s	Criticality	Assigned Criticality
TDD UL Code Information LCR		1 <maxno OfDPCH LCR></maxno 			-	
>DPCH ID	М		9.2.3.5		_	
>TDD Channelisation Code LCR	М		9.2.3.8a		_	

Range bound	Explanation
MaxnoOfDPCHLCR	Maximum number of DPCH in one CCTrCH for 1.28Mcps TDD.

9.2.3.11 TFCI Coding

The TFCI Coding describes 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	Semantics description
			reference	
TFCI Coding			ENUMERATE	
			D (4, 8, 16,	
			32,)	

9.2.3.12 DL Timeslot ISCP

DL Timeslot ISCP is the measured interference in a downlink timeslot at the UE, see ref. [14].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL Timeslot ISCP			INTEGER (091)	According to mapping in [24].

9.2.3.12a Time Slot LCR

The Time Slot LCR is the number of the traffic time slot within a 5 ms subframe of LCR TDD.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Time Slot LCR			INTEGER	
			(06)	

9.2.3.12A Timing Advance Applied

Defines the need for Timing Advance functions such as Rx Timing Deviation measurement in a particular cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Timing Advance Applied			ENUMERAT ED (Yes,	
			No)	

9.2.3.13 Transport Format Management

Defines whether the cell transmits the transport format information via broadcast or whether the transport format information is transmitted to the UE using dedicated RRC procedures

IE/Group Name	Presence	Range	IE type and	Semantics description
			reference	
Transport Format			ENUMERAT	
Management			ED(Cell	
			Based, UE	
			Based,)	

9.2.3.13A UL Timeslot ISCP

UL Timeslot ISCP is the measured interference in a uplink timeslot at the DRNS, see ref. [14].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL Timeslot ISCP			INTEGER (According to mapping in [24].
			0127)	

9.2.3.13B UL PhysCH SF Variation

Indicates whether variation of SF in UL is supported by Radio Link or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL PhysCH SF Variation			ENUMERAT	
			ED	
			(SF_Variatio	
			n_supported,	
			SF_Variation	
			_NOT_supp	
			orted)	

9.2.3.13C UL Timeslot Information

The UL Timeslot Information IE provides information on the time slot allocation for a UL DPCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
UL Timeslot Information		1 to <maxnoof TS></maxnoof 			_	
>Time Slot	M		9.2.1.56		_	
>Midamble Shift and Burst Type	М		9.2.3.4		_	
>TFCI Presence	М		9.2.1.55		_	
>UL Code Information	M		TDD UL Code Information 9.2.3.10A		-	

Range bound	Explanation		
MaxnoofTS	Maximum number of Timeslots for a UE.		

9.2.3.13D UL Time Slot ISCP Info

The *UL Time Slot ISCP Info* IE gives interference level for each UL time slot within the Radio Link.

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
UL Time Slot ISCP Info		1			_	
		<maxnoof< td=""><td></td><td></td><td></td><td></td></maxnoof<>				
		ULts>				
>Time Slot	М		9.2.1.56		_	
>UL Timeslot ISCP	M		9.2.3.13A		_	

Range bound	Explanation
MaxnoofULts	Maximum number of uplink time slots per Radio Link.

9.2.3.13E TSTD Indicator

Indicates if TSTD shall be active or not for the DL DPCH.

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

9.2.3.13F TSTD Support Indicator

Indicates if UE support TSTD or not for DL DPCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
TSTD Support Indicator			ENUMERAT ED(TSTD supported, TSTD not supported)	

9.2.3.13G UL Timeslot Information LCR

The UL Timeslot Information LCR IE provides information on the timeslot allocation for an UL DPCH.

IE/Group Name	Presence	Range	IE type and reference	Semantics descriptions	Criticality	Assigned Criticality
UL Timeslot Information LCR		1 <maxn oofULts LCR></maxn 			-	
>Time Slot LCR	M		9.2.3.12a		-	
>Midamble Shift LCR	M		9.2.3.4C		-	
>TFCI Presence	M		9.2.1.57		-	
>UL Code Information LCR	M		TDD UL Code Information LCR 9.2.3.10B			

Range bound	Explanation
MaxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps
	TDD.

9.2.3.13H UL Time Slot ISCP Info LCR

The *UL Time Slot ISCP Info LCR* IE provides information for UL Interference level for each time slot within the Radio Link for 1.28Mcps TDD.

IE/Group Name	Presence	Range	IE type and reference	Semantics description s	Criticality	Assigned Criticality
UL Time Slot ISCP Info		1 <maxnooful tsLCR></maxnooful 			1	
>Time Slot LCR	M		9.2.3.12a		_	
>UL Timeslot ISCP	M		9.2.3.26A		_	

Range bound	Explanation
MaxnoofULtsLCR	Maximum number of Uplink time slots per Radio Link for 1.28Mcps
	TDD

9.2.3.14 USCH ID

The USCH ID is the identifier of an uplink shared channel. It is unique among the USCHs simultaneously allocated for the same UE.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
USCH ID			INTEGER	
			(0255)	

9.2.3.15 USCH Information

The USCH Information IE provides information for USCHs to be established.

IE/Group Name	Presenc e	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
USCH Information		1 to <maxnoofu SCHs></maxnoofu 			-	
>USCH ID	M		9.2.3.14		_	
>CCTrCH ID	M		9.2.3.2	UL CCTrCH in which the USCH is mapped	_	
>TrCh Source Statistics Descriptor	М		9.2.1.65		_	
>Transport Format Set	M		9.2.1.64	For USCH	_	
>Allocation/Retention Priority	M		9.2.1.1		_	
>Scheduling Priority Indicator	М		9.2.1.51A		_	
>BLER	M		9.2.1.4			
>RB Info		1 to <maxnoofr B></maxnoofr 		All Radio Bearers using this USCH	_	
>>RB Identity	M		9.2.3.5B		_	
>Traffic class	M		9.2.1.58A		YES	ignore
>Binding ID	0		9.2.1.3	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore
>Transport Layer Address	0		9.2.1.62	Shall be ignored if bearer establishme nt with ALCAP.	YES	ignore

Range bound	Explanation
MaxnoofUSCHs	Maximum number of USCHs for one UE.
MaxnoofRBs	Maximum number of Radio Bearers for one UE.

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

9.3.0 General

Subclause 9.3 presents the Abstract Syntax of RNSAP protocol with ASN.1. In case there is contradiction between the ASN.1 definition in this subclause and the tabular format in subclause 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 RNSAP messages. RNSAP 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 RNSAP 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 RNSAP 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 subclause 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 multivendor 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

```
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-PDU-Descriptions (0) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
  IE parameter types from other modules.
__ ********************
IMPORTS
   Criticality,
   ProcedureID,
   TransactionID
FROM RNSAP-CommonDataTypes
   CommonMeasurementFailureIndication,
    CommonMeasurementInitiationFailure,
    CommonMeasurementInitiationRequest,
   CommonMeasurementInitiationResponse,
    CommonMeasurementReport,
   CommonMeasurementTerminationRequest,
    CommonTransportChannelResourcesFailure,
   CommonTransportChannelResourcesRequest,
   CommonTransportChannelResourcesReleaseRequest,
    CommonTransportChannelResourcesResponseFDD,
    CommonTransportChannelResourcesResponseTDD,
    CompressedModeCommand,
   DedicatedMeasurementFailureIndication,
   DedicatedMeasurementInitiationFailure,
   DedicatedMeasurementInitiationRequest,
   DedicatedMeasurementInitiationResponse,
   DedicatedMeasurementReport,
   DedicatedMeasurementTerminationRequest,
   DL-PowerControlRequest,
   DL-PowerTimeslotControlRequest,
   DownlinkSignallingTransferRequest,
    ErrorIndication,
    InformationExchangeFailureIndication,
    InformationExchangeInitiationFailure,
    InformationExchangeInitiationRequest,
    InformationExchangeInitiationResponse,
    InformationExchangeTerminationRequest,
    InformationReport,
    PagingRequest,
    PhysicalChannelReconfigurationCommand,
    PhysicalChannelReconfigurationFailure,
    PhysicalChannelReconfigurationRequestFDD,
    PhysicalChannelReconfigurationRequestTDD,
    PrivateMessage,
   RadioLinkActivationCommandFDD,
```

```
RadioLinkActivationCommandTDD,
    RadioLinkAdditionFailureFDD.
    RadioLinkAdditionFailureTDD.
    RadioLinkAdditionRequestFDD,
    RadioLinkAdditionRequestTDD,
    RadioLinkAdditionResponseFDD,
    RadioLinkAdditionResponseTDD,
    RadioLinkCongestionIndication,
    RadioLinkDeletionRequest,
    RadioLinkDeletionResponse,
    RadioLinkFailureIndication,
    RadioLinkPreemptionRequiredIndication,
    RadioLinkReconfigurationCancel,
    RadioLinkReconfigurationCommit,
    RadioLinkReconfigurationFailure,
    RadioLinkReconfigurationPrepareFDD,
    RadioLinkReconfigurationPrepareTDD,
    RadioLinkReconfigurationReadyFDD,
    RadioLinkReconfigurationReadyTDD,
    RadioLinkReconfigurationRequestFDD,
    RadioLinkReconfigurationRequestTDD,
    RadioLinkReconfigurationResponseFDD,
    RadioLinkReconfigurationResponseTDD,
    RadioLinkRestoreIndication,
    RadioLinkSetupFailureFDD,
    RadioLinkSetupFailureTDD,
    RadioLinkSetupRequestFDD,
    RadioLinkSetupRequestTDD,
    RadioLinkSetupResponseFDD,
    RadioLinkSetupResponseTDD,
    RelocationCommit,
    ResetRequest,
    ResetResponse,
    UplinkSignallingTransferIndicationFDD,
    UplinkSignallingTransferIndicationTDD
FROM RNSAP-PDU-Contents
    id-commonMeasurementFailure,
    id-commonMeasurementInitiation,
    id-commonMeasurementReporting,
    id-commonMeasurementTermination,
    id-commonTransportChannelResourcesInitialisation,
    id-commonTransportChannelResourcesRelease,
    id-compressedModeCommand,
    id-downlinkPowerControl,
    id-downlinkSignallingTransfer,
    id-downlinkPowerTimeslotControl,
    id-errorIndication,
    id-informationExchangeFailure,
    id-informationExchangeInitiation,
    id-informationReporting,
    id-informationExchangeTermination,
    id-dedicatedMeasurementFailure,
    id-dedicatedMeasurementInitiation,
```

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```
id-dedicatedMeasurementReporting,
   id-dedicatedMeasurementTermination,
   id-paging,
   id-physicalChannelReconfiguration,
   id-privateMessage,
   id-radioLinkActivation,
   id-radioLinkAddition.
   id-radioLinkCongestion,
   id-radioLinkDeletion,
   id-radioLinkFailure,
   id-radioLinkPreemption,
   id-radioLinkRestoration,
   id-radioLinkSetup,
   id-relocationCommit,
   id-reset.
   id-synchronisedRadioLinkReconfigurationCancellation,
   id-synchronisedRadioLinkReconfigurationCommit,
   id-synchronisedRadioLinkReconfigurationPreparation,
   id-unSynchronisedRadioLinkReconfiguration,
   id-uplinkSignallingTransfer
FROM RNSAP-Constants;
      -- Interface Elementary Procedure Class
__ *********************
RNSAP-ELEMENTARY-PROCEDURE ::= CLASS {
   &InitiatingMessage
   &SuccessfulOutcome
                               OPTIONAL,
   &UnsuccessfulOutcome
                                   OPTIONAL,
   &Outcome
                            OPTIONAL,
   &procedureID
                        ProcedureID
                                      UNIQUE,
                                      DEFAULT ignore
   &criticality
                        Criticality
WITH SYNTAX {
   INITIATING MESSAGE
                        &InitiatingMessage
                        &SuccessfulOutcome]
   [SUCCESSFUL OUTCOME
   [UNSUCCESSFUL OUTCOME
                            &UnsuccessfulOutcome]
   [OUTCOME
                     &Outcome]
   PROCEDURE ID
                        &procedureID
   [CRITICALITY
                        &criticality]
    *************
-- Interface PDU Definition
  ****************
RNSAP-PDU ::= CHOICE {
   initiatingMessage
                    InitiatingMessage,
   successfulOutcome
                     SuccessfulOutcome,
```

```
unsuccessfulOutcome UnsuccessfulOutcome,
    out.come
                    Out.come.
InitiatingMessage ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                             ({RNSAP-ELEMENTARY-PROCEDURES}),
                                                             ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
    transactionID TransactionID,
                                                                 ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
    value
                RNSAP-ELEMENTARY-PROCEDURE.&InitiatingMessage
SuccessfulOutcome ::= SEQUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                             ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
                                                             ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID TransactionID,
                                                                 ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
    value
                RNSAP-ELEMENTARY-PROCEDURE.&SuccessfulOutcome
UnsuccessfulOutcome ::= SEOUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                             ({RNSAP-ELEMENTARY-PROCEDURES}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
                                                             ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    transactionID TransactionID,
                RNSAP-ELEMENTARY-PROCEDURE. &UnsuccessfulOutcome ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
    value
Outcome ::= SEOUENCE {
    procedureID RNSAP-ELEMENTARY-PROCEDURE.&procedureID
                                                             ({RNSAP-ELEMENTARY-PROCEDURES}),
                                                             ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID}),
    criticality RNSAP-ELEMENTARY-PROCEDURE.&criticality
    transactionID TransactionID,
                                                         ({RNSAP-ELEMENTARY-PROCEDURES}{@procedureID})
    value
                RNSAP-ELEMENTARY-PROCEDURE. & Outcome
  Interface Elementary Procedure List
RNSAP-ELEMENTARY-PROCEDURES RNSAP-ELEMENTARY-PROCEDURE ::= {
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-1
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-2
    RNSAP-ELEMENTARY-PROCEDURES-CLASS-3
RNSAP-ELEMENTARY-PROCEDURES-CLASS-1 RNSAP-ELEMENTARY-PROCEDURE ::= {
    radioLinkSetupFDD
    radioLinkSetupTDD
    radioLinkAdditionFDD
    radioLinkAdditionTDD
    radioLinkDeletion
    synchronisedRadioLinkReconfigurationPreparationFDD
    synchronisedRadioLinkReconfigurationPreparationTDD
```

```
unSynchronisedRadioLinkReconfigurationFDD
   unSynchronisedRadioLinkReconfigurationTDD
   physicalChannelReconfigurationFDD
   physicalChannelReconfigurationTDD
    dedicatedMeasurementInitiation
    commonTransportChannelResourcesInitialisationFDD
    commonTransportChannelResourcesInitialisationTDD
    commonMeasurementInitiation
    informationExchangeInitiation
   reset
RNSAP-ELEMENTARY-PROCEDURES-CLASS-2 RNSAP-ELEMENTARY-PROCEDURE ::= {
   uplinkSignallingTransferFDD
   uplinkSignallingTransferTDD
   downlinkSignallingTransfer
   relocationCommit
   paging
   {\tt synchronisedRadioLinkReconfigurationCommit}
    synchronisedRadioLinkReconfigurationCancellation
   radioLinkFailure
   radioLinkPreemption
   radioLinkRestoration
   dedicatedMeasurementReporting
   dedicatedMeasurementTermination
   dedicatedMeasurementFailure
   downlinkPowerControlFDD
   downlinkPowerTimeslotControl
    compressedModeCommandFDD
    commonTransportChannelResourcesRelease
   errorIndication
   privateMessage
   radioLinkCongestion
    commonMeasurementFailure
    commonMeasurementReporting
    commonMeasurementTermination
    informationExchangeFailure
    informationExchangeTermination
   informationReporting
   radioLinkActivationFDD
   radioLinkActivationTDD
RNSAP-ELEMENTARY-PROCEDURES-CLASS-3 RNSAP-ELEMENTARY-PROCEDURE ::= {
     *****************
-- Interface Elementary Procedures
__ **********************
```

```
radioLinkSetupFDD RNSAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE RadioLinkSetupRequestFDD
    SUCCESSFUL OUTCOME RadioLinkSetupResponseFDD
    UNSUCCESSFUL OUTCOME
                           RadioLinkSetupFailureFDD
                        { procedureCode id-radioLinkSetup, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                   reject
radioLinkSetupTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkSetupRequestTDD
    SUCCESSFUL OUTCOME RadioLinkSetupResponseTDD
                           RadioLinkSetupFailureTDD
    UNSUCCESSFUL OUTCOME
    PROCEDURE ID
                        { procedureCode id-radioLinkSetup, ddMode tdd }
    CRITICALITY
                    reject
radioLinkAdditionFDD RNSAP-ELEMENTARY-PROCEDURE ::= -
    INITIATING MESSAGE RadioLinkAdditionRequestFDD
    SUCCESSFUL OUTCOME RadioLinkAdditionResponseFDD
    UNSUCCESSFUL OUTCOME
                           RadioLinkAdditionFailureFDD
    PROCEDURE ID
                        { procedureCode id-radioLinkAddition , ddMode fdd }
    CRITICALITY
                    reject
radioLinkAdditionTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkAdditionRequestTDD
    SUCCESSFUL OUTCOME RadioLinkAdditionResponseTDD
    UNSUCCESSFUL OUTCOME
                           RadioLinkAdditionFailureTDD
                        { procedureCode id-radioLinkAddition , ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                   reject
radioLinkDeletion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkDeletionRequest
    SUCCESSFUL OUTCOME RadioLinkDeletionResponse
    PROCEDURE ID
                        { procedureCode id-radioLinkDeletion, ddMode common }
    CRITICALITY
                   reject
synchronisedRadioLinkReconfigurationPreparationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationPrepareFDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationReadyFDD
                           RadioLinkReconfigurationFailure
    UNSUCCESSFUL OUTCOME
                        { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                   reject
synchronisedRadioLinkReconfigurationPreparationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationPrepareTDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationReadyTDD
    UNSUCCESSFUL OUTCOME
                           RadioLinkReconfigurationFailure
    PROCEDURE ID
                        { procedureCode id-synchronisedRadioLinkReconfigurationPreparation, ddMode tdd }
    CRITICALITY
                    reject
```

```
unSynchronisedRadioLinkReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationRequestFDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationResponseFDD
                           RadioLinkReconfigurationFailure
    UNSUCCESSFUL OUTCOME
                       { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    reject
unSynchronisedRadioLinkReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationRequestTDD
    SUCCESSFUL OUTCOME RadioLinkReconfigurationResponseTDD
    UNSUCCESSFUL OUTCOME
                           RadioLinkReconfigurationFailure
                       { procedureCode id-unSynchronisedRadioLinkReconfiguration, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                    reject
physicalChannelReconfigurationFDD RNSAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE PhysicalChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME PhysicalChannelReconfigurationCommand
                           PhysicalChannelReconfigurationFailure
    UNSUCCESSFUL OUTCOME
                       { procedureCode id-physicalChannelReconfiguration, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    reject
physicalChannelReconfigurationTDD RNSAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE PhysicalChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME PhysicalChannelReconfigurationCommand
                           PhysicalChannelReconfigurationFailure
    UNSUCCESSFUL OUTCOME
                        { procedureCode id-physicalChannelReconfiguration, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                   reject
dedicatedMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementInitiationRequest
    SUCCESSFUL OUTCOME DedicatedMeasurementInitiationResponse
                           DedicatedMeasurementInitiationFailure
    UNSUCCESSFUL OUTCOME
                        { procedureCode id-dedicatedMeasurementInitiation, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    reject
commonTransportChannelResourcesInitialisationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME CommonTransportChannelResourcesResponseFDD
                           CommonTransportChannelResourcesFailure
    UNSUCCESSFUL OUTCOME
    PROCEDURE ID
                       { procedureCode id-commonTransportChannelResourcesInitialisation, ddMode fdd }
    CRITICALITY
                    reject
commonTransportChannelResourcesInitialisationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonTransportChannelResourcesRequest
    SUCCESSFUL OUTCOME CommonTransportChannelResourcesResponseTDD
                           CommonTransportChannelResourcesFailure
    UNSUCCESSFUL OUTCOME
```

```
{ procedureCode id-commonTransportChannelResourcesInitialisation, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                    reject
uplinkSignallingTransferFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE UplinkSignallingTransferIndicationFDD
    PROCEDURE ID
                        { procedureCode id-uplinkSignallingTransfer, ddMode fdd }
    CRITICALITY
uplinkSignallingTransferTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE UplinkSignallingTransferIndicationTDD
                        { procedureCode id-uplinkSignallingTransfer, ddMode tdd }
    PROCEDURE ID
    CRITICALITY
                    ignore
downlinkSignallingTransfer RNSAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE DownlinkSignallingTransferRequest
                        { procedureCode id-downlinkSignallingTransfer, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
relocationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RelocationCommit
    PROCEDURE ID
                        { procedureCode id-relocationCommit, ddMode common }
    CRITICALITY
                    ignore
paging RNSAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE PagingRequest
    PROCEDURE ID
                        { procedureCode id-paging, ddMode common }
    CRITICALITY
                    ignore
synchronisedRadioLinkReconfigurationCommit RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationCommit
    PROCEDURE ID
                        { procedureCode id-synchronisedRadioLinkReconfigurationCommit, ddMode common }
    CRITICALITY
                    ignore
synchronisedRadioLinkReconfigurationCancellation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkReconfigurationCancel
    PROCEDURE ID
                        { procedureCode id-synchronisedRadioLinkReconfigurationCancellation, ddMode common }
    CRITICALITY
                    ignore
radioLinkFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkFailureIndication
    PROCEDURE ID
                        { procedureCode id-radioLinkFailure, ddMode common }
    CRITICALITY
                    ignore
radioLinkPreemption RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkPreemptionRequiredIndication
```

```
{ procedureCode id-radioLinkPreemption, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
radioLinkRestoration RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkRestoreIndication
                        { procedureCode id-radioLinkRestoration, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
dedicatedMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementReport
                        { procedureCode id-dedicatedMeasurementReporting, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
dedicatedMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementTerminationRequest
    PROCEDURE ID
                        { procedureCode id-dedicatedMeasurementTermination, ddMode common }
    CRITICALITY
                    ignore
dedicatedMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DedicatedMeasurementFailureIndication
    PROCEDURE ID
                        { procedureCode id-dedicatedMeasurementFailure, ddMode common }
    CRITICALITY
                    ignore
radioLinkCongestion RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE RadioLinkCongestionIndication
    PROCEDURE ID
                        { procedureCode id-radioLinkCongestion, ddMode common }
    CRITICALITY
                    reject
downlinkPowerControlFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DL-PowerControlRequest
    PROCEDURE ID
                        { procedureCode id-downlinkPowerControl, ddMode fdd }
    CRITICALITY
                    ignore
downlinkPowerTimeslotControl RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE DL-PowerTimeslotControlRequest
    PROCEDURE ID
                        { procedureCode id-downlinkPowerTimeslotControl, ddMode tdd }
    CRITICALITY
                    ignore
compressedModeCommandFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CompressedModeCommand
                        { procedureCode id-compressedModeCommand, ddMode fdd }
    PROCEDURE ID
    CRITICALITY
                    ignore
commonTransportChannelResourcesRelease RNSAP-ELEMENTARY-PROCEDURE ::=
    INITIATING MESSAGE CommonTransportChannelResourcesReleaseRequest
```

```
{ procedureCode id-commonTransportChannelResourcesRelease, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
errorIndication RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE ErrorIndication
                        { procedureCode id-errorIndication, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
commonMeasurementInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            CommonMeasurementInitiationRequest
    SUCCESSFUL OUTCOME
                            CommonMeasurementInitiationResponse
    UNSUCCESSFUL OUTCOME
                            CommonMeasurementInitiationFailure
                            { procedureCode id-commonMeasurementInitiation, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            reject
commonMeasurementReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementReport
    PROCEDURE ID
                        { procedureCode id-commonMeasurementReporting, ddMode common }
    CRITICALITY
                        ignore
commonMeasurementTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementTerminationRequest
                        { procedureCode id-commonMeasurementTermination, ddMode common }
    PROCEDURE ID
    CRITICALITY
                    ignore
commonMeasurementFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE CommonMeasurementFailureIndication
    PROCEDURE ID
                        { procedureCode id-commonMeasurementFailure, ddMode common }
    CRITICALITY
                    ignore
informationExchangeInitiation RNSAP-ELEMENTARY-PROCEDURE ::= {
                            InformationExchangeInitiationRequest
    INITIATING MESSAGE
                            InformationExchangeInitiationResponse
    SUCCESSFUL OUTCOME
    UNSUCCESSFUL OUTCOME
                            InformationExchangeInitiationFailure
                            { procedureCode id-informationExchangeInitiation, ddMode common }
    PROCEDURE ID
    CRITICALITY
                            reject
informationReporting RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationReport
    PROCEDURE ID
                            { procedureCode id-informationReporting, ddMode common }
    CRITICALITY
                            ignore
informationExchangeTermination RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            InformationExchangeTerminationRequest
    PROCEDURE ID
                            { procedureCode id-informationExchangeTermination, ddMode common }
    CRITICALITY
                            ignore
```

```
informationExchangeFailure RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                           InformationExchangeFailureIndication
    PROCEDURE ID
                            { procedureCode id-informationExchangeFailure, ddMode common }
    CRITICALITY
                            ignore
privateMessage RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE PrivateMessage
    PROCEDURE ID
                        { procedureCode id-privateMessage, ddMode common }
    CRITICALITY
                    ignore
reset RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            ResetRequest
    SUCCESSFUL OUTCOME
                            ResetResponse
    PROCEDURE ID
                            { procedureCode id-reset, ddMode common }
    CRITICALITY
                            reject
radioLinkActivationFDD RNSAP-ELEMENTARY-PROCEDURE ::= {
                            RadioLinkActivationCommandFDD
    INITIATING MESSAGE
    PROCEDURE ID
                            { procedureCode id-radioLinkActivation, ddMode fdd }
    CRITICALITY
radioLinkActivationTDD RNSAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE
                            RadioLinkActivationCommandTDD
    PROCEDURE ID
                            { procedureCode id-radioLinkActivation, ddMode tdd }
    CRITICALITY
                            ignore
END
```

9.3.3 PDU Definitions

```
__ *******************
-- IE parameter types from other modules.
__ ********************
IMPORTS
   Active-Pattern-Sequence-Information,
   AllocationRetentionPriority,
   AllowedQueuingTime,
   Allowed-Rate-Information,
   AlphaValue,
   AntennaColocationIndicator,
   BLER,
   SCTD-Indicator,
   BindingID,
   C-ID,
   C-RNTI,
   CCTrCH-ID,
   CFN,
   ClosedLoopModel-SupportIndicator,
   ClosedLoopMode2-SupportIndicator,
   Closedlooptimingadjustmentmode,
   CN-CS-DomainIdentifier,
   CN-PS-DomainIdentifier,
   CNDomainType,
   Cause,
   CellCapabilityContainer-FDD,
   CellCapabilityContainer-TDD,
   CellCapabilityContainer-TDD-LCR,
   CellParameterID,
   ChipOffset,
   CommonMeasurementAccuracy,
   CommonMeasurementType,
   CommonMeasurementValue,
   CommonMeasurementValueInformation,
   CommonTransportChannelResourcesInitialisationNotRequired,
   CongestionCause,
   CoverageIndicator,
   CriticalityDiagnostics,
   D-RNTI,
   D-RNTI-ReleaseIndication,
   DCH-FDD-Information,
   DCH-ID,
   DCH-InformationResponse,
   DCH-TDD-Information,
   DL-DPCH-SlotFormat,
   DL-TimeslotISCP,
   DL-Power,
   DL-PowerBalancing-Information,
   DL-PowerBalancing-ActivationIndicator,
   DL-PowerBalancing-UpdatedIndicator,
   DL-ReferencePowerInformation,
   DL-ScramblingCode,
```

```
DL-Timeslot-Information,
DL-TimeslotLCR-Information.
DL-TimeSlot-ISCP-Info.
DL-TimeSlot-ISCP-LCR-Information,
DPC-Mode.
DPC-Mode-Change-SupportIndicator,
DPCH-ID,
DL-DPCH-TimingAdjustment,
DRACControl,
DRXCycleLengthCoefficient,
DedicatedMeasurementType,
DedicatedMeasurementValue,
DedicatedMeasurementValueInformation.
DelayedActivation,
DelayedActivationUpdate,
DiversityControlField,
DiversityMode,
DSCH-FDD-Information,
DSCH-FDD-InformationResponse,
DSCH-FlowControlInformation,
DSCH-FlowControlItem,
DSCH-TDD-Information,
DSCH-ID,
DSCH-RNTI,
SchedulingPriorityIndicator,
EnhancedDSCHPC,
EnhancedDSCHPCCounter,
EnhancedDSCHPCIndicator,
EnhancedDSCHPCWnd,
EnhancedDSCHPowerOffset,
Enhanced-PrimaryCPICH-EcNo,
FACH-FlowControlInformation,
FDD-DCHs-to-Modify,
FDD-DL-ChannelisationCodeNumber,
FDD-DL-CodeInformation,
FDD-S-CCPCH-Offset,
FDD-TPC-DownlinkStepSize,
FirstRLS-Indicator,
FNReportingIndicator,
FrameHandlingPriority,
FrameOffset,
GA-AccessPointPosition,
GA-Cell,
GA-CellAdditionalShapes,
HCS-Prio.
HSDSCH-FDD-Information,
HSDSCH-FDD-Information-Response,
HSDSCH-Information-to-Modify,
HSDSCH-MACdFlow-ID,
HSDSCH-RNTI,
HSDSCH-TDD-Information,
HSDSCH-TDD-Information-Response,
IMSI,
InformationExchangeID,
```

```
InformationReportCharacteristics,
InformationType,
InnerLoopDLPCStatus,
L3-Information,
SplitType,
LengthOfTFCI2,
LimitedPowerIncrease,
MaximumAllowedULTxPower,
MaxNrDLPhysicalchannels,
MaxNrOfUL-DPCHs,
MaxNrTimeslots,
MaxNrULPhysicalchannels,
MeasurementFilterCoefficient,
MeasurementID,
MidambleAllocationMode,
MidambleShiftAndBurstType,
MidambleShiftLCR,
MinimumSpreadingFactor,
MinUL-ChannelisationCodeLength,
MultiplexingPosition,
NeighbouringFDDCellMeasurementInformation,
NeighbouringTDDCellMeasurementInformation,
Neighbouring-GSM-CellInformation,
Neighbouring-UMTS-CellInformation,
NrOfDLchannelisationcodes,
PagingCause,
PagingRecordType,
PDSCHCodeMapping,
PayloadCRC-PresenceIndicator,
PCCPCH-Power,
PC-Preamble,
Permanent-NAS-UE-Identity,
PowerAdjustmentType,
PowerOffset,
PrimaryCCPCH-RSCP,
PrimaryCPICH-EcNo,
PrimaryCPICH-Power,
PrimaryScramblingCode,
PropagationDelay,
PunctureLimit,
OE-Selector,
RANAP-RelocationInformation,
RB-Info,
RL-ID,
RL-Set-ID,
RNC-ID,
RepetitionLength,
RepetitionPeriod,
ReportCharacteristics,
Received-total-wide-band-power,
RequestedDataValue,
RequestedDataValueInformation,
RL-Specific-DCH-Info,
RxTimingDeviationForTA,
```

```
S-FieldLength,
S-RNTI,
SCH-TimeSlot.
SAI,
SFN.
Secondary-CCPCH-Info,
Secondary-CCPCH-Info-TDD,
Secondary-LCR-CCPCH-Info-TDD,
SpecialBurstScheduling,
SSDT-CellID.
SSDT-CellID-Length,
SSDT-Indication,
SSDT-SupportIndicator,
STTD-Indicator,
STTD-SupportIndicator,
AdjustmentPeriod,
ScaledAdjustmentRatio,
MaxAdjustmentStep,
SecondaryCCPCH-SlotFormat,
SRB-Delay,
SyncCase,
SynchronisationConfiguration,
TDD-ChannelisationCode,
TDD-DCHs-to-Modify,
TDD-DL-Code-Information,
TDD-DPCHOffset,
TDD-PhysicalChannelOffset,
TDD-TPC-DownlinkStepSize,
TDD-ChannelisationCodeLCR,
TDD-DL-Code-LCR-Information,
TDD-UL-Code-Information,
TDD-UL-Code-LCR-Information,
TFCI-Coding,
TFCI-PC-SupportIndicator,
TFCI-Presence,
TFCI-SignallingMode,
TimeSlot,
TimeSlotLCR,
TimingAdvanceApplied,
ToAWE,
ToAWS,
TrafficClass,
TransmitDiversityIndicator,
TransportBearerID,
TransportBearerRequestIndicator,
Transmission-Gap-Pattern-Sequence-Information,
TransportFormatManagement,
TransportFormatSet,
TransportLayerAddress,
TrCH-SrcStatisticsDescr,
TSTD-Indicator,
TSTD-Support-Indicator,
UARFCN,
```

```
UC-ID,
    UL-DPCCH-SlotFormat,
    UL-SIR.
    UL-FP-Mode,
    UL-PhysCH-SF-Variation,
    UL-ScramblingCode,
    UL-Timeslot-Information,
    UL-TimeslotLCR-Information,
    UL-TimeSlot-ISCP-Info,
    UL-TimeSlot-ISCP-LCR-Info,
    URA-ID,
    URA-Information,
    USCH-ID,
    USCH-Information
FROM RNSAP-IEs
    PrivateIE-Container{},
    ProtocolExtensionContainer{},
    ProtocolIE-ContainerList{},
    ProtocolIE-ContainerPair{},
    ProtocolIE-ContainerPairList{},
    ProtocolIE-Container{},
    ProtocolIE-Single-Container{},
    RNSAP-PRIVATE-IES,
    RNSAP-PROTOCOL-EXTENSION,
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-IES-PAIR
FROM RNSAP-Containers
    maxNoOfDSCHs,
    maxNoOfUSCHs,
    maxNrOfCCTrCHs,
    maxNrOfDCHs,
    maxNrOfTS,
    maxNrOfDPCHs,
    maxNrOfRLs,
    maxNrOfRLSets,
    maxNrOfRLs-1,
    maxNrOfRLs-2,
    maxNrOfULTs,
    maxNrOfDLTs,
    maxResetContext,
    maxNoOfDSCHsLCR,
    maxNoOfUSCHsLCR,
    maxNrOfCCTrCHsLCR,
    maxNrOfTsLCR,
    maxNrOfDLTsLCR,
    maxNrOfULTsLCR,
    maxNrOfDPCHsLCR,
    maxNrOfLCRTDDNeighboursPerRNC,
    maxNrOfMeasNCell,
    maxNrOfMACdFlows,
    id-Active-Pattern-Sequence-Information,
```

```
id-AdjustmentRatio,
id-AllowedOueuingTime,
id-AntennaColocationIndicator.
id-BindingID.
id-C-ID.
id-C-RNTI,
id-CFN.
id-CFNReportingIndicator,
id-CN-CS-DomainIdentifier,
id-CN-PS-DomainIdentifier,
id-Cause,
id-CauseLevel-RL-AdditionFailureFDD,
id-CauseLevel-RL-AdditionFailureTDD,
id-CauseLevel-RL-ReconfFailure,
id-CauseLevel-RL-SetupFailureFDD,
id-CauseLevel-RL-SetupFailureTDD,
id-CCTrCH-InformationItem-RL-FailureInd,
id-CCTrCH-InformationItem-RL-RestoreInd,
id-CellCapabilityContainer-FDD,
id-CellCapabilityContainer-TDD,
id-CellCapabilityContainer-TDD-LCR,
id-ClosedLoopModel-SupportIndicator,
id-ClosedLoopMode2-SupportIndicator,
id-CNOriginatedPage-PagingRgst,
id-CommonMeasurementAccuracy,
id-CommonMeasurementObjectType-CM-Rprt,
id-CommonMeasurementObjectType-CM-Rgst,
id-CommonMeasurementObjectType-CM-Rsp,
id-CommonMeasurementType,
id-CommonTransportChannelResourcesInitialisationNotRequired,
id-CongestionCause,
id-CoverageIndicator,
id-CriticalityDiagnostics,
id-D-RNTT.
id-D-RNTI-ReleaseIndication.
id-DCHs-to-Add-FDD,
id-DCHs-to-Add-TDD,
id-DCH-DeleteList-RL-ReconfPrepFDD,
id-DCH-DeleteList-RL-ReconfPrepTDD,
id-DCH-DeleteList-RL-ReconfRqstFDD,
id-DCH-DeleteList-RL-ReconfRqstTDD,
id-DCH-FDD-Information.
id-DCH-TDD-Information,
id-FDD-DCHs-to-Modify,
id-TDD-DCHs-to-Modify,
id-DCH-InformationResponse,
id-DCH-Rate-InformationItem-RL-CongestInd,
id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD,
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,
id-DL-CCTrCH-InformationItem-RL-SetupRgstTDD,
```

```
id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD.
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD.
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD.
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD,
id-DL-CCTrCH-InformationModifyList-RL-ReconfRgstTDD,
id-DL-CCTrCH-InformationList-RL-SetupRgstTDD,
id-FDD-DL-CodeInformation,
id-DL-DPCH-Information-RL-ReconfPrepFDD,
id-DL-DPCH-Information-RL-SetupRqstFDD,
id-DL-DPCH-Information-RL-ReconfRgstFDD.
id-DL-DPCH-InformationItem-PhyChReconfRgstTDD,
id-DL-DPCH-InformationItem-RL-AdditionRspTDD,
id-DL-DPCH-InformationItem-RL-SetupRspTDD,
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
id-DL-DPCH-TimingAdjustment,
id-DL-Physical-Channel-Information-RL-SetupRqstTDD,
id-DL-PowerBalancing-Information,
id-DL-PowerBalancing-ActivationIndicator,
id-DL-PowerBalancing-UpdatedIndicator,
id-DL-ReferencePowerInformation,
id-DLReferencePower.
id-DLReferencePowerList-DL-PC-Rgst,
id-DL-ReferencePowerInformation-DL-PC-Rgst,
id-DRXCycleLengthCoefficient,
id-DedicatedMeasurementObjectType-DM-Rprt,
id-DedicatedMeasurementObjectType-DM-Rgst,
id-DedicatedMeasurementObjectType-DM-Rsp,
id-DedicatedMeasurementType,
id-DelayedActivation,
id-DelayedActivationList-RL-ActivationCmdFDD,
id-DelayedActivationList-RL-ActivationCmdTDD,
id-DelayedActivationInformation-RL-ActivationCmdFDD,
id-DelayedActivationInformation-RL-ActivationCmdTDD,
id-DPC-Mode,
id-DPC-Mode-Change-SupportIndicator,
id-DSCHs-to-Add-FDD,
id-DSCHs-to-Add-TDD.
id-DSCH-DeleteList-RL-ReconfPrepTDD,
id-DSCH-Delete-RL-ReconfPrepFDD.
id-DSCH-FDD-Information,
id-DSCH-InformationListIE-RL-AdditionRspTDD,
id-DSCH-InformationListIEs-RL-SetupRspTDD,
id-DSCH-TDD-Information,
id-DSCH-FDD-InformationResponse,
id-DSCH-ModifyList-RL-ReconfPrepTDD,
id-DSCH-Modify-RL-ReconfPrepFDD,
id-DSCH-RNTI,
id-DSCHsToBeAddedOrModified-FDD,
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
```

```
id-EnhancedDSCHPC.
id-EnhancedDSCHPCIndicator.
id-Enhanced-PrimaryCPICH-EcNo.
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD,
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD,
id-GA-Cell.
id-GA-CellAdditionalShapes,
id-HCS-Prio,
id-HSDSCH-FDD-Information,
id-HSDSCH-FDD-Information-Response,
id-HSDSCH-FDD-Information-to-Add,
id-HSDSCH-FDD-Information-to-Delete,
id-HSDSCH-Information-to-Modify,
id-HSDSCH-RNTI,
id-HSDSCH-TDD-Information,
id-HSDSCH-TDD-Information-Response,
id-HSDSCH-TDD-Information-Response-LCR,
id-HSDSCH-TDD-Information-to-Add,
id-HSDSCH-TDD-Information-to-Delete,
id-HSPDSCH-RL-ID.
id-IMSI,
id-InformationExchangeID,
id-InformationExchangeObjectType-InfEx-Rprt,
id-InformationExchangeObjectType-InfEx-Rgst,
id-InformationExchangeObjectType-InfEx-Rsp,
id-InformationReportCharacteristics,
id-InformationType,
id-InnerLoopDLPCStatus,
id-SplitType,
id-LengthOfTFCI2,
id-L3-Information,
id-AdjustmentPeriod,
id-MaxAdjustmentStep,
id-MeasurementFilterCoefficient,
id-MeasurementID,
id-PagingArea-PagingRqst,
id-Permanent-NAS-UE-Identity,
id-FACH-FlowControlInformation,
id-PowerAdjustmentType,
id-PrimCCPCH-RSCP-DL-PC-RqstTDD,
id-PropagationDelay,
id-RANAP-RelocationInformation,
id-ResetIndicator,
id-RL-Information-PhyChReconfRqstFDD,
id-RL-Information-PhyChReconfRgstTDD,
id-RL-Information-RL-AdditionRgstFDD,
id-RL-Information-RL-AdditionRgstTDD,
id-RL-Information-RL-DeletionRgst,
id-RL-Information-RL-FailureInd,
id-RL-Information-RL-ReconfPrepFDD,
id-RL-Information-RL-RestoreInd,
id-RL-Information-RL-SetupRqstFDD,
id-RL-Information-RL-SetupRqstTDD,
id-RL-InformationItem-RL-CongestInd,
```

```
id-RL-InformationItem-DM-Rprt,
id-RL-InformationItem-DM-Rast.
id-RL-InformationItem-DM-Rsp.
id-RL-InformationItem-RL-PreemptRequiredInd,
id-RL-InformationItem-RL-SetupRgstFDD.
id-RL-InformationList-RL-CongestInd,
id-RL-InformationList-RL-AdditionRgstFDD,
id-RL-InformationList-RL-DeletionRgst,
id-RL-InformationList-RL-PreemptRequiredInd,
id-RL-InformationList-RL-ReconfPrepFDD,
id-RL-InformationResponse-RL-AdditionRspTDD,
id-RL-InformationResponse-RL-ReconfReadyTDD,
id-RL-InformationResponse-RL-ReconfRspTDD,
id-RL-InformationResponse-RL-SetupRspTDD,
id-RL-InformationResponseItem-RL-AdditionRspFDD,
id-RL-InformationResponseItem-RL-ReconfReadyFDD,
id-RL-InformationResponseItem-RL-ReconfRspFDD,
id-RL-InformationResponseItem-RL-SetupRspFDD,
id-RL-InformationResponseList-RL-AdditionRspFDD,
id-RL-InformationResponseList-RL-ReconfReadyFDD,
id-RL-InformationResponseList-RL-ReconfRspFDD,
id-RL-InformationResponseList-RL-SetupRspFDD,
id-RL-ReconfigurationFailure-RL-ReconfFail,
id-RL-ReconfigurationReadyTDD-RL-Information,
id-RL-ReconfigurationRequestFDD-RL-InformationList,
id-RL-ReconfigurationRequestFDD-RL-Information-IEs.
id-RL-ReconfigurationRequestTDD-RL-Information,
id-RL-Specific-DCH-Info,
id-RL-Set-InformationItem-DM-Rprt,
id-RL-Set-InformationItem-DM-Rgst,
id-RL-Set-InformationItem-DM-Rsp,
id-RL-Set-Information-RL-FailureInd,
id-RL-Set-Information-RL-RestoreInd,
id-ReportCharacteristics,
id-Reporting-Object-RL-FailureInd,
id-Reporting-Object-RL-RestoreInd,
id-RNC-ID,
id-RxTimingDeviationForTA,
id-S-RNTI,
id-SAI,
id-SFN,
id-SFNReportingIndicator,
id-SRNC-ID.
id-SSDT-CellIDforEDSCHPC,
id-STTD-SupportIndicator,
id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD,
id-TFCI-PC-SupportIndicator,
id-timeSlot-ISCP,
id-TransportBearerID,
id-TransportBearerRequestIndicator,
id-TransportLayerAddress,
id-UC-ID,
id-ContextInfoItem-Reset,
```

```
id-Transmission-Gap-Pattern-Sequence-Information,
id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD.
id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD.
id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD.
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD,
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD.
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD,
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,
id-UL-CCTrCH-InformationItem-RL-SetupRgstTDD,
id-UL-CCTrCH-InformationList-RL-SetupRgstTDD,
id-UL-CCTrCH-InformationListIE-PhyChReconfRgstTDD,
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD,
id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD,
id-UL-DPCH-Information-RL-ReconfPrepFDD,
id-UL-DPCH-Information-RL-ReconfRgstFDD,
id-UL-DPCH-Information-RL-SetupRgstFDD,
id-UL-DPCH-InformationItem-PhyChReconfRqstTDD,
id-UL-DPCH-InformationItem-RL-AdditionRspTDD,
id-UL-DPCH-InformationItem-RL-SetupRspTDD,
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD,
id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD,
id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD,
id-UL-Physical-Channel-Information-RL-SetupRgstTDD,
id-UL-SIRTarget,
id-URA-Information,
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD,
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD,
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD,
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD,
id-USCHs-to-Add,
id-USCH-DeleteList-RL-ReconfPrepTDD,
id-USCH-InformationListIE-RL-AdditionRspTDD.
id-USCH-InformationListIEs-RL-SetupRspTDD,
id-USCH-Information,
id-USCH-ModifyList-RL-ReconfPrepTDD,
id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,
id-DL-Timeslot-ISCP-LCR-Information-RL-SetupRqstTDD,
id-RL-LCR-InformationResponse-RL-SetupRspTDD,
id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD.
id-DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD,
id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD,
id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD,
id-USCH-LCR-InformationListIEs-RL-SetupRspTDD,
id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRqstTDD,
id-RL-LCR-InformationResponse-RL-AdditionRspTDD,
id-UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
id-DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD,
id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD,
```

```
id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD,
    id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD,
    id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadvTDD.
    id-UL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
    id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD,
    id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD,
    id-UL-Timeslot-LCR-InformationList-PhyChReconfRgstTDD,
    id-DL-Timeslot-LCR-InformationList-PhyChReconfRgstTDD,
    id-timeSlot-ISCP-LCR-List-DL-PC-Rgst-TDD,
    id-TSTD-Support-Indicator-RL-SetupRgstTDD,
    id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD,
   id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD,
   id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD,
    id-IPDL-TDD-ParametersLCR,
    id-neighbouringTDDCellMeasurementInformationLCR,
    id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD,
    id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD,
    id-Angle-Of-Arrival-Value-LCR
FROM RNSAP-Constants;
-- RADIO LINK SETUP REQUEST FDD
RadioLinkSetupRequestFDD ::= SEOUENCE {
   protocolIEs
                                                             {{RadioLinkSetupRequestFDD-IEs}},
                                  ProtocolIE-Container
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkSetupRequestFDD-Extensions}}
                                                                                                                     OPTIONAL,
RadioLinkSetupRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-SRNC-ID
                                  CRITICALITY reject TYPE RNC-ID
                                                                                     PRESENCE mandatory}
     ID id-S-RNTI
                                                                                     PRESENCE mandatory }
                                  CRITICALITY reject TYPE S-RNTI
     ID id-D-RNTI
                                   CRITICALITY reject TYPE D-RNTI
                                                                                 PRESENCE optional } |
     ID id-AllowedQueuingTime
                                      CRITICALITY reject TYPE AllowedQueuingTime
                                                                                             PRESENCE optional
     ID id-UL-DPCH-Information-RL-SetupRqstFDD CRITICALITY reject TYPE UL-DPCH-Information-RL-SetupRqstFDD
                                                                                                             PRESENCE mandatory
     ID id-DL-DPCH-Information-RL-SetupRgstFDD CRITICALITY reject TYPE DL-DPCH-Information-RL-SetupRgstFDD
                                                                                                             PRESENCE mandatory
     ID id-DCH-FDD-Information
                                  CRITICALITY reject TYPE DCH-FDD-Information
                                                                                     PRESENCE mandatory } |
     PRESENCE optional
     ID id-RL-Information-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 },
UL-DPCH-Information-RL-SetupRgstFDD ::= SEQUENCE
    ul-ScramblingCode
                                  UL-ScramblingCode,
   minUL-ChannelisationCodeLength
                                          MinUL-ChannelisationCodeLength,
   maxNrOfUL-DPCHs
                                  MaxNrOfUL-DPCHs
                                                          OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 -- ,
```

```
ul-PunctureLimit
                                    PunctureLimit,
    ul-TFCS
                                    TFCS.
    ul-DPCCH-SlotFormat
                                    UL-DPCCH-SlotFormat.
    ul-SIRTarget
                                    UL-SIR
                                                   OPTIONAL.
    diversityMode
                                    DiversityMode,
    sSDT-CellIdLength
                                    SSDT-CellID-Length
                                                           OPTIONAL,
    s-FieldLength
                                    S-FieldLength
                                                           OPTIONAL.
                                    ProtocolExtensionContainer { {UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-DPCH-Information-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                   CRITICALITY reject
    { ID id-DPC-Mode
                                                           EXTENSION DPC-Mode PRESENCE optional },
    . . .
DL-DPCH-Information-RL-SetupRgstFDD ::= SEOUENCE {
    t.FCS
                                    TFCS,
    dl-DPCH-SlotFormat
                                    DL-DPCH-SlotFormat,
    nrOfDLchannelisationcodes
                                   NrOfDLchannelisationcodes,
    tFCI-SignallingMode
                                   TFCI-SignallingMode,
    tFCI-Presence
                                   TFCI-Presence
                                                           OPTIONAL
    -- This IE shall be present if DL DPCH Slot Format IE is equal to any of the values from 12 to 16 --,
    multiplexingPosition
                                       MultiplexingPosition,
    powerOffsetInformation
                                       PowerOffsetInformation-RL-SetupRqstFDD,
    fdd-dl-TPC-DownlinkStepSize
                                    FDD-TPC-DownlinkStepSize,
    limitedPowerIncrease
                                    LimitedPowerIncrease,
    innerLoopDLPCStatus
                                    InnerLoopDLPCStatus,
                                    ProtocolExtensionContainer { {DL-DPCH-Information-RL-SetupRgstFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-DPCH-Information-RL-SetupRqstFDD-ExtlEs RNSAP-PROTOCOL-EXTENSION ::=
     ID id-SplitType CRITICALITY reject EXTENSION SplitType PRESENCE optional }
    ID id-LengthOfTFCI2 CRITICALITY reject EXTENSION LengthOfTFCI2 PRESENCE optional
    . . .
PowerOffsetInformation-RL-SetupRgstFDD ::= SEQUENCE {
       pol-ForTFCI-Bits
                                       PowerOffset,
       po2-ForTPC-Bits
                                       PowerOffset,
       po3-ForPilotBits
                                       PowerOffset.
       iE-Extensions
                                       ProtocolExtensionContainer { { PowerOffsetInformation-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
PowerOffsetInformation-RL-SetupRgstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-SetupRqstFDD
                                           ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
SetupRqstFDD }
RL-InformationItemIEs-RL-SetupRqstFDD RNSAP-PROTOCOL-IES ::= {
```

```
PRESENCE mandatory }
RL-InformationItem-RL-SetupRgstFDD ::= SEQUENCE {
   rt.-TD
                                 RL-ID.
   C-TD
                                 C-ID.
   firstRLS-indicator
                                 FirstRLS-Indicator.
   frameOffset
                                 FrameOffset,
   chipOffset
                                 ChipOffset,
                                 PropagationDelay
   propagationDelay
                                                       OPTIONAL,
   diversityControlField
                                 DiversityControlField
                                                           OPTIONAL
   -- This IE shall be present if the RL is not the first one in the RL-InformationList-RL-SetupRqstFDD --,
                                                   OPTIONAL,
   dl-InitialTX-Power
                                 DL-Power
   primaryCPICH-EcNo
                                 PrimaryCPICH-EcNo
                                                           OPTIONAL,
   sSDT-CellID
                                 SSDT-CellID
                                                   OPTIONAL.
   transmitDiversityIndicator
                                 TransmitDiversityIndicator
                                                               OPTIONAL.
   -- This IE shall be present unless Diversity Mode IE in UL DPCH Information group is "none"
                                 ProtocolExtensionContainer { {RL-InformationItem-RL-SetupRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
RL-InformationItem-RL-SetupRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-SSDT-CellIDforEDSCHPC CRITICALITY ignore EXTENSION SSDT-CellID
                                                                             PRESENCE conditional } |
   -- This IE shall be present if Enhanced DSCH PC IE is present in the DSCH Information IE.
                                                CRITICALITY ignore
                                                                                                                PRESENCE optional } |
     ID id-Enhanced-PrimaryCPICH-EcNo
                                                                          EXTENSION Enhanced-PrimaryCPICH-EcNo
     ID id-RL-Specific-DCH-Info
                                CRITICALITY ignore
                                                       EXTENSION RL-Specific-DCH-Info
                                                                                        PRESENCE optional }
    { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional },
RadioLinkSetupRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                                CRITICALITY ignore
                                                                                                             PRESENCE optional } |
                                                                          EXTENSION Permanent-NAS-UE-Identity
     ID id-DL-PowerBalancing-Information
                                            CRITICALITY ignore
                                                                  EXTENSION DL-PowerBalancing-Information
                                                                                                             PRESENCE optional |
     ID id-HSDSCH-FDD-Information
                                                                          EXTENSION HSDSCH-FDD-Information
                                                                                                             PRESENCE optional } |
                                                CRITICALITY reject
     ID id-HSPDSCH-RL-ID
                                                CRITICALITY reject
                                                                          EXTENSION RL-ID
                                                                                                             PRESENCE conditional },
     ******************
-- RADIO LINK SETUP REQUEST TDD
  RadioLinkSetupRequestTDD ::= SEOUENCE {
   protocolIEs
                                 ProtocolIE-Container
                                                          {{RadioLinkSetupRequestTDD-IEs}},
   protocolExtensions
                                 ProtocolExtensionContainer {{RadioLinkSetupRequestTDD-Extensions}}
                                                                                                                OPTIONAL.
RadioLinkSetupRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-SRNC-ID
                                                    CRITICALITY reject TYPE RNC-ID
                                                                                                                   PRESENCE mandatory
     ID id-S-RNTI
                                                    CRITICALITY reject TYPE S-RNTI
                                                                                                                   PRESENCE mandatory
     ID id-D-RNTI
                                                                                                                   PRESENCE optional }
                                                    CRITICALITY reject TYPE D-RNTI
```

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{ ID id-UL-Physical-Channel-Information-RL-SetupRqstTDD CRITICALITY reject TYPE UL-Physical-Channel-Information-RL-SetupRqstTDD
                                                                                                                   PRESENCE
mandatory } |
   { ID id-DL-Physical-Channel-Information-RL-SetupRgstTDD CRITICALITY reject TYPE DL-Physical-Channel-Information-RL-SetupRgstTDD
                                                                                                                   PRESENCE
mandatory } |
     ID id-AllowedOueuingTime
                                               CRITICALITY reject TYPE AllowedOueuingTime
                                                                                                         PRESENCE optional }
     PRESENCE optional }
     ID id-DCH-TDD-Information
                                                                                 PRESENCE optional
                                 CRITICALITY reject TYPE DCH-TDD-Information
    ID id-DSCH-TDD-Information
                                 CRITICALITY reject TYPE DSCH-TDD-Information
                                                                                 PRESENCE optional
                              CRITICALITY reject TYPE USCH-Information
     ID id-USCH-Information
                                                                          PRESENCE optional } |
   ID id-RL-Information-RL-SetupRqstTDD
                                               CRITICALITY reject TYPE RL-Information-RL-SetupRqstTDD
                                                                                                         PRESENCE mandatory },
   . . .
UL-Physical-Channel-Information-RL-SetupRgstTDD ::= SEQUENCE {
   maxNrTimeslots-UL
                              MaxNrTimeslots,
                              MinimumSpreadingFactor,
   minimumSpreadingFactor-UL
   maxNrULPhysicalchannels
                              MaxNrULPhysicalchannels,
                              ProtocolExtensionContainer { {UL-Physical-Channel-InformationItem-RL-SetupRgstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-Physical-Channel-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
DL-Physical-Channel-Information-RL-SetupRgstTDD ::= SEQUENCE {
   maxNrTimeslots-DL
                              MaxNrTimeslots,
   minimumSpreadingFactor-DL
                              MinimumSpreadingFactor,
   maxNrDLPhysicalchannels
                              MaxNrDLPhysicalchannels,
   iE-Extensions
                              ProtocolExtensionContainer { {DL-Physical-Channel-InformationItem-RL-SetupRgstTDD-ExtIEs} } OPTIONAL,
DL-Physical-Channel-InformationItem-RL-SetupRgstTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
UL-CCTrCH-InformationList-RL-SetupRqstTDD
                                            ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationItemIEs-RL-SetupRgstTDD} }
UL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
   UL-CCTrCH-InformationItem-RL-SetupRqstTDD ::= SEQUENCE {
   cCTrCH-ID
                           CCTrCH-ID,
   ul-TFCS
                           TFCS,
   tFCI-Coding
                           TFCI-Coding,
   ul-PunctureLimit
                              PunctureLimit,
                              ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
```

```
UL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationList-RL-SetupRqstTDD
                                             ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationItemIEs-RL-SetupRgstTDD} }
DL-CCTrCH-InformationItemIEs-RL-SetupRqstTDD RNSAP-PROTOCOL-IES ::= {
   DL-CCTrCH-InformationItem-RL-SetupRgstTDD ::= SEQUENCE {
   cCTrCH-ID
                           CCTrCH-ID,
   dl-TFCS
                            TFCS,
   tFCI-Coding
                            TFCI-Coding,
   dl-PunctureLimit
                               PunctureLimit,
   tdd-TPC-DownlinkStepSize
                               TDD-TPC-DownlinkStepSize,
                               CCTrCH-TPCList-RL-SetupRgstTDD OPTIONAL,
   cCTrCH-TPCList
   iE-Extensions
                               ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationItem-RL-SetupRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
CCTrCH-TPCList-RL-SetupRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCItem-RL-SetupRqstTDD
CCTrCH-TPCItem-RL-SetupRgstTDD ::= SEQUENCE {
   cCTrCH-ID
                                   CCTrCH-ID,
   iE-Extensions
                                   ProtocolExtensionContainer { { CCTrCH-TPCItem-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
CCTrCH-TPCItem-RL-SetupRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-SetupRgstTDD ::= SEQUENCE
   rL-ID
                            RL-ID,
   c-ID
                            C-ID,
   frameOffset
                           FrameOffset,
   specialBurstScheduling
                            SpecialBurstScheduling,
                               PrimaryCCPCH-RSCP
   primaryCCPCH-RSCP
                                                    OPTIONAL,
   dL-TimeSlot-ISCP
                               DL-TimeSlot-ISCP-Info OPTIONAL,
   --for 3.84Mcps TDD only
                               ProtocolExtensionContainer { {RL-Information-RL-SetupRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-RL-SetupRqstTDD-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
   EXTENSION
                                                                                        DL-TimeSlot-ISCP-LCR-Information PRESENCE
optional }|
```

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{ ID id-TSTD-Support-Indicator-RL-SetupRqstTDD
                                                      CRITICALITY ignore
                                                                                     TSTD-Support-Indicator
                                                                                                                PRESENCE
                                                                          EXTENSION
optional }|
   -- for 1.28Mcps TDD only
    ID id-RL-Specific-DCH-Info
                              CRITICALITY ignore
                                                  EXTENSION RL-Specific-DCH-Info
                                                                                 PRESENCE optional } |
   { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional },
RadioLinkSetupRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                            CRITICALITY ignore
                                                                   EXTENSION Permanent-NAS-UE-Identity
                                                                                                    PRESENCE optional } |
     ID id-HSDSCH-TDD-Information
                                            CRITICALITY reject
                                                                   EXTENSION HSDSCH-TDD-Information PRESENCE optional }
                                                                                                    PRESENCE conditional },
   { ID id-HSPDSCH-RL-ID
                                            CRITICALITY reject
                                                                   EXTENSION RL-ID
       ****************
-- RADIO LINK SETUP RESPONSE FDD
    *****************
RadioLinkSetupResponseFDD ::= SEQUENCE {
                                                     {{RadioLinkSetupResponseFDD-IEs}},
   protocolIEs
                              ProtocolIE-Container
                              ProtocolExtensionContainer {{RadioLinkSetupResponseFDD-Extensions}}
   protocolExtensions
                                                                                                       OPTIONAL,
RadioLinkSetupResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                                                                 PRESENCE optional
                                     CRITICALITY ignore TYPE D-RNTI
     ID id-CN-PS-DomainIdentifier
                                                                                  PRESENCE optional
                                     CRITICALITY ignore TYPE CN-PS-DomainIdentifier
     ID id-CN-CS-DomainIdentifier
                                     CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                  PRESENCE optional
    PRESENCE optional } |
    ID id-UL-SIRTarget
                                     CRITICALITY ignore TYPE UL-SIR
                                                                                  PRESENCE optional }.
   { ID id-CriticalityDiagnostics
                                     CRITICALITY ignore TYPE CriticalityDiagnostics
RL-InformationResponseList-RL-SetupRspFDD
                                        ::= SEOUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-SetupRspFDD} }
RL-InformationResponseItemIEs-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
   RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
   rL-ID
                              RL-ID,
   rL-Set-ID
                              RL-Set-ID,
   uRA-Information
                              URA-Information
                                               OPTIONAL.
   sAI
                              SAI,
   qA-Cell
                              GA-Cell
                                        OPTIONAL,
   qA-AccessPointPosition
                              GA-AccessPointPosition
                                                      OPTIONAL,
   received-total-wide-band-power Received-total-wide-band-power,
                              Secondary-CCPCH-Info
   secondary-CCPCH-Info
```

```
dl-CodeInformation
                                    FDD-DL-CodeInformation,
    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.
    sSDT-SupportIndicator
                                    SSDT-SupportIndicator,
    maxUL-SIR
                                    UL-SIR,
    minUL-SIR
                                    UL-SIR.
    closedlooptimingadjustmentmode Closedlooptimingadjustmentmode OPTIONAL,
    maximumAllowedULTxPower
                                    MaximumAllowedULTxPower,
    maximumDLTxPower
                                    DL-Power,
    minimumDLTxPower
                                    DL-Power,
                                    PrimaryScramblingCode
    primaryScramblingCode
                                                            OPTIONAL,
    uL-UARFCN
                                    UARFCN
                                                             OPTIONAL,
    dL-UARFCN
                                    UARFCN
                                                            OPTIONAL,
    primaryCPICH-Power
                                    PrimaryCPICH-Power,
    dSCHInformationResponse
                                    DSCH-InformationResponse-RL-SetupRspFDD OPTIONAL,
                                        Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-UMTS-CellInformation
    neighbouring-GSM-CellInformation
                                        Neighbouring-GSM-CellInformation OPTIONAL,
                                    PC-Preamble,
    pC-Preamble
    sRB-Delay
                                    SRB-Delay,
    iE-Extensions
                                    ProtocolExtensionContainer { {RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    . . .
RL-InformationResponseItem-RL-SetupRspFDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                            CRITICALITY ignore EXTENSION
                                                                             GA-CellAdditionalShapes
                                                                                                         PRESENCE optional } |
     ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore
                                                                             EXTENSION
                                                                                             DL-PowerBalancing-ActivationIndicator
                                                                                                                                       PRESENCE
optional}|
      ID id-HSDSCH-FDD-Information-Response
                                                    CRITICALITY ignore
                                                                             EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                           PRESENCE optional |
                                                                            TFCI-PC-SupportIndicator
                                                                                                         PRESENCE optional }
      ID id-TFCI-PC-SupportIndicator
                                            CRITICALITY ignore EXTENSION
     ID id-HCS-Prio
                                CRITICALITY ignore EXTENSION
                                                                HCS-Prio
                                                                                 PRESENCE optional },
DiversityIndication-RL-SetupRspFDD ::= CHOICE {
                                    Combining-RL-SetupRspFDD,
    combining
    nonCombiningOrFirstRL
                                    NonCombiningOrFirstRL-RL-SetupRspFDD
Combining-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID
                                ProtocolExtensionContainer { { CombiningItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
CombiningItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse
                                            CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                         PRESENCE optional },
    . . .
NonCombiningOrFirstRL-RL-SetupRspFDD ::= SEQUENCE {
    dCH-InformationResponse
                                DCH-InformationResponse,
    iE-Extensions
                                ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
    . . .
```

```
NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponse-RL-SetupRspFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseIE-RL-SetupRspFDD }}
DSCH-InformationResponseIE-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
   { ID id-DSCH-FDD-InformationResponse CRITICALITY ignore TYPE
                                                                DSCH-FDD-InformationResponse PRESENCE mandatory }
RadioLinkSetupResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DSCH-RNTI
                                CRITICALITY ignore
                                                         EXTENSION DSCH-RNTI
                                                                               PRESENCE optional } |
   { ID id-HSDSCH-RNTI
                            CRITICALITY reject
                                                                                      PRESENCE optional },
                                                  EXTENSION HSDSCH-RNTI
-- RADIO LINK SETUP RESPONSE TDD
  RadioLinkSetupResponseTDD ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                         {{RadioLinkSetupResponseTDD-IEs}},
                                ProtocolExtensionContainer {{RadioLinkSetupResponseTDD-Extensions}}
   protocolExtensions
                                                                                                             OPTIONAL,
RadioLinkSetupResponseTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                CRITICALITY ignore TYPE D-RNTI
                                                                               PRESENCE optional }
     ID id-CN-PS-DomainIdentifier
                                       CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                       PRESENCE optional
     ID id-CN-CS-DomainIdentifier
                                                                                       PRESENCE optional
                                       CRITICALITY ignore TYPE CN-CS-DomainIdentifier
     --Mandatory for 3.84Mcps TDD only
   { ID id-UL-SIRTarget
                                   CRITICALITY ignore TYPE UL-SIR
                                                                               PRESENCE mandatory } |
   { ID id-CriticalityDiagnostics
                                   CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                       PRESENCE optional },
RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
   rL-ID
                            RL-ID,
                            URA-Information
   uRA-Information
                                              OPTIONAL,
   sAI
                            SAI,
   qA-Cell
                            GA-Cell
                                       OPTIONAL,
   qA-AccessPointPosition
                            GA-AccessPointPosition OPTIONAL,
   ul-TimeSlot-ISCP-Info
                            UL-TimeSlot-ISCP-Info,
   maxUL-SIR
                            UL-SIR,
   minUL-SIR
                            UL-SIR,
                            MaximumAllowedULTxPower,
   maximumAllowedULTxPower
   maximumDLTxPower
                            DL-Power,
   minimumDLTxPower
                            DL-Power,
   uARFCNforNt
                            UARFCN
                                              OPTIONAL,
```

```
OPTIONAL,
    cellParameterID
                                CellParameterID
    syncCase
                                SyncCase
                                                    OPTIONAL.
    sCH-TimeSlot
                                SCH-TimeSlot
                                                    OPTIONAL.
    -- This IE shall be present if Sync Case IE is Case2. --
    sCTD-Indicator
                        SCTD-Indicator OPTIONAL.
    pCCPCH-Power
                                PCCPCH-Power,
    timingAdvanceApplied
                                TimingAdvanceApplied,
    alphaValue
                                AlphaValue,
    ul-PhysCH-SF-Variation
                                UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                        SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD
                                        Secondary-CCPCH-Info-TDD
                                                                    OPTIONAL,
    ul-CCTrCHInformation
                                        UL-CCTrCHInformationList-RL-SetupRspTDD
                                                                                     OPTIONAL,
    dl-CCTrCHInformation
                                        DL-CCTrCHInformationList-RL-SetupRspTDD
                                                                                     OPTIONAL,
    dCH-InformationResponse
                                        DCH-InformationResponseList-RL-SetupRspTDD OPTIONAL,
    dsch-InformationResponse
                                        DSCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    usch-InformationResponse
                                        USCH-InformationResponse-RL-SetupRspTDD OPTIONAL,
    neighbouring-UMTS-CellInformation
                                                Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                                Neighbouring-GSM-CellInformation OPTIONAL,
                                    ProtocolExtensionContainer { {RL-InformationResponse-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-InformationResponse-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-GA-CellAdditionalShapes
                                            CRITICALITY ignore EXTENSION
                                                                            GA-CellAdditionalShapes
      ID id-HSDSCH-TDD-Information-Response
                                                CRITICALITY ignore
                                                                        EXTENSION HSDSCH-TDD-Information-Response
                                                                                                                       PRESENCE optional } |
    { ID id-HCS-Prio
                               CRITICALITY ignore EXTENSION HCS-Prio
                                                                                 PRESENCE optional },
    . . .
UL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-SetupRspTDD}}
UL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD CRITICALITY ignore TYPE UL-CCTrCHInformationListIE-RL-SetupRspTDD
                                                                                                                                 PRESENCE mandatory }
UL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-SetupRspTDD
UL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
    ul-DPCH-Information
                                    UL-DPCH-InformationList-RL-SetupRspTDD
                                                                                OPTIONAL,
                                    ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    {ID id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD
                                                                    CRITICALITY ignore
                                                                                             EXTENSION UL-SIR
                                                                                                                 PRESENCE optional }.
    . . .
UL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-SetupRspTDD} }
UL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-InformationItem-RL-SetupRspTDD
                                                        CRITICALITY ignore TYPE UL-DPCH-InformationItem-RL-SetupRspTDD PRESENCE mandatory}
```

```
UL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE
    repetitionPeriod
                                   RepetitionPeriod,
    repetitionLength
                                   RepetitionLength,
                                   TDD-DPCHOffset,
    tDD-DPCHOffset
    uL-Timeslot-Information
                                   UL-Timeslot-Information.
                                   ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-SetupRspTDD}}
DL-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD CRITICALITY ignore TYPE DL-CCTrCHInformationListIE-RL-SetupRspTDD PRESENCE mandatory }
DL-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-SetupRspTDD
DL-CCTrCHInformationItem-RL-SetupRspTDD ::= SEOUENCE {
    cCTrCH-ID
                               CCTrCH-ID,
    dl-DPCH-Information
                                    DL-DPCH-InformationList-RL-SetupRspTDD
                                                                                OPTIONAL,
                                    ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-SetupRspTDD} }
DL-DPCH-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
                                                     CRITICALITY ignore TYPE DL-DPCH-InformationItem-RL-SetupRspTDD PRESENCE mandatory}
    { ID id-DL-DPCH-InformationItem-RL-SetupRspTDD
DL-DPCH-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    repetitionPeriod
                                   RepetitionPeriod,
    repetitionLength
                                   RepetitionLength,
                                   TDD-DPCHOffset,
    tDD-DPCHOffset
                                   DL-Timeslot-Information,
    dL-Timeslot-Information
    iE-Extensions
                                   ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    . . .
DL-DPCH-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-SetupRspTDD}}
```

```
DCH-InformationResponseListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    DSCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationList-RL-SetupRspTDD}}
DSCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIEs-RL-SetupRspTDD
                                                     CRITICALITY ignore TYPE DSCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
DSCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-SetupRspTDD
DSCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
   dsch-ID
                          DSCH-ID.
   dSCH-FlowControlInformation
                                  DSCH-FlowControlInformation,
   bindingID
                          BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
    transportFormatManagement TransportFormatManagement,
                          ProtocolExtensionContainer { {DSCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
DSCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationList-RL-SetupRspTDD}}
USCH-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-InformationListIEs-RL-SetupRspTDD
                                                    CRITICALITY ignore TYPE USCH-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory }
USCH-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-SetupRspTDD
USCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
   usch-ID
                              USCH-ID,
   bindingID
                              BindingID OPTIONAL,
    transportLayerAddress
                              TransportLayerAddress OPTIONAL,
    transportFormatManagement
                              TransportFormatManagement,
                              ProtocolExtensionContainer { {USCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
USCHInformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkSetupResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-SetupRspTDD CRITICALITY ignore EXTENSION RL-LCR-InformationResponse-RL-SetupRspTDD
                                                                                                                              PRESENCE
mandatory}
   --Mandatory for 1.28Mcps TDD only
    { ID id-HSDSCH-RNTI
                              CRITICALITY reject
                                                                                           PRESENCE optional },
                                                     EXTENSION HSDSCH-RNTI
    . . .
```

```
RL-LCR-InformationResponse-RL-SetupRspTDD ::= SEOUENCE {
                                RL-ID.
    uRA-Information
                                URA-Information.
    sAI
                                SAI,
    qA-Cell
                                GA-Cell
                                            OPTIONAL.
                                GA-AccessPointPosition OPTIONAL,
    qA-AccessPointPosition
    ul-TimeSlot-ISCP-LCR-Info
                                UL-TimeSlot-ISCP-LCR-Info,
    maxUL-SIR
                                UL-SIR,
    minUL-SIR
                                UL-SIR,
                                MaximumAllowedULTxPower,
    maximumAllowedULTxPower
    maximumDLTxPower
                                DL-Power,
    minimumDLTxPower
                                DL-Power,
    uARFCNforNt.
                                UARECN
                                                         OPTIONAL,
    cellParameterID
                                CellParameterID
                                                         OPTIONAL,
    sCTD-Indicator
                        SCTD-Indicator OPTIONAL,
    pCCPCH-Power
                                PCCPCH-Power,
    alphaValue
                                AlphaValue,
                                UL-PhysCH-SF-Variation,
    ul-PhysCH-SF-Variation
    synchronisationConfiguration
                                            SynchronisationConfiguration,
    secondary-LCR-CCPCH-Info-TDD
                                            Secondary-LCR-CCPCH-Info-TDD
                                                                                             OPTIONAL,
    ul-LCR-CCTrCHInformation
                                            UL-LCR-CCTrCHInformationList-RL-SetupRspTDD
                                                                                             OPTIONAL,
    dl-LCR-CCTrCHInformation
                                            DL-LCR-CCTrCHInformationList-RL-SetupRspTDD
                                                                                             OPTIONAL,
    dCH-InformationResponse
                                            DCH-InformationResponseList-RL-SetupRspTDD
                                                                                             OPTIONAL,
    dsch-LCR-InformationResponse
                                            DSCH-LCR-InformationResponse-RL-SetupRspTDD
                                                                                             OPTIONAL,
                                            USCH-LCR-InformationResponse-RL-SetupRspTDD
    usch-LCR-InformationResponse
                                                                                             OPTIONAL,
    neighbouring-UMTS-CellInformation
                                            Neighbouring-UMTS-CellInformation
                                                                                             OPTIONAL,
    neighbouring-GSM-CellInformation
                                            Neighbouring-GSM-CellInformation
                                                                                             OPTIONAL,
                                            ProtocolExtensionContainer { { RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtIEs} }
    iE-Extensions
                                                                                                                                       OPTIONAL,
    . . .
RL-LCR-InformationResponseList-RL-SetupRspTDD-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-TDD-Information-Response-LCR
                                                     CRITICALITY ignore
                                                                             EXTENSION HSDSCH-TDD-Information-Response
                                                                                                                           PRESENCE optional }.
    . . .
UL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}
UL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD CRITICALITY ignore TYPE UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD
                                                                                                                                       PRESENCE
mandatory }
UL-LCR-CCTrCHInformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD
UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD ::= SEQUENCE {
    cCTrCH-ID
                                CCTrCH-ID,
    ul-DPCH-LCR-Information
                                UL-DPCH-LCR-InformationList-RL-SetupRspTDD
                                                                                 OPTIONAL,
                                ProtocolExtensionContainer { {UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
```

```
UL-LCR-CCTrCHInformationItem-RL-SetupRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
   {ID id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD
                                                                    CRITICALITY ignore
                                                                                                             PRESENCE optional },
                                                                                          EXTENSION UL-SIR
   . . .
UL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { (UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD) }
UL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
     ID id-UL-DPCH-LCR-InformationItem-RL-SetupRspTDD
                                                        CRITICALITY ignore TYPE UL-DPCH-LCR-InformationItem-RL-SetupRspTDD PRESENCE mandatory
UL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   repetitionPeriod
                                  RepetitionPeriod.
   repetitionLength
                                 RepetitionLength,
   tDD-DPCHOffset
                                  TDD-DPCHOffset,
                                  UL-TimeslotLCR-Information,
   uL-TimeslotLCR-Information
                                  ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
UL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-LCR-CCTrCHInformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD}}
DL-LCR-CCTrCHInformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-LCR-InformationListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD
DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
   dl-DPCH-LCR-Information
                              DL-DPCH-LCR-InformationList-RL-SetupRspTDD
                                                                           OPTIONAL,
   iE-Extensions
                              ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-LCR-InformationList-RL-SetupRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD} }
DL-DPCH-LCR-InformationListIEs-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
     ID id-DL-DPCH-LCR-InformationItem-RL-SetupRspTDD
                                                        CRITICALITY ignore TYPE DL-DPCH-LCR-InformationItem-RL-SetupRspTDD PRESENCE mandatory
DL-DPCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE
   repetitionPeriod
                                 RepetitionPeriod,
   repetitionLength
                                  RepetitionLength,
```

```
tDD-DPCHOffset
                                    TDD-DPCHOffset,
    dL-Timeslot-LCR-Information
                                   DL-TimeslotLCR-Information.
    tSTD-Indicator
                                    TSTD-Indicator.
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
DL-DPCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-SetupRspTDD}}
DSCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-SetupRspTDD
                                                           CRITICALITY ignore TYPE DSCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
DSCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-SetupRspTDD
DSCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
                           DSCH-ID,
    dsch-ID
    dSCH-FlowControlInformation
                                   DSCH-FlowControlInformation,
    bindingID
                           BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
    transportFormatManagement TransportFormatManagement,
                           ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DSCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-LCR-InformationResponse-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-SetupRspTDD}}
USCH-LCR-InformationList-RL-SetupRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-SetupRspTDD
                                                           CRITICALITY ignore TYPE USCH-LCR-InformationListIEs-RL-SetupRspTDD PRESENCE mandatory
USCH-LCR-InformationListIEs-RL-SetupRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-SetupRspTDD
USCH-LCR-InformationItem-RL-SetupRspTDD ::= SEQUENCE {
    usch-ID
                                USCH-ID,
                                BindingID OPTIONAL,
    bindingID
    transportLayerAddress
                               TransportLayerAddress
    transportFormatManagement TransportFormatManagement,
                                ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
USCH-LCR-InformationItem-RL-SetupRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
*******************
-- RADIO LINK SETUP FAILURE FDD
   *******************
RadioLinkSetupFailureFDD ::= SEQUENCE {
                                                             {{RadioLinkSetupFailureFDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
                                  ProtocolExtensionContainer {{RadioLinkSetupFailureFDD-Extensions}}
   protocolExtensions
                                                                                                                     OPTIONAL,
    . . .
RadioLinkSetupFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                  CRITICALITY ignore TYPE D-RNTI
                                                                                PRESENCE optional } |
                                                                                              PRESENCE optional
     ID id-CN-PS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-PS-DomainIdentifier
     ID id-CN-CS-DomainIdentifier
                                          CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                              PRESENCE optional }
     ID id-CauseLevel-RL-SetupFailureFDD
                                                     CRITICALITY ignore
                                                                            TYPE CauseLevel-RL-SetupFailureFDD
                                                                                                                  PRESENCE mandatory } |
                                                                                    PRESENCE optional } |
     ID id-UL-SIRTarget
                                      CRITICALITY ignore TYPE UL-SIR
    ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                              PRESENCE optional },
    . . .
CauseLevel-RL-SetupFailureFDD ::= CHOICE {
    generalCause
                       GeneralCauseList-RL-SetupFailureFDD,
                       RLSpecificCauseList-RL-SetupFailureFDD,
   rLSpecificCause
GeneralCauseList-RL-SetupFailureFDD ::= SEOUENCE
    cause
   iE-Extensions
                                              ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureFDD-ExtIEs} }
GeneralCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-SetupFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-SetupFailureFDD
                                                             UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD,
    successful-RL-InformationRespList-RL-SetupFailureFDD
                                                             SuccessfulRL-InformationResponseList-RL-SetupFailureFDD OPTIONAL,
                                              ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-HSDSCH-RNTI
                              CRITICALITY reject
                                                     EXTENSION HSDSCH-RNTI
                                                                                            PRESENCE optional },
    . . .
UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {UnsuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }
```

```
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD
                                                                         CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
SetupFailureFDD
                    PRESENCE mandatory
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID
                                RL-ID,
    cause
                                Cause.
                                    ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {SuccessfulRL-
InformationResponse-RL-SetupFailureFDD-IEs} }
SuccessfulRL-InformationResponse-RL-SetupFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD
                                                                     CRITICALITY ignore TYPE SuccessfulRL-InformationResponse-RL-SetupFailureFDD
    PRESENCE mandatory }
SuccessfulRL-InformationResponse-RL-SetupFailureFDD ::= SEOUENCE
    rL-ID
                                            RL-ID,
    rL-Set-ID
                                            RL-Set-ID,
    uRA-Information
                                            URA-Information
                                                                OPTIONAL
    sAI
                                            SAI,
    qA-Cell
                                            GA-Cell
                                                        OPTIONAL.
                                            GA-AccessPointPosition
    gA-AccessPointPosition
                                                                         OPTIONAL,
    received-total-wide-band-power
                                                                     Received-total-wide-band-power,
    secondary-CCPCH-Info
                                            Secondary-CCPCH-Info
                                                                         OPTIONAL,
    dl-CodeInformation
                                            FDD-DL-CodeInformation,
    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.
    sSDT-SupportIndicator
                                            SSDT-SupportIndicator,
    maxUL-SIR
                                            UL-SIR,
    minUL-SIR
                                            UL-SIR,
    closedlooptimingadjustmentmode
                                            Closedlooptimingadjustmentmode OPTIONAL,
    maximumAllowedULTxPower
                                            MaximumAllowedULTxPower,
    maximumDI.TxPower
                                            DL-Power,
    minimumDLTxPower
                                            DL-Power,
    primaryCPICH-Power
                                            PrimaryCPICH-Power,
    primaryScramblingCode
                                            PrimaryScramblingCode OPTIONAL,
    uL-UARFCN
                                                    UARFCN
                                                                OPTIONAL,
    dL-UARFCN
                                                    UARFCN
                                                                OPTIONAL.
    dSCH-InformationResponse-RL-SetupFailureFDD
                                                    DSCH-InformationResponseList-RL-SetupFailureFDD
                                                                                                         OPTIONAL,
    neighbouring-UMTS-CellInformation
                                            Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                            Neighbouring-GSM-CellInformation OPTIONAL,
    pC-Preamble
                                            PC-Preamble,
    sRB-Delay
                                            SRB-Delay,
```

```
ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                         CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                                 PRESENCE optional } |
     ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore
                                                                       EXTENSION
                                                                                      DL-PowerBalancing-ActivationIndicator
                                                                                                                             PRESENCE
optional}
     ID id-HSDSCH-FDD-Information-Response
                                                CRITICALITY ignore
                                                                       EXTENSION HSDSCH-FDD-Information-Response
                                                                                                                 PRESENCE optional |
                                        CRITICALITY ignore EXTENSION
     ID id-TFCI-PC-SupportIndicator
                                                                      TFCI-PC-SupportIndicator
                                                                                                 PRESENCE optional } |
                             CRITICALITY ignore EXTENSION HCS-Prio
                                                                           PRESENCE optional },
    ID id-HCS-Prio
   . . .
DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
   combining
                                 Combining-RL-SetupFailureFDD,
   nonCombiningOrFirstRL
                             NonCombiningOrFirstRL-RL-SetupFailureFDD
Combining-RL-SetupFailureFDD ::= SEQUENCE {
   rI.-ID
                              RL-ID,
                             ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
CombiningItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-DCH-InformationResponse
                                         CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                 PRESENCE optional },
   . . .
NonCombiningOrFirstRL-RL-SetupFailureFDD ::= SEQUENCE {
   dCH-InformationResponse
                                         DCH-InformationResponse,
   iE-Extensions
                                         ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-InformationResponseList-RL-SetupFailureFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-SetupFailureFDD }}
DSCH-InformationResponseListIEs-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
    RadioLinkSetupFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK SETUP FAILURE TDD
```

. . .

```
__ *********************
RadioLinkSetupFailureTDD ::= SEOUENCE {
    protocolIEs
                                   ProtocolIE-Container
                                                              {{RadioLinkSetupFailureTDD-IEs}},
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkSetupFailureTDD-Extensions}}
                                                                                                                       OPTIONAL.
RadioLinkSetupFailureTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-CauseLevel-RL-SetupFailureTDD CRITICALITY ignore TYPE CauseLevel-RL-SetupFailureTDD
                                                                                                      PRESENCE mandatory } |
    ID id-CriticalityDiagnostics
                                           CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                PRESENCE optional },
    . . .
CauseLevel-RL-SetupFailureTDD ::= CHOICE {
    generalCause
                       GeneralCauseList-RL-SetupFailureTDD,
    rLSpecificCause
                       RLSpecificCauseList-RL-SetupFailureTDD,
GeneralCauseList-RL-SetupFailureTDD ::= SEQUENCE {
                               ProtocolExtensionContainer { { GeneralCauseItem-RL-SetupFailureTDD-ExtIEs} } }
    iE-Extensions
                                                                                                               OPTIONAL,
    . . .
GeneralCauseItem-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-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 RNSAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-RL-InformationRespItem-RL-SetupFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD}
Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureTDD RNSAP-PROTOCOL-IES ::= {
    { ID
                                                                           CRITICALITY ignore
          id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD
                                                                                              TYPE UnsuccessfulRL-InformationResponse-RL-
SetupFailureTDD
                   PRESENCE
                               mandatory
UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD ::= SEQUENCE {
    rL-ID
                               RL-ID,
    cause
                               Cause,
    iE-Extensions
                                   ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs} } OPTIONAL,
```

```
UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkSetupFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
          -- RADIO LINK ADDITION REQUEST FDD
  ****************
RadioLinkAdditionRequestFDD ::= SEQUENCE {
                               ProtocolIE-Container
   protocolIEs
                                                        {{RadioLinkAdditionRequestFDD-IEs}},
                               ProtocolExtensionContainer {{RadioLinkAdditionRequestFDD-Extensions}}
   protocolExtensions
                                                                                                             OPTIONAL,
RadioLinkAdditionRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
                                   CRITICALITY reject TYPE UL-SIR
     ID id-UL-SIRTarget
                                                                             PRESENCE mandatory }
     { ID id-Active-Pattern-Sequence-Information CRITICALITY reject TYPE Active-Pattern-Sequence-Information PRESENCE optional },
RL-InformationList-RL-AdditionRgstFDD
                                          ::= SEOUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-Information-RL-
AdditionRqstFDD-IEs} }
RL-Information-RL-AdditionRqstFDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-AdditionRqstFDD CRITICALITY notify TYPE RL-Information-RL-AdditionRqstFDD
                                                                                                PRESENCE mandatory }
RL-Information-RL-AdditionRgstFDD ::= SEQUENCE {
   rL-ID
                               RL-ID,
   c-ID
                               C-ID,
   frameOffset
                               FrameOffset,
   chipOffset
                               ChipOffset,
   diversityControlField
                               DiversityControlField,
   primaryCPICH-EcNo
                               PrimaryCPICH-EcNo
                                                     OPTIONAL,
   sSDT-CellID
                               SSDT-CellID
                                                 OPTIONAL,
                               TransmitDiversitvIndicator
   transmitDiversityIndicator
                                                            OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstFDD-ExtIEs} } OPTIONAL,
RL-Information-RL-AdditionRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DLReferencePower
                           CRITICALITY ignore
                                                 EXTENSION DL-Power
                                                                          PRESENCE optional |
     ID id-Enhanced-PrimaryCPICH-EcNo
                                              CRITICALITY ignore
                                                                      EXTENSION Enhanced-PrimaryCPICH-EcNo
                                                                                                           PRESENCE optional }
     ID id-RL-Specific-DCH-Info
                               CRITICALITY ignore
                                                        EXTENSION RL-Specific-DCH-Info PRESENCE
     ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional },
```

```
RadioLinkAdditionRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DPC-Mode
                                 CRITICALITY reject
                                                       EXTENSION DPC-Mode
                                                                                  PRESENCE optional } |
    { ID id-Permanent-NAS-UE-Identity
                                                CRITICALITY ignore
                                                                                                              PRESENCE optional },
                                                                          EXTENSION Permanent-NAS-UE-Identity
  -- RADIO LINK ADDITION REQUEST TDD
  ····
RadioLinkAdditionRequestTDD ::= SEQUENCE {
                                                           {{RadioLinkAdditionRequestTDD-IEs}},
   protocolIEs
                                 ProtocolIE-Container
                                 ProtocolExtensionContainer {{RadioLinkAdditionRequestTDD-Extensions}}
   protocolExtensions
                                                                                                                    OPTIONAL,
   . . .
RadioLinkAdditionRequestTDD-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-AdditionRqstTDD CRITICALITY reject TYPE RL-Information-RL-AdditionRqstTDD
                                                                                                      PRESENCE mandatory },
   . . .
RL-Information-RL-AdditionRgstTDD ::= SEQUENCE {
   rL-ID
                                 RL-ID,
   c-ID
                                 C-ID,
   frameOffset
                                 FrameOffset,
   diversityControlField
                                 DiversityControlField,
   primaryCCPCH-RSCP
                                 PrimaryCCPCH-RSCP
                                                        OPTIONAL,
   dL-TimeSlot-ISCP-Info
                                 DL-TimeSlot-ISCP-Info OPTIONAL,
   --for 3.84Mcps TDD only
                                 ProtocolExtensionContainer { {RL-Information-RL-AdditionRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-RL-AdditionRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-DL-Timeslot-ISCP-LCR-Information-RL-AdditionRgstTDD CRITICALITY reject
                                                                                  EXTENSION
                                                                                              DL-TimeSlot-ISCP-LCR-Information
                                                                                                                               PRESENCE
optional }
   --for 1.28Mcps TDD only
   { ID id-RL-Specific-DCH-Info
                                                           EXTENSION RL-Specific-DCH-Info PRESENCE
                                     CRITICALITY ignore
                                                                                                      optional }
   { ID id-DelayedActivation CRITICALITY reject EXTENSION DelayedActivation PRESENCE optional },
   . . .
RadioLinkAdditionRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-Permanent-NAS-UE-Identity
                                                CRITICALITY ignore
                                                                          EXTENSION Permanent-NAS-UE-Identity PRESENCE optional },
   . . .
```

```
-- RADIO LINK ADDITION RESPONSE FDD
  *****************
RadioLinkAdditionResponseFDD ::= SEQUENCE {
    protocolIEs
                                   ProtocolIE-Container
                                                              {{RadioLinkAdditionResponseFDD-IEs}},
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkAdditionResponseFDD-Extensions}}
                                                                                                                           OPTIONAL.
RadioLinkAdditionResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-AdditionRspFDD
                                                           CRITICALITY ignore TYPE RL-InformationResponseList-RL-AdditionRspFDD
                                                                                                                                   PRESENCE
mandatory } |
    { ID id-CriticalityDiagnostics
                                           CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                PRESENCE optional }.
RL-InformationResponseList-RL-AdditionRspFDD
                                                   ::= SEQUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container { {RL-
InformationResponseItemIEs-RL-AdditionRspFDD} }
RL-InformationResponseItemIEs-RL-AdditionRspFDD RNSAP-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,
    uRA-Information
                                   URA-Information
                                                       OPTIONAL,
    sAI
                                   SAI,
   qA-Cell
                                   GA-Cell
                                               OPTIONAL,
                                   GA-AccessPointPosition OPTIONAL,
    gA-AccessPointPosition
    received-total-wide-band-power Received-total-wide-band-power,
    secondary-CCPCH-Info
                                   Secondary-CCPCH-Info
    dl-CodeInformation
                                   DL-CodeInformationList-RL-AdditionRspFDD,
    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,
    minUL-SIR
                                       UL-SIR,
    maxUL-SIR
                                       UL-SIR,
                                       Closedlooptimingadjustmentmode OPTIONAL,
    closedlooptimingadjustmentmode
    maximumAllowedULTxPower
                                       MaximumAllowedULTxPower,
    maximumDLTxPower
                                       DL-Power,
    minimumDLTxPower
                                       DL-Power,
    neighbouring-UMTS-CellInformation
                                       Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                       Neighbouring-GSM-CellInformation OPTIONAL,
    pC-Preamble
                                       PC-Preamble,
    sRB-Delay
                                       SRB-Delay,
    primaryCPICH-Power
                                       PrimaryCPICH-Power,
                                       ProtocolExtensionContainer { {RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
```

```
RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                        CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                               PRESENCE optional } |
     ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore
                                                                      EXTENSION
                                                                                     DL-PowerBalancing-ActivationIndicator
                                                                                                                           PRESENCE
optional}|
     ID id-TFCI-PC-SupportIndicator
                                        CRITICALITY ignore EXTENSION
                                                                      TFCI-PC-SupportIndicator
                                                                                               PRESENCE optional } |
                    CRITICALITY ignore EXTENSION HCS-Prio
    { ID id-HCS-Prio
                                                                          PRESENCE optional },
DL-CodeInformationList-RL-AdditionRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionRspFDD }}
DL-CodeInformationListIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
                                 Combining-RL-AdditionRspFDD,
   combining
   nonCombining
                                 NonCombining-RL-AdditionRspFDD
Combining-RL-AdditionRspFDD ::= SEQUENCE {
   rL-ID
                             ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
CombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-DCH-InformationResponse
                                        CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                                PRESENCE optional },
   . . .
NonCombining-RL-AdditionRspFDD ::= SEQUENCE {
   dCH-InformationResponse
                                        DCH-InformationResponse,
                                            ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
NonCombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK ADDITION RESPONSE TDD
  RadioLinkAdditionResponseTDD ::= SEQUENCE {
                                 ProtocolIE-Container
                                                          {{RadioLinkAdditionResponseTDD-IEs}},
   protocolIEs
                                 ProtocolExtensionContainer {{RadioLinkAdditionResponseTDD-Extensions}}
   protocolExtensions
                                                                                                                    OPTIONAL,
```

```
RadioLinkAdditionResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-AdditionRspTDD
                                                         CRITICALITY ignore TYPE RL-InformationResponse-RL-AdditionRspTDD PRESENCE optional
    -- Mandatory for 3.84Mcps TDD only
    { ID id-CriticalityDiagnostics
                                         CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional },
RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
                                      RL-ID,
    uRA-Information
                                      URA-Information
                                                         OPTIONAL,
    sAI
                                      SAI.
   qA-Cell
                                      GA-Cell
                                                 OPTIONAL,
                                      GA-AccessPointPosition OPTIONAL,
    qA-AccessPointPosition
    ul-TimeSlot-ISCP-Info
                                      UL-TimeSlot-ISCP-Info,
   minUL-SIR
                                      UL-SIR,
   maxUL-SIR
                                      UL-SIR,
   maximumAllowedULTxPower
                                      MaximumAllowedULTxPower,
   maximumDLTxPower
                                      DL-Power,
   minimumDLTxPower
                                      DL-Power,
    pCCPCH-Power
                                      PCCPCH-Power,
    timingAdvanceApplied
                                      TimingAdvanceApplied,
    alphaValue
                                      AlphaValue,
    ul-PhysCH-SF-Variation
                                      UL-PhysCH-SF-Variation,
    synchronisationConfiguration
                                      SynchronisationConfiguration,
    secondary-CCPCH-Info-TDD
                                      Secondary-CCPCH-Info-TDD
                                                                                    OPTIONAL,
    ul-CCTrCHInformation
                                      UL-CCTrCHInformationList-RL-AdditionRspTDD
                                                                                    OPTIONAL,
    dl-CCTrCHInformation
                                      DL-CCTrCHInformationList-RL-AdditionRspTDD
                                                                                    OPTIONAL,
   dCH-Information
                                      DCH-Information-RL-AdditionRspTDD
                                                                                    OPTIONAL,
    dSCH-InformationResponse
                                      DSCH-InformationResponse-RL-AdditionRspTDD
                                                                                    OPTIONAL,
                                      USCH-InformationResponse-RL-AdditionRspTDD
    uSCH-InformationResponse
                                                                                    OPTIONAL,
   neighbouring-UMTS-CellInformation
                                      Neighbouring-UMTS-CellInformation OPTIONAL,
   neighbouring-GSM-CellInformation
                                      Neighbouring-GSM-CellInformation OPTIONAL,
    iE-Extensions
                                      ProtocolExtensionContainer { {RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
RL-InformationResponse-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                                                                                   PRESENCE optional } |
     ID id-GA-CellAdditionalShapes
                                         CRITICALITY ignore EXTENSION
                                                                        GA-CellAdditionalShapes
    { ID id-HCS-Prio
                              CRITICALITY ignore EXTENSION HCS-Prio
                                                                            PRESENCE optional },
UL-CCTrCHInformationList-RL-AdditionRspTDD ::= ProtocoliE-Single-Container {{UL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
UL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE
mandatory }
UL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCHInformationItem-RL-AdditionRspTDD
```

```
UL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE
   cCTrCH-ID
                             CCTrCH-ID.
   ul-DPCH-Information
                                 UL-DPCH-InformationList-RL-AdditionRspTDD
                                                                               OPTIONAL.
   iE-Extensions
                                 ProtocolExtensionContainer { {UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
UL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-InformationListIEs-RL-AdditionRspTDD} }
UL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
     ID id-UL-DPCH-InformationItem-RL-AdditionRspTDD
                                                        CRITICALITY ignore TYPE UL-DPCH-InformationItem-RL-AdditionRspTDD PRESENCE mandatory
UL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod,
                                 RepetitionLength,
   repetitionLength
                                 TDD-DPCHOffset,
   tDD-DPCHOffset
   uL-Timeslot-Information
                                 UL-Timeslot-Information,
   iE-Extensions
                                 ProtocolExtensionContainer { {UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
UL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCHInformationList-RL-AdditionRspTDD ::= Protocolie-Single-Container {{DL-CCTrCHInformationListIEs-RL-AdditionRspTDD}}
DL-CCTrCHInformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE
mandatory }
DL-CCTrCHInformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCHInformationItem-RL-AdditionRspTDD
DL-CCTrCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
   dl-DPCH-Information
                                 DL-DPCH-InformationList-RL-AdditionRspTDD
                                                                               OPTIONAL,
                                  ProtocolExtensionContainer { {DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL.
   iE-Extensions
DL-CCTrCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-InformationListIEs-RL-AdditionRspTDD} }
```

```
DL-DPCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
      ID id-DL-DPCH-InformationItem-RL-AdditionRspTDD
                                                            CRITICALITY ignore TYPE DL-DPCH-InformationItem-RL-AdditionRspTDD PRESENCE mandatory
DL-DPCH-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    repetitionPeriod
                                    RepetitionPeriod,
                                    RepetitionLength,
    repetitionLength
    tDD-DPCHOffset
                                    TDD-DPCHOffset,
    dL-Timeslot-Information
                                    DL-Timeslot-Information,
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
DL-DPCH-InformationItem-RL-AdditionRspTDD-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-Information-RL-AdditionRspTDD ::= SEQUENCE
    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.
                                    ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DCH-Information-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
                    Combining-RL-AdditionRspTDD,
    combining
    nonCombining
                   NonCombining-RL-AdditionRspTDD
Combining-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID
                                ProtocolExtensionContainer { { CombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
CombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DCH-InformationResponse
                                                                                                        PRESENCE optional },
                                            CRITICALITY ignore EXTENSION DCH-InformationResponse
NonCombining-RL-AdditionRspTDD ::= SEOUENCE {
    dCH-InformationResponse
                                DCH-InformationResponse,
    iE-Extensions
                                    ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
NonCombiningItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DSCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-InformationListIEs-RL-AdditionRspTDD}}
DSCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationListIE-RL-AdditionRspTDD
                                                      CRITICALITY ignore TYPE DSCH-InformationListIE-RL-AdditionRspTDD
                                                                                                                           PRESENCE mandatory }
DSCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-AdditionRspTDD
DSCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    dsch-ID
                           DSCH-ID.
    transportFormatManagement TransportFormatManagement,
    dSCH-FlowControlInformation
                                   DSCH-FlowControlInformation.
    diversityIndication
                           DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
                           ProtocolExtensionContainer { {DSCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiversityIndication-RL-AdditionRspTDD2 ::= SEQUENCE {
    bindingID
                           BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
   iE-Extensions
                           ProtocolExtensionContainer { { DiversityIndication-RL-AdditionRspTDD2-ExtIEs} } OPTIONAL,
DiversityIndication-RL-AdditionRspTDD2-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-InformationListIEs-RL-AdditionRspTDD}}
USCH-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
                                                     CRITICALITY ignore TYPE USCH-InformationListIE-RL-AdditionRspTDD
    { ID id-USCH-InformationListIE-RL-AdditionRspTDD
                                                                                                                            PRESENCE mandatory
USCH-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCHInformationItem-RL-AdditionRspTDD
USCHInformationItem-RL-AdditionRspTDD ::= SEQUENCE {
    uSCH-ID
                           USCH-ID,
    transportFormatManagement TransportFormatManagement,
    diversityIndication
                           DiversityIndication-RL-AdditionRspTDD2 OPTIONAL,
    -- diversityIndication present, if CHOICE = nonCombining
    iE-Extensions
                           ProtocolExtensionContainer { {USCHInformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    . . .
USCHInformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RadioLinkAdditionResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-RL-LCR-InformationResponse-RL-AdditionRspTDD
                                                      CRITICALITY ignore
                                                                                        RL-LCR-InformationResponse-RL-AdditionRspTDD
                                                                             EXTENSION
   PRESENCE mandatory },
   -- Mandatory for 1.28Mcps TDD only
RL-LCR-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
   rI.-ID
                             RL-ID,
   uRA-Information
                             URA-Information,
   SAT
                             SAI,
                             GA-Cell
   qA-Cell
                                        OPTIONAL,
   qA-AccessPointPosition
                             GA-AccessPointPosition OPTIONAL,
   ul-TimeSlot-ISCP-LCR-Info
                             UL-TimeSlot-ISCP-LCR-Info,
   maxUL-SIR
                             UL-SIR,
   minUL-SIR
                             UL-SIR,
                             PCCPCH-Power,
   pCCPCH-Power
   maximumAllowedULTxPower
                             MaximumAllowedULTxPower,
   maximumDLTxPower
                             DL-Power,
   minimumDLTxPower
                             DL-Power,
   alphaValue
                             AlphaValue,
   ul-PhysCH-SF-Variation
                             UL-PhysCH-SF-Variation,
   synchronisationConfiguration
                                    SynchronisationConfiguration,
   secondary-LCR-CCPCH-Info-TDD
                                    Secondary-LCR-CCPCH-Info-TDD
                                                                                    OPTIONAL,
   ul-CCTrCH-LCR-Information
                                    UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                    OPTIONAL,
   dl-CCTrCH-LCR-Information
                                    DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                    OPTIONAL,
   dCH-InformationResponse
                                    DCH-InformationResponseList-RL-AdditionRspTDD
                                                                                    OPTIONAL,
   dsch-LCR-InformationResponse
                                    DSCH-LCR-InformationResponse-RL-AdditionRspTDD
                                                                                    OPTIONAL,
                                        USCH-LCR-InformationResponse-RL-AdditionRspTDD
   usch-LCR-InformationResponse
                                                                                       OPTIONAL,
   neighbouring-UMTS-CellInformation
                                            Neighbouring-UMTS-CellInformation
                                                                                        OPTIONAL.
   neighbouring-GSM-CellInformation
                                            Neighbouring-GSM-CellInformation
                                                                                     OPTIONAL,
   iE-Extensions
                                            OPTIONAL,
   . . .
RL-LCR-InformationResponseList-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD }}
UL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
UL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD
UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   cCTrCH-ID
                             CCTrCH-ID,
   ul-DPCH-LCR-Information
                                    UL-DPCH-LCR-InformationList-RL-AdditionRspTDD
                                                                                    OPTIONAL,
                                 ProtocolExtensionContainer { {UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
```

```
UL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} }
UL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                            CRITICALITY ignore TYPE UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD PRESENCE
mandatory }
UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod,
                                 RepetitionLength,
   repetitionLength
   tDD-DPCHOffset
                                 TDD-DPCHOffset,
   uL-TimeslotLCR-Information
                                 UL-TimeslotLCR-Information,
                                 ProtocolExtensionContainer { {UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
UL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD}}
DL-CCTrCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
DL-CCTrCH-LCR-InformationListIE-RL-AdditionRspTDD ::= SEOUENCE (SIZE (1..maxNrOfCCTrCHsLCR)) OF DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD
DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   cCTrCH-ID
                              CCTrCH-ID,
                             DL-DPCH-LCR-InformationList-RL-AdditionRspTDD
   dl-DPCH-LCR-Information
                                                                              OPTIONAL,
   iE-Extensions
                              ProtocolExtensionContainer { {DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
DL-DPCH-LCR-InformationList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container { {DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD} } }
DL-DPCH-LCR-InformationListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD
                                                            CRITICALITY ignore TYPE DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD PRESENCE
mandatory }
```

```
DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   repetitionPeriod
                                   RepetitionPeriod,
   repetitionLength
                                   RepetitionLength.
    tDD-DPCHOffset
                                   TDD-DPCHOffset,
    dL-TimeslotLCR-Information
                                   DL-TimeslotLCR-Information,
    tSTD-Indicator
                                   TSTD-Indicator,
   iE-Extensions
                                   ProtocolExtensionContainer { {DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
DL-DPCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DCH-InformationResponseListIEs-RL-AdditionRspTDD}}
DCH-InformationResponseListIEs-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    TYPE DCH-InformationResponse PRESENCE mandatory }
DSCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{DSCH-LCR-InformationList-RL-AdditionRspTDD}}
DSCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-LCR-InformationListIEs-RL-AdditionRspTDD
                                                              CRITICALITY ignore TYPE DSCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
DSCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHsLCR)) OF DSCH-LCR-InformationItem-RL-AdditionRspTDD
DSCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   dsch-ID
                          DSCH-ID.
   dSCH-FlowControlInformation
                                   DSCH-FlowControlInformation,
   bindingID
                          BindingID OPTIONAL,
    transportLayerAddress TransportLayerAddress OPTIONAL,
    transportFormatManagement TransportFormatManagement,
   iE-Extensions
                           ProtocolExtensionContainer { {DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
DSCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-LCR-InformationResponse-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{USCH-LCR-InformationList-RL-AdditionRspTDD}}
USCH-LCR-InformationList-RL-AdditionRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-USCH-LCR-InformationListIEs-RL-AdditionRspTDD
                                                              CRITICALITY ignore TYPE USCH-LCR-InformationListIEs-RL-AdditionRspTDD PRESENCE
mandatory }
USCH-LCR-InformationListIEs-RL-AdditionRspTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHsLCR)) OF USCH-LCR-InformationItem-RL-AdditionRspTDD
USCH-LCR-InformationItem-RL-AdditionRspTDD ::= SEQUENCE {
   usch-ID
                               USCH-ID,
```

. . .

```
TransportFormatManagement,
    transportFormatManagement
   diversityIndication
                              DiversityIndication-RL-AdditionRspTDD2
                                                                        OPTIONAL.
   iE-Extensions
                              ProtocolExtensionContainer { {USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
USCH-LCR-InformationItem-RL-AdditionRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
        -- RADIO LINK ADDITION FAILURE FDD
  ****************
RadioLinkAdditionFailureFDD ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{RadioLinkAdditionFailureFDD-IEs}},
                                  ProtocolExtensionContainer {{RadioLinkAdditionFailureFDD-Extensions}}
   protocolExtensions
                                                                                                                      OPTIONAL,
RadioLinkAdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-CauseLevel-RL-AdditionFailureFDD
                                                             CRITICALITY
                                                                            ignore
                                                                                             TYPE CauseLevel-RL-AdditionFailureFDD
           PRESENCE mandatory } |
    { ID id-CriticalityDiagnostics
                                         CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional },
CauseLevel-RL-AdditionFailureFDD ::= CHOICE {
   generalCause
                      GeneralCauseList-RL-AdditionFailureFDD,
                      RLSpecificCauseList-RL-AdditionFailureFDD,
   rLSpecificCause
    . . .
GeneralCauseList-RL-AdditionFailureFDD ::= SEOUENCE {
   cause
                                             ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs} }
   iE-Extensions
                                                                                                                               OPTIONAL,
GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-AdditionFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                 UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,
    successful-RL-InformationRespList-RL-AdditionFailureFDD
                                                                 SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD OPTIONAL,
   iE-Extensions
                                             ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }
                                                                                                                                  OPTIONAL,
    . . .
RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEOUENCE (SIZE (1..maxNrOfRLs-1)) OF ProtocolIE-Single-Container {
{UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs} }
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD
                                                                       CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureFDD
                        PRESENCE mandatory }
UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
   rL-ID
                                    RL-ID,
    cause
                                    Cause,
    iE-Extensions
                                    ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL.
UnsuccessfulrL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfRLs-2)) OF ProtocolIE-Single-Container { SuccessfulRL-
InformationResponse-RL-AdditionFailureFDD-IEs} }
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD
                                                                        CRITICALITY ignore TYPE SuccessfulRL-InformationResponse-RL-
AdditionFailureFDD
                        PRESENCE mandatory }
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID
                                        RL-ID,
    rL-Set-ID
                                        RL-Set-ID,
    uRA-Information
                                        URA-Information
                                                            OPTIONAL,
    sAI
                                        SAI,
    qA-Cell
                                        GA-Cell
                                                    OPTIONAL,
    gA-AccessPointPosition
                                        GA-AccessPointPosition
                                                                    OPTIONAL,
    received-total-wide-band-power
                                        Received-total-wide-band-power,
                                        Secondary-CCPCH-Info
    secondary-CCPCH-Info
                                                                    OPTIONAL,
    dl-CodeInformation
                                        DL-CodeInformationList-RL-AdditionFailureFDD,
    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,
    minUL-SIR
                                        UL-SIR,
    maxUL-SIR
                                        UL-SIR,
    closedlooptimingadjustmentmode
                                        Closedlooptimingadjustmentmode OPTIONAL,
    maximumAllowedULTxPower
                                        MaximumAllowedULTxPower,
    maximumDLTxPower
                                        DL-Power,
    minimumDLTxPower
                                        DL-Power,
    neighbouring-UMTS-CellInformation
                                        Neighbouring-UMTS-CellInformation OPTIONAL,
    neighbouring-GSM-CellInformation
                                        Neighbouring-GSM-CellInformation OPTIONAL,
    primaryCPICH-Power
                                        PrimaryCPICH-Power,
    pC-Preamble
                                        PC-Preamble,
    sRB-Delay
                                        SRB-Delay,
```

```
ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
     ID id-GA-CellAdditionalShapes
                                       CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                              PRESENCE optional } |
    ID id-DL-PowerBalancing-ActivationIndicator CRITICALITY ignore
                                                                     EXTENSION
                                                                                   DL-PowerBalancing-ActivationIndicator
                                                                                                                         PRESENCE
optional}
     ID id-TFCI-PC-SupportIndicator
                                       CRITICALITY ignore EXTENSION TFCI-PC-SupportIndicator
                                                                                              PRESENCE optional } |
                      CRITICALITY ignore EXTENSION HCS-Prio
                                                                        PRESENCE optional },
    ID id-HCS-Prio
DL-CodeInformationList-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionFailureFDD }}
DL-CodeInformationListIEs-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
   combining
                                Combining-RL-AdditionFailureFDD,
   nonCombining
                                NonCombining-RL-AdditionFailureFDD
Combining-RL-AdditionFailureFDD ::= SEOUENCE {
   rL-ID
                             RL-ID,
   iE-Extensions
                             ProtocolExtensionContainer { { CombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
CombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
   { ID id-DCH-InformationResponse
                                       CRITICALITY ignore EXTENSION DCH-InformationResponse
                                                                                              PRESENCE optional },
   . . .
NonCombining-RL-AdditionFailureFDD ::= SEQUENCE {
   dCH-InformationResponse
                            DCH-InformationResponse,
                                           ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
NonCombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ********************
-- RADIO LINK ADDITION FAILURE TDD
__ **********************
```

```
RadioLinkAdditionFailureTDD ::= SEQUENCE {
    protocolIEs
                                    ProtocolIE-Container
                                                               {{RadioLinkAdditionFailureTDD-IEs}},
    protocolExtensions
                                    ProtocolExtensionContainer {{RadioLinkAdditionFailureTDD-Extensions}}
                                                                                                                            OPTIONAL,
RadioLinkAdditionFailureTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-CauseLevel-RL-AdditionFailureTDD
                                               CRITICALITY ignore TYPE CauseLevel-RL-AdditionFailureTDD PRESENCE mandatory }
     ID id-CriticalityDiagnostics
                                           CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                  PRESENCE optional },
CauseLevel-RL-AdditionFailureTDD ::= CHOICE {
                       GeneralCauseList-RL-AdditionFailureTDD,
    generalCause
    rLSpecificCause
                        RLSpecificCauseList-RL-AdditionFailureTDD,
GeneralCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    cause
                                ProtocolExtensionContainer { { GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs} }
    iE-Extensions
                                                                                                                   OPTIONAL,
GeneralCauseItem-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-AdditionFailureTDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD
                                                                Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD,
                                                                ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIEs} }
    iE-Extensions
        OPTIONAL,
    . . .
RLSpecificCauseItem-RL-AdditionFailureTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
Unsuccessful-RL-InformationRespItem-RL-AdditionFailureTDD ::= ProtocolIE-Single-Container { {Unsuccessful-RL-InformationRespItemIE-RL-
AdditionFailureTDD } }
Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureTDD RNSAP-PROTOCOL-IES ::= {
          id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD CRITICALITY ignore TYPE UnsuccessfulRL-InformationResponse-RL-
AdditionFailureTDD PRESENCE mandatory}
UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD ::= SEQUENCE {
    rL-ID
                                RL-ID,
    cause
                                Cause,
    iE-Extensions
                                ProtocolExtensionContainer { {UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD-ExtIEs} } OPTIONAL,
```

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```
UnsuccessfulrL-InformationResponse-RL-AdditionFailureTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkAdditionFailureTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- RADIO LINK DELETION REQUEST
  RadioLinkDeletionRequest ::= SEOUENCE {
                                              {{RadioLinkDeletionRequest-IEs}},
   protocolIEs
                          ProtocolIE-Container
                          ProtocolExtensionContainer {{RadioLinkDeletionRequest-Extensions}}
  protocolExtensions
                                                                                        OPTIONAL,
RadioLinkDeletionRequest-IEs RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory },
   . . .
                               ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-DeletionRgst-
RL-InformationList-RL-DeletionRqst
IEs} }
RL-Information-RL-DeletionRqst-IEs RNSAP-PROTOCOL-IES ::= {
   RL-Information-RL-DeletionRgst ::= SEQUENCE {
                       RL-ID,
  iE-Extensions
                       ProtocolExtensionContainer { {RL-Information-RL-DeletionRqst-ExtIEs} } OPTIONAL,
RL-Information-RL-DeletionRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkDeletionRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- RADIO LINK DELETION RESPONSE
__ ********************************
RadioLinkDeletionResponse ::= SEQUENCE {
```

```
{{RadioLinkDeletionResponse-IEs}},
   protocolIEs
                                   ProtocolIE-Container
   protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkDeletionResponse-Extensions}}
                                                                                                                       OPTIONAL.
RadioLinkDeletionResponse-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                               PRESENCE optional },
RadioLinkDeletionResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION PREPARE FDD
     ***************
RadioLinkReconfigurationPrepareFDD ::= SEQUENCE {
                                                              {{RadioLinkReconfigurationPrepareFDD-IEs}},
   protocolIEs
                                   ProtocolIE-Container
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareFDD-Extensions}}
   protocolExtensions
                                                                                                                                OPTIONAL,
    . . .
RadioLinkReconfigurationPrepareFDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedQueuingTime
                                      CRITICALITY reject TYPE AllowedOueuingTime
                                                                                             PRESENCE optional } |
     ID id-UL-DPCH-Information-RL-ReconfPrepFDD
                                                                                                                            PRESENCE optional }
                                                          CRITICALITY reject TYPE UL-DPCH-Information-RL-ReconfPrepFDD
     ID id-DL-DPCH-Information-RL-ReconfPrepFDD
                                                          CRITICALITY reject TYPE DL-DPCH-Information-RL-ReconfPrepFDD
                                                                                                                            PRESENCE optional }
     ID id-FDD-DCHs-to-Modify
                                   CRITICALITY reject TYPE FDD-DCHs-to-Modify
                                                                                  PRESENCE optional
                            CRITICALITY reject TYPE DCH-FDD-Information
     ID id-DCHs-to-Add-FDD
                                                                                  PRESENCE optional
     ID id-DCH-DeleteList-RL-ReconfPrepFDD
                                              CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepFDD
                                                                                                           PRESENCE optional }
                                                                                                        PRESENCE optional }
     ID id-DSCH-Modify-RL-ReconfPrepFDD
                                              CRITICALITY reject TYPE DSCH-Modify-RL-ReconfPrepFDD
     ID id-DSCHs-to-Add-FDD
                                       CRITICALITY reject TYPE DSCH-FDD-Information
                                                                                             PRESENCE optional } |
                                              CRITICALITY reject TYPE DSCH-Delete-RL-ReconfPrepFDD
                                                                                                        PRESENCE optional }
     ID id-DSCH-Delete-RL-ReconfPrepFDD
     ID id-RL-InformationList-RL-ReconfPrepFDD CRITICALITY reject TYPE RL-InformationList-RL-ReconfPrepFDD PRESENCE optional }
     ID id-Transmission-Gap-Pattern-Sequence-Information CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE
optional },
UL-DPCH-Information-RL-ReconfPrepFDD ::= SEOUENCE {
   ul-ScramblingCode
                                   UL-ScramblingCode
                                                          OPTIONAL,
   ul-SIRTarget
                                                           OPTIONAL,
   minUL-ChannelisationCodeLength MinUL-ChannelisationCodeLength OPTIONAL,
   maxNrOfUL-DPDCHs
                                   MaxNrOfUL-DPCHs
                                                          OPTIONAL
    -- This IE shall be present if minUL-ChannelisationCodeLength equals to 4 --,
                                   PunctureLimit
   ul-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.
                                  ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
   t FCS
                                         OPTIONAL,
   dl-DPCH-SlotFormat
                                 DL-DPCH-SlotFormat
                                                        OPTIONAL,
   nrOfDLchannelisationcodes
                                 NrOfDLchannelisationcodes OPTIONAL.
   tFCI-SignallingMode
                                 TFCI-SignallingMode
                                                        OPTIONAL,
   tFCI-Presence
                                 TFCI-Presence
                                                        OPTIONAL
   -- This IE shall be present if DL DPCH Slot Format IE is from 12 to 16 --,
   multiplexingPosition
                                 MultiplexingPosition
                                                            OPTIONAL,
                                 LimitedPowerIncrease
   limitedPowerIncrease
                                                            OPTIONAL,
   iE-Extensions
                                 ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
DL-DPCH-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-SplitType CRITICALITY reject EXTENSION SplitType PRESENCE optional }
   . . .
DCH-DeleteList-RL-ReconfPrepFDD
                                         ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD
DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
   dch-td
                                  DCH-ID,
                                  ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-Modify-RL-ReconfPrepFDD ::= SEQUENCE {
                                     DSCH-ModifyInfo-RL-ReconfPrepFDD
   dSCH-Information
                                                                     OPTIONAL,
   pdSCH-RL-ID
                                     RL-ID
                                                                OPTIONAL,
   tFCS
                                     TFCS
                                                                OPTIONAL,
                                     ProtocolExtensionContainer { {DSCH-Modify-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DSCH-Modify-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-EnhancedDSCHPCIndicator
                                         CRITICALITY ignore EXTENSION EnhancedDSCHPCIndicator PRESENCE optional |
   { ID id-EnhancedDSCHPC
                                         CRITICALITY ignore EXTENSION EnhancedDSCHPC
                                                                                      PRESENCE conditional \},
   -- The IE shall be present if the Enhanced DSCH PC Indicator IE is set to "Enhanced DSCH PC Active in the UE".
```

```
DSCH-ModifyInfo-RL-ReconfPrepFDD ::= SEOUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyInformationItem-RL-ReconfPrepFDD
DSCH-ModifyInformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dSCH-ID
                                        DSCH-ID,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                        OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                        OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                        OPTIONAL,
                                                                        OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
                                        ProtocolExtensionContainer { {DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                    CRITICALITY ignore EXTENSION TrafficClass
                                                                                            PRESENCE optional } |
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                BindingID
                                                                                                 PRESENCE
                                                                                                                     optional }
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
                                                                                                           PRESENCE
                                                                                                                       optional },
    -- Shall be ignored if bearer establishment with ALCAP.
DSCH-Delete-RL-ReconfPrepFDD ::= SEQUENCE
    dSCH-Information
                                        DSCH-Info-Delete-RL-ReconfPrepFDD,
    iE-Extensions
                                        ProtocolExtensionContainer { {DSCH-Delete-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
DSCH-Delete-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-Info-Delete-RL-ReconfPrepFDD ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCH-DeleteInformationItem-RL-REconfPrepFDD
DSCH-DeleteInformationItem-RL-REconfPrepFDD ::= SEOUENCE {
    dSCH-ID
    iE-Extensions
                                    ProtocolExtensionContainer { {DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
RL-InformationList-RL-ReconfPrepFDD
                                            ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-ReconfPrepFDD-
IEs} }
RL-Information-RL-ReconfPrepFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-Information-RL-ReconfPrepFDD
                                             CRITICALITY reject TYPE RL-Information-RL-ReconfPrepFDD
                                                                                                              PRESENCE mandatory
```

```
RL-Information-RL-ReconfPrepFDD ::= SEQUENCE {
   rL-ID
                             RL-ID.
    sSDT-Indication
                               SSDT-Indication
                                                       OPTIONAL.
    sSDT-CellIdentity
                                   SSDT-CellID
                                                  OPTIONAL
    -- The IE shall be present if the sSDT-Indication is set to 'sSDT-active-in-the-UE' --,
    transmitDiversityIndicator
                                   TransmitDiversityIndicator
                                                                   OPTIONAL,
    -- This IE shall be present if Diversity Mode IE is present in UL DPCH Information IE and is not equal to "none"
                                   ProtocolExtensionContainer { {RL-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    iE-Extensions
RL-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-SSDT-CellIDforEDSCHPC CRITICALITY ignore EXTENSION SSDT-CellID
                                                                                  PRESENCE conditional }
    -- This IE shall be present if Enhanced DSCH PC IE is present in either the DSCHs to Modify IE or the DSCHs to Add IE.
    { ID id-DLReferencePower
                                   CRITICALITY ignore EXTENSION DL-Power
                                                                                          PRESENCE optional } |
     ID id-RL-Specific-DCH-Info
                                       CRITICALITY ignore
                                                              EXTENSION RL-Specific-DCH-Info PRESENCE
                                                                                                            optional }
    { ID id-DL-DPCH-TimingAdjustment CRITICALITY reject EXTENSION DL-DPCH-TimingAdjustment PRESENCE optional },
RadioLinkReconfigurationPrepareFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-HSDSCH-Information-to-Modify
                                                                           EXTENSION HSDSCH-Information-to-Modify
                                                                                                                     PRESENCE optional } |
                                                   CRITICALITY reject
     ID id-HSDSCH-FDD-Information-to-Add
                                               CRITICALITY reject
                                                                       EXTENSION HSDSCH-FDD-Information
                                                                                                                       PRESENCE optional }
     ID id-HSDSCH-FDD-Information-to-Delete
                                                   CRITICALITY reject EXTENSION HSDSCH-DeleteList-RL-ReconfPrepFDD PRESENCE optional |
     ID id-HSPDSCH-RL-ID
                                               CRITICALITY reject
                                                                      EXTENSION RL-ID
                                                                                                  PRESENCE optional },
    . . .
HSDSCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-DeleteItem-RL-ReconfPrepFDD
HSDSCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                                   HSDSCH-MACdFlow-ID,
    iE-Extensions
                                                   ProtocolExtensionContainer { { HSDSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} }
HSDSCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION PREPARE TDD
RadioLinkReconfigurationPrepareTDD ::= SEOUENCE {
    protocolIEs
                                   ProtocolIE-Container
                                                              {{RadioLinkReconfigurationPrepareTDD-IEs}},
    protocolExtensions
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationPrepareTDD-Extensions}}
                                                                                                                                 OPTIONAL.
RadioLinkReconfigurationPrepareTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime
                                       CRITICALITY reject TYPE AllowedQueuingTime
                                                                                              PRESENCE optional
```

```
ID id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD CRITICALITY notify TYPE UL-CCTrCH-InformationAddList-RL-ReconfPrepTDDPRESENCE optional
     ID id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD PRESENCE
optional } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD PRESENCE
optional } |
     ID id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD CRITICALITY notify TYPE DL-CCTrCH-InformationAddList-RL-ReconfPrepTDDPRESENCE optional
     ID id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD PRESENCE
optional } |
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                                               CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD PRESENCE
optional
     ID id-TDD-DCHs-to-Modify
                                   CRITICALITY reject TYPE TDD-DCHs-to-Modify
                                                                                   PRESENCE optional
     ID id-DCHs-to-Add-TDD
                               CRITICALITY reject TYPE DCH-TDD-Information
                                                                                   PRESENCE optional
     ID id-DCH-DeleteList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepTDD
                                                                                                            PRESENCE optional }
     ID id-DSCH-ModifyList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE DSCH-ModifyList-RL-ReconfPrepTDD
                                                                                                            PRESENCE optional }
     ID id-DSCHs-to-Add-TDD
                                   CRITICALITY reject TYPE DSCH-TDD-Information
                                                                                          PRESENCE optional }
     ID id-DSCH-DeleteList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE DSCH-DeleteList-RL-ReconfPrepTDD
                                                                                                            PRESENCE optional
     ID id-USCH-ModifyList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE USCH-ModifyList-RL-ReconfPrepTDD
                                                                                                            PRESENCE optional
     ID id-USCHs-to-Add
                               CRITICALITY reject TYPE USCH-Information
                                                                                   PRESENCE optional } |
     ID id-USCH-DeleteList-RL-ReconfPrepTDD
                                               CRITICALITY reject TYPE USCH-DeleteList-RL-ReconfPrepTDD
                                                                                                            PRESENCE optional },
    . . .
UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                   ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
AddInformation-RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD CRITICALITY notify TYPE UL-CCTrCH-AddInformation-RL-ReconfPrepTDD PRESENCE mandatory
UL-CCTrCH-AddInformation-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID
                               CCTrCH-ID,
    tFCS
                               TFCS,
    tFCI-Coding
                               TFCI-Coding,
    punctureLimit
                                   PunctureLimit,
    iE-Extensions
                                   ProtocolExtensionContainer { {UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL.
UL-CCTrCH-AddInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-UL-SIRTarget
                               CRITICALITY reject
                                                       EXTENSION
                                                                       UL-SIR
                                                                                   PRESENCE optional },
    -- This IE shall be mandatory for 1.28Mcps TDD, not applicable for 3.84Mcps TDD.
UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                                       ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD CRITICALITY notify TYPE UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD PRESENCE
mandatory }
```

```
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                         CCTrCH-ID.
                         TFCS
   t.FCS
                                     OPTIONAL.
   tFCI-Coding
                         TFCI-Coding
                                               OPTIONAL.
   punctureLimit
                           PunctureLimit
                              ProtocolExtensionContainer { {UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-UL-SIRTarget
                       CRITICALITY reject
                                                                        PRESENCE optional },
                                               EXTENSION
                                                             III.-STR
   -- This IE shall be applicable for 1.28Mcps TDD only.
UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                               ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
DeleteInformation-RL-ReconfPrepTDD-IEs} }
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD ::= SEOUENCE {
   cCTrCH-ID
                           CCTrCH-ID,
   iE-Extensions
                              ProtocolExtensionContainer { {UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
                                           ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
AddInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                           CCTrCH-ID,
   t FCS
                           TFCS,
                           TFCI-Coding,
   tFCI-Coding
   punctureLimit
                             PunctureLimit,
   cCTrCH-TPCList
                              CCTrCH-TPCAddList-RL-ReconfPrepTDD OPTIONAL,
   iE-Extensions
                              ProtocolExtensionContainer { {DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
CCTrCH-TPCAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCAddItem-RL-ReconfPrepTDD
CCTrCH-TPCAddItem-RL-ReconfPrepTDD
                             ::= SEOUENCE {
   cCTrCH-ID
                              CCTrCH-ID.
                              ProtocolExtensionContainer { { CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD
                                          ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
ModifyInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
                        CCTrCH-ID,
   tFCS
                         TFCS
                                     OPTIONAL,
                         TFCI-Coding
   tFCI-Coding
                                               OPTIONAL,
                              PunctureLimit
   punctureLimit
                                                      OPTIONAL.
                              CCTrCH-TPCModifyList-RL-ReconfPrepTDD
   cCTrCH-TPCList
                                                                    OPTIONAL,
   iE-Extensions
                              ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
   cCTrCH-ID
   iE-Extensions
                              ProtocolExtensionContainer { { CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
CCTrCH-TPCModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD
                                              ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
DeleteInformation-RL-ReconfPrepTDD-IEs} }
DL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
```

```
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 RNSAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfPrepTDD
                                            ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD
DCH-DeleteItem-RL-ReconfPrepTDD ::= SEOUENCE {
    dCH-ID
    iE-Extensions
                                ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    . . .
DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DSCH-ModifyList-RL-ReconfPrepTDD ::= SEOUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyItem-RL-ReconfPrepTDD
DSCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dsch-ID
                                        DSCH-ID
    dl-ccTrCHID
                                        CCTrCH-ID
                                                                         OPTIONAL,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                         OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                         OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                        OPTIONAL,
                                                                         OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
                                    ProtocolExtensionContainer { {DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL.
    iE-Extensions
DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                    CRITICALITY ignore EXTENSION TrafficClass
                                                                                             PRESENCE optional } |
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                 BindingID
                                                                                                          PRESENCE
                                                                                                                    optional }
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                                                                                                        optional },
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
                                                                                                            PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
    . . .
DSCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-DeleteItem-RL-ReconfPrepTDD
DSCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dSCH-ID
    iE-Extensions
                                    ProtocolExtensionContainer { {DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
```

```
DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-ModifyList-RL-ReconfPrepTDD ::= SEOUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-ModifyItem-RL-ReconfPrepTDD
USCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    11SCH-TD
                                        USCH-ID,
    ul-ccTrCHID
                                        CCTrCH-ID
                                                                        OPTIONAL,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr OPTIONAL,
    transportFormatSet
                                        TransportFormatSet
                                                                        OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                        OPTIONAL,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                        OPTIONAL,
                                                                        OPTIONAL,
                                        TransportBearerRequestIndicator,
    transportBearerRequestIndicator
                                        RB-Info
    rb-Info
                                                                        OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { {USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    . . .
USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                   CRITICALITY ignore EXTENSION TrafficClass
                                                                                            PRESENCE optional }
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                BindingID
                                                                                                          PRESENCE
                                                                                                                       optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                                TransportLayerAddress
                                                                                                                       optional },
                                                                    EXTENSION
                                                                                                           PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
USCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-DeleteItem-RL-ReconfPrepTDD
USCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    11SCH-TD
   iE-Extensions
                                    ProtocolExtensionContainer { {USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL.
USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationPrepareTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD CRITICALITY ignore
                                                                        EXTENSION PrimaryCCPCH-RSCP PRESENCE optional } |
     ID id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD CRITICALITY ignore
                                                                            EXTENSION DL-TimeSlot-ISCP-Info PRESENCE optional }
                                                                                        EXTENSION DL-TimeSlot-ISCP-LCR-Information PRESENCE
     ID id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD CRITICALITY ignore
optional
     ID id-HSDSCH-Information-to-Modify
                                                    CRITICALITY reject
                                                                            EXTENSION HSDSCH-Information-to-Modify
                                                                                                                       PRESENCE optional } |
     ID id-HSDSCH-TDD-Information-to-Add
                                                CRITICALITY reject
                                                                        EXTENSION HSDSCH-TDD-Information
                                                                                                                          PRESENCE optional }
     ID id-HSDSCH-TDD-Information-to-Delete
                                                                            EXTENSION HSDSCH-DeleteList-RL-ReconfPrepTDD PRESENCE optional | |
                                                    CRITICALITY reject
     ID id-HSPDSCH-RL-ID
                                                CRITICALITY reject
                                                                        EXTENSION RL-ID
                                                                                                     PRESENCE optional },
    . . .
```

```
HSDSCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-DeleteItem-RL-ReconfPrepTDD
HSDSCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
   hSDSCH-MACdFlow-ID
                                             HSDSCH-MACdFlow-ID,
   iE-Extensions
                                              ProtocolExtensionContainer { { HSDSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} }
HSDSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION READY FDD
RadioLinkReconfigurationReadyFDD ::= SEQUENCE {
                                                        {{RadioLinkReconfigurationReadyFDD-IEs}},
   protocolIEs
                               ProtocolIE-Container
   protocolExtensions
                               ProtocolExtensionContainer {{RadioLinkReconfigurationReadyFDD-Extensions}}
                                                                                                                 OPTIONAL,
   . . .
RadioLinkReconfigurationReadyFDD-IES RNSAP-PROTOCOL-IES ::= {
   PRESENCE
optional } |
   { ID id-CriticalityDiagnostics
                                      CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                      PRESENCE optional },
   . . .
                                             ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-
RL-InformationResponseList-RL-ReconfReadyFDD
RL-ReconfReadyFDD-IEs } }
RL-InformationResponse-RL-ReconfReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
RL-InformationResponseItem-RL-ReconfReadyFDD ::= SEQUENCE
   rL-ID
                               RL-ID,
   max-UL-SIR
                               UL-SIR
                                             OPTIONAL,
   min-UL-SIR
                               UL-SIR
                                             OPTIONAL,
   maximumDLTxPower
                               DL-Power
                                             OPTIONAL,
   minimumDLTxPower
                               DL-Power
                                             OPTIONAL,
   secondary-CCPCH-Info
                               Secondary-CCPCH-Info
                                                        OPTIONAL,
   dl-CodeInformationList
                               DL-CodeInformationList-RL-ReconfReadyFDD
   dCHInformationResponse
                               DCH-InformationResponseList-RL-ReconfReadyFDD OPTIONAL,
   dSCHsToBeAddedOrModified
                               DSCHsToBeAddedOrModified-RL-ReconfReadyFDD
                                                                          OPTIONAL,
                               ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
ID id-DL-PowerBalancing-UpdatedIndicator CRITICALITY ignore
                                                                                DL-PowerBalancing-UpdatedIndicator
                                                                                                                    PRESENCE optional } |
                                                                  EXTENSION
     ID id-HSDSCH-FDD-Information-Response
                                               CRITICALITY ignore
                                                                     EXTENSION HSDSCH-FDD-Information-Response
                                                                                                               PRESENCE optional },
DL-CodeInformationList-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfReadyFDD }}
DL-CodeInformationListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
DCH-InformationResponseList-RL-ReconfReadyFDD
                                                      ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyFDD} }
DCH-InformationResponseListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    ID id-DCH-InformationResponse
                                    CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                        PRESENCE mandatory
DSCHsToBeAddedOrModified-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container { {DSCHsToBeAddedOrModifiedIEs-RL-ReconfReadyFDD} }
DSCHsToBeAddedOrModifiedIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCHsToBeAddedOrModified-FDD
                                        CRITICALITY ignore TYPE DSCH-FDD-InformationResponse
                                                                                            PRESENCE mandatory }
RadioLinkReconfigurationReadvFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-DSCH-RNTI
                                CRITICALITY ignore
                                                          EXTENSION DSCH-RNTI
                                                                                PRESENCE optional }
    { ID id-HSDSCH-RNTI
                             CRITICALITY reject
                                                                                        PRESENCE optional },
                                                   EXTENSION HSDSCH-RNTI
        -- RADIO LINK RECONFIGURATION READY TDD
  RadioLinkReconfigurationReadyTDD ::= SEQUENCE {
   protocolIEs
                                 ProtocolIE-Container
                                                          {{RadioLinkReconfigurationReadyTDD-IEs}},
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationReadyTDD-Extensions}}
   protocolExtensions
                                                                                                                      OPTIONAL,
RadioLinkReconfigurationReadyTDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfReadyTDD
                         CRITICALITY ignore TYPE RL-InformationResponse-RL-ReconfReadyTDD
                                                                                       PRESENCE optional
   { ID id-CriticalityDiagnostics
                                 CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                         PRESENCE optional \}.
RL-InformationResponse-RL-ReconfReadyTDD ::= SEQUENCE {
   rL-ID
                                 RL-ID,
   max-UL-SIR
                                 UL-SIR
                                               OPTIONAL,
   min-UL-SIR
                                 UL-SIR
                                               OPTIONAL,
   maximumDLTxPower
                                 DL-Power
                                               OPTIONAL,
   minimumDLTxPower
                                 DL-Power
                                               OPTIONAL,
```

```
secondary-CCPCH-Info-TDD
                                 Secondary-CCPCH-Info-TDD
                                                           OPTIONAL,
   ul-CCTrCH-Information
                                 UL-CCTrCH-InformationList-RL-ReconfReadyTDD
                                                                              OPTIONAL.
                                 DL-CCTrCH-InformationList-RL-ReconfReadyTDD OPTIONAL,
   dl-CCTrCH-Information
   dCHInformationResponse
                                 DCH-InformationResponseList-RL-ReconfReadyTDD OPTIONAL,
   dSCHsToBeAddedOrModified
                                 DSCHToBeAddedOrModified-RL-ReconfReadyTDD
                                                                         OPTIONAL.
                                 USCHToBeAddedOrModified-RL-ReconfReadyTDD
   uSCHsToBeAddedOrModified
                                                                          OPTIONAL,
   iE-Extensions
                                 ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
RL-InformationResponse-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-HSDSCH-TDD-Information-Response
                                                CRITICALITY ignore
                                                                       EXTENSION HSDSCH-TDD-Information-Response
                                                                                                                 PRESENCE optional },
   . . .
UL-CCTrCH-InformationList-RL-ReconfReadyTDD
                                                ::= ProtocolIE-Single-Container {{UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}}
UL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
UL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-RL-ReconfReadyTDD
UL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
   cCTrCH-ID
                                 CCTrCH-ID.
   ul-DPCH-AddInformation
                                 UL-DPCH-InformationAddList-RL-ReconfReadyTDD
                                                                                     OPTIONAL,
   --For 3.84Mcps TDD only
   ul-DPCH-ModifyInformation
                                 UL-DPCH-InformationModifyList-RL-ReconfReadyTDD
                                                                                         OPTIONAL,
   --For 3.84Mcps TDD only
   ul-DPCH-DeleteInformation
                                 UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD
                                                                                         OPTIONAL,
                                 ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
UL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
   EXTENSION
                                                                                             UL-DPCH-LCR-InformationAddList-RL-
                  PRESENCE optional },
ReconfReadyTDD
   --For 1.28Mcps TDD only
   . . .
UL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-LCR-InformationAddListIEs-RL-ReconfReadyTDD}}
UL-DPCH-LCR-InformationAddListIEs-RL-ReconfReadvTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD CRITICALITY ignore TYPE UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD
   PRESENCE mandatory }
UL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod,
   repetitionLength
                                 RepetitionLength,
   tDD-DPCHOffset
                                 TDD-DPCHOffset,
   uL-TimeslotLCR-Info
                                 UL-TimeslotLCR-Information,
```

```
ProtocolExtensionContainer { {UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}
UL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD CRITICALITY ignore TYPE UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD
                                                                                                                           PRESENCE
optional }
UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                                RepetitionPeriod,
   repetitionLength
                                RepetitionLength,
   tDD-DPCHOffset
                                TDD-DPCHOffset,
   rxTimingDeviationForTA
                                RxTimingDeviationForTA
                                                             OPTIONAL,
   uL-Timeslot-Information
                                UL-Timeslot-Information,
   iE-Extensions
                                ProtocolExtensionContainer { {UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
UL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}
UL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD::= SEQUENCE {
   repetitionPeriod
                                RepetitionPeriod
                                                         OPTIONAL,
   repetitionLength
                                RepetitionLength
                                                         OPTIONAL,
   tDD-DPCHOffset
                                TDD-DPCHOffset
                                                         OPTIONAL,
   uL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                         UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                                                                             OPTIONAL,
   --For 3.84Mcps TDD only
                                ProtocolExtensionContainer { {UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   EXTENSION UL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD
                 PRESENCE optional },
   --For 1.28Mcps TDD only
```

```
UL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationModifyItem-RL-
ReconfReadyTDD
UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlotLCR
                                    TimeSlotLCR.
    midambleShiftLCR
                                    MidambleShiftLCR
                                                                OPTIONAL,
    t.FCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL.
                                        TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD
    tDD-uL-Code-LCR-Information
                                                                                                     OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
TDD-UL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD
TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID
                                    DPCH-ID,
    tDD-ChannelisationCodeLCR
                                        TDD-ChannelisationCodeLCR
                                                                        OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
TDD-UL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD
UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
                                    TimeSlot,
    timeSlot
    midambleShiftAndBurstTvpe
                                                MidambleShiftAndBurstType
                                                                                     OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL,
    uL-Code-Information
                                TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD
                                                                                             OPTIONAL,
                                    ProtocolExtensionContainer { {UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD
TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID
                                    DPCH-ID.
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode
                                    ProtocolExtensionContainer { {TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
```

```
TDD-UL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}
UL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF UL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD
UL-DPCH-InformationDeleteItem-RL-ReconfReadvTDD ::= SEOUENCE {
   dPCH-ID
                           DPCH-ID.
   iE-Extensions
                               ProtocolExtensionContainer { {UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
UL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationList-RL-ReconfReadvTDD
                                             ::= ProtocolIE-Single-Container {{DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD}}}
DL-CCTrCHInformationListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
DL-CCTrCHInformationListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-RL-ReconfReadyTDD
DL-CCTrCH-InformationItem-RL-ReconfReadyTDD ::= SEQUENCE {
   cCTrCH-ID
   dl-DPCH-AddInformation
                               DL-DPCH-InformationAddList-RL-ReconfReadvTDD
                                                                                OPTIONAL,
   --For 3.84Mcps TDD only
   dl-DPCH-ModifyInformation
                               DL-DPCH-InformationModifyList-RL-ReconfReadyTDD
                                                                                OPTIONAL,
   --For 3.84Mcps TDD only
   dl-DPCH-DeleteInformation
                               DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD
                                                                                OPTIONAL,
   iE-Extensions
                               ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
DL-CCTrCH-InformationItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   EXTENSION DL-DPCH-LCR-InformationAddList-RL-
ReconfReadyTDD
               PRESENCE optional },
   --For 1.28Mcps TDD only
 \texttt{DL-DPCH-LCR-InformationAddList-RL-ReconfReadyTDD} ::= \texttt{ProtocolIE-Single-Container} \ \{ \{ \texttt{DL-DPCH-LCR-InformationAddListIEs-RL-ReconfReadyTDD} \} \} 
DL-DPCH-LCR-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD
                                                         CRITICALITY ignore TYPE DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD
   PRESENCE mandatory }
DL-DPCH-LCR-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
                                RepetitionPeriod,
   repetitionPeriod
   repetitionLength
                                RepetitionLength,
   tDD-DPCHOffset
                                TDD-DPCHOffset,
   dL-TimeslotLCR-Info
                                DL-TimeslotLCR-Information,
                                ProtocolExtensionContainer { {DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DL-DPCH-LCR-InformationAddItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationAddList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationAddListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE
mandatory }
DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD ::= SEQUENCE {
   repetitionPeriod
                                RepetitionPeriod,
                                RepetitionLength,
   repetitionLength
   tDD-DPCHOffset
                                TDD-DPCHOffset,
   dL-Timeslot-Information
                                DL-Timeslot-Information,
                                ProtocolExtensionContainer { {DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DL-DPCH-InformationAddItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationModifyList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationModifyListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD ::= SEOUENCE
   repetitionPeriod
                               RepetitionPeriod
                                                        OPTIONAL.
   repetitionLength
                                RepetitionLength
                                                        OPTIONAL,
   tDD-DPCHOffset
                                TDD-DPCHOffset
                                                        OPTIONAL.
   dL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                        DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD
                                                                                                           OPTIONAL,
   --For 3.84Mcps TDD only
                                ProtocolExtensionContainer { {DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
```

```
DL-DPCH-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-Timeslot-LCR-InformationModifyList-RL-ReconfReadyTDD CRITICALITY ignore
                                                                                           EXTENSION DL-TimeslotLCR-InformationModifyList-RL-
ReconfReadyTDD
                    PRESENCE optional },
    --For 1.28Mcps TDD only
    . . .
DL-TimeslotLCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationModifyItem-RL-
ReconfReadyTDD
DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    timeSlotLCR
                                    TimeSlotLCR,
    midambleShiftLCR
                                    MidambleShiftLCR
                                                                OPTIONAL.
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL,
    tDD-dL-Code-LCR-Information
                                    TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD
                                                                                                  OPTIONAL.
    iE-Extensions
                                    ProtocolExtensionContainer { {DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
TDD-DL-Code-LCR-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationModifyItem-RL-
ReconfReadyTDD
TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
    dPCH-ID
                                    DPCH-ID,
    tDD-ChannelisationCodeLCR
                                    TDD-ChannelisationCodeLCR
                                                                    OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
    . . .
TDD-DL-Code-LCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
DL-TimeslotLCR-InformationModifyItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD
DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                    MidambleShiftAndBurstType
                                                                        OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                            OPTIONAL,
    dL-Code-Information
                                    TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD
                                                                                                OPTIONAL,
                                    ProtocolExtensionContainer { {DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL.
    iE-Extensions
DL-Timeslot-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DL-Code-InformationModifyList-RL-ReconfReadyTDD::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD
```

```
TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                               DPCH-ID.
   tDD-ChannelisationCode
                               TDD-ChannelisationCode
   iE-Extensions
                               ProtocolExtensionContainer { {TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
TDD-DL-Code-InformationModifyItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD}}
DL-DPCH-InformationDeleteListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   PRESENCE mandatory }
DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNrOfDPCHs)) OF DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD
DL-DPCH-InformationDeleteItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dPCH-ID
                            DPCH-ID.
                               ProtocolExtensionContainer { {DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DL-DPCH-InformationDeleteList-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-ReconfReadyTDD
                                                     ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyTDD} }
DCH-InformationResponseListIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-DCH-InformationResponse
                                   CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                    PRESENCE mandatory }
DSCHToBeAddedOrModified-RL-ReconfReadyTDD
                                             ::= ProtocolIE-Single-Container { {DSCHTOBeAddedOrModifiedIEs-RL-ReconfReadyTDD} }
DSCHTOBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   mandatory }
DSCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfDSCHs)) OF DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD
DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEQUENCE {
   dsch-ID
   transportFormatManagement TransportFormatManagement,
   dSCH-FlowControlInformation DSCH-FlowControlInformation,
   bindingID
                        BindingID OPTIONAL,
   transportLayerAddress TransportLayerAddress OPTIONAL,
   iE-Extensions
                        ProtocolExtensionContainer { {DSCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
```

```
DSCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                            ::= ProtocolIE-Single-Container { { USCHToBeAddedOrModifiedIEs-RL-ReconfReadyTDD} }
USCHToBeAddedOrModified-RL-ReconfReadyTDD
}USCHTOBeAddedOrModifiedIEs-RL-ReconfReadyTDD RNSAP-PROTOCOL-IES ::= {
   mandatory }
USCHTOBeAddedOrModifiedList-RL-ReconfReadyTDD ::= SEQUENCE (SIZE (0..maxNoOfUSCHs)) OF USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD
USCHToBeAddedOrModifiedItem-RL-ReconfReadyTDD ::= SEOUENCE {
                       USCH-ID,
   uSCH-ID
   transportFormatManagement TransportFormatManagement,
   bindingID
                       BindingID OPTIONAL,
   transportLayerAddress TransportLayerAddress OPTIONAL,
                       ProtocolExtensionContainer { {USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
USCHTOBeAddedOrModifiedItem-RL-ReconfReadyTDD-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationReadyTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   EXTENSION RL-ReconfigurationReadyTDD-RL-Information PRESENCE
   optional}
   { ID id-HSDSCH-RNTI
                                                                                   PRESENCE optional },
                           CRITICALITY reject
                                                EXTENSION HSDSCH-RNTI
   . . .
RL-ReconfigurationReadyTDD-RL-Information ::= SEQUENCE {
   rL-Specific-DCH-Info RL-Specific-DCH-Info OPTIONAL,
   iE-Extensions
                       ProtocolExtensionContainer { { RL-ReconfigurationReadyTDD-RL-Information-ExtIEs} } OPTIONAL,
RL-ReconfigurationReadyTDD-RL-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION COMMIT
  *****************
RadioLinkReconfigurationCommit ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                       {{RadioLinkReconfigurationCommit-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{RadioLinkReconfigurationCommit-Extensions}}
                                                                                                              OPTIONAL,
   . . .
```

```
RadioLinkReconfigurationCommit-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-CFN
                             CRITICALITY ignore TYPE CFN
                                                                           PRESENCE mandatory } |
    { ID id-Active-Pattern-Sequence-Information
                                              CRITICALITY ignore TYPE Active-Pattern-Sequence-Information
                                                                                                              PRESENCE optional \, --FDD only
RadioLinkReconfigurationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  RADIO LINK RECONFIGURATION FAILURE
RadioLinkReconfigurationFailure ::= SEQUENCE {
                                                            {{RadioLinkReconfigurationFailure-IEs}},
   protocolIEs
                                  ProtocolIE-Container
   protocolExtensions
                                 ProtocolExtensionContainer {{RadioLinkReconfigurationFailure-Extensions}}
                                                                                                                         OPTIONAL,
RadioLinkReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-CauseLevel-RL-ReconfFailure
                                         CRITICALITY ignore TYPE CauseLevel-RL-Reconffailure PRESENCE mandatory
    { ID id-CriticalityDiagnostics
                                         CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional },
CauseLevel-RL-ReconfFailure ::= CHOICE {
                      GeneralCauseList-RL-ReconfFailure,
   generalCause
   rLSpecificCause
                      RLSpecificCauseList-RL-ReconfFailure,
GeneralCauseList-RL-ReconfFailure ::= SEQUENCE {
    cause
   iE-Extensions
                                             ProtocolExtensionContainer { { GeneralCauseItem-RL-ReconfFailure-ExtIEs} }
                                                                                                                            OPTIONAL,
GeneralCauseItem-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RLSpecificCauseList-RL-ReconfFailure ::= SEQUENCE {
   rL-ReconfigurationFailureList-RL-ReconfFailure
                                                     RL-ReconfigurationFailureList-RL-ReconfFailure
                                                                                                     OPTIONAL,
   iE-Extensions
                                                     OPTIONAL,
RLSpecificCauseItem-RL-Reconffailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RL-ReconfigurationFailureList-RL-Reconffailure ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-ReconfigurationFailure-RL-
ReconfFailure-IEs} }
RL-ReconfigurationFailure-RL-ReconfFailure-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-ReconfigurationFailure-RL-ReconfFail CRITICALITY ignore TYPE RL-ReconfigurationFailure-RL-ReconfFail PRESENCE mandatory }
RL-ReconfigurationFailure-RL-ReconfFail ::= SEQUENCE {
                            RL-ID,
   cause
   iE-Extensions
                                 ProtocolExtensionContainer { {RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs} } OPTIONAL,
RL-ReconfigurationFailure-RL-ReconfFailure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION CANCEL
           ********************
RadioLinkReconfigurationCancel ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                          {{RadioLinkReconfigurationCancel-IEs}},
                                ProtocolExtensionContainer {{RadioLinkReconfigurationCancel-Extensions}}
                                                                                                                    OPTIONAL,
   protocolExtensions
RadioLinkReconfigurationCancel-IEs RNSAP-PROTOCOL-IES ::= {
RadioLinkReconfigurationCancel-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ******************
-- RADIO LINK RECONFIGURATION REQUEST FDD
  RadioLinkReconfigurationRequestFDD ::= SEQUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                          {{RadioLinkReconfigurationRequestFDD-IEs}},
                                ProtocolExtensionContainer {{RadioLinkReconfigurationRequestFDD-Extensions}}
   protocolExtensions
                                                                                                                        OPTIONAL,
```

```
RadioLinkReconfigurationRequestFDD-IES RNSAP-PROTOCOL-IES ::= {
    ID id-AllowedOueuingTime
                                CRITICALITY reject TYPE AllowedOueuingTime
                                                                              PRESENCE optional } |
    ID id-DCHs-to-Add-FDD CRITICALITY reject TYPE DCH-FDD-Information
                                                                    PRESENCE optional
    PRESENCE optional } |
   ID id-Transmission-Gap-Pattern-Sequence-Information CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE
optional },
   . . .
UL-DPCH-Information-RL-ReconfRgstFDD ::= SEQUENCE {
   iE-Extensions
                             ProtocolExtensionContainer { {UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
UL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
                             TFCS OPTIONAL,
   tFCI-SignallingMode
                             TFCI-SignallingMode OPTIONAL,
   limitedPowerIncrease
                             LimitedPowerIncrease
                                                OPTIONAL,
                             ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                  ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD
DCH-DeleteList-RL-ReconfRqstFDD
DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
   dCH-ID
                             ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
   iE-Extensions
DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-RL-ReconfigurationRequestFDD-RL-InformationList CRITICALITY ignore
                                                                     EXTENSION RL-ReconfigurationRequestFDD-RL-InformationList
   PRESENCE optional |
   { ID id-DL-ReferencePowerInformation
                                          CRITICALITY ignore EXTENSION DL-ReferencePowerInformation
                                                                                                   PRESENCE optional },
```

```
RL-ReconfigurationRequestFDD-RL-InformationList ::= SEOUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    {RL-ReconfigurationRequestFDD-RL-Information-ListItem} }
RL-ReconfigurationRequestFDD-RL-Information-ListItem RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-ReconfigurationRequestFDD-RL-Information-IEs CRITICALITY ignore TYPE RL-ReconfigurationRequestFDD-RL-Information-IEs PRESENCE
optional }
RL-ReconfigurationRequestFDD-RL-Information-IEs ::= SEQUENCE {
                           RL-ID,
                          RL-Specific-DCH-Info OPTIONAL,
   rL-Specific-DCH-Info
   iE-Extensions
                          ProtocolExtensionContainer { { RL-ReconfigurationRequestFDD-RL-Information-ExtIEs} } OPTIONAL.
RL-ReconfigurationRequestFDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION REQUEST TDD
         ***************
RadioLinkReconfigurationRequestTDD ::= SEOUENCE {
                                                              {{RadioLinkReconfigurationRequestTDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
                                   ProtocolExtensionContainer {{RadioLinkReconfigurationRequestTDD-Extensions}}
   protocolExtensions
                                                                                                                               OPTIONAL,
RadioLinkReconfigurationRequestTDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-AllowedOueuingTime
                                      CRITICALITY reject TYPE AllowedOueuingTime
                                                                                             PRESENCE optional }
    ID id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                              CRITICALITY notify TYPE UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD PRESENCE
optional } |
    { ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                              CRITICALITY notify TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD PRESENCE
optional } |
    { ID id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                              CRITICALITY notify TYPE DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
optional } |
    { ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                              CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD PRESENCE
optional } |
                                  CRITICALITY reject TYPE TDD-DCHs-to-Modify
                                                                                 PRESENCE optional
     ID id-TDD-DCHs-to-Modify
                               CRITICALITY reject TYPE DCH-TDD-Information
                                                                                 PRESENCE optional
     ID id-DCHs-to-Add-TDD
     ID id-DCH-DeleteList-RL-ReconfRqstTDD
                                              CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfRgstTDD
                                                                                                          PRESENCE optional },
UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD
                                                      ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }
UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IEs RNSAP-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,
   t.FCS
                                     OPTIONAL.
                               ProtocolExtensionContainer { {UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                ::= SEOUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {UL-CCTrCH-
InformationDeleteList-RL-ReconfRqstTDD-IEs} }
UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD ::= SEOUENCE {
   cCTrCH-ID
                           CCTrCH-ID,
                               ProtocolExtensionContainer { {UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   . . .
DL-CCTrCH-InformationModifyList-RL-ReconfRgstTDD
                                                ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationModifyList-RL-ReconfRqstTDD-IEs} }
DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
   mandatory }
DL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD ::= SEQUENCE {
   cCTrCH-ID
                           CCTrCH-ID,
   t FCS
                           TFCS
                                     OPTIONAL,
                               ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD-ExtIEs} } OPTIONAL.
   iE-Extensions
DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                ::= SEQUENCE (SIZE (0..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container { {DL-CCTrCH-
InformationDeleteList-RL-ReconfRqstTDD-IEs} }
```

```
DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IES RNSAP-PROTOCOL-IES ::= {
   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 RNSAP-PROTOCOL-EXTENSION ::= {
DCH-DeleteList-RL-ReconfRqstTDD
                                     ::= SEQUENCE (SIZE(0..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 RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
 EXTENSION RL-ReconfigurationRequestTDD-RL-Information
                                                                                                                      PRESENCE
   optional},
RL-ReconfigurationRequestTDD-RL-Information ::= SEQUENCE {
                       RL-ID,
   rL-Specific-DCH-Info RL-Specific-DCH-Info OPTIONAL,
                       ProtocolExtensionContainer { { RL-ReconfigurationRequestTDD-RL-Information-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-ReconfigurationRequestTDD-RL-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK RECONFIGURATION RESPONSE FDD
  *****************
RadioLinkReconfigurationResponseFDD ::= SEQUENCE {
                                                      {{RadioLinkReconfigurationResponseFDD-IEs}},
   protocolIEs
                              ProtocolIE-Container
                              ProtocolExtensionContainer {{RadioLinkReconfigurationResponseFDD-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
```

```
RadioLinkReconfigurationResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-ReconfRspFDD
                                                         CRITICALITY ignore TYPE RL-InformationResponseList-RL-ReconfRspFDD
                                                                                                                                PRESENCE
optional } |
    { ID id-CriticalityDiagnostics
                                          CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                              PRESENCE optional },
RL-InformationResponseList-RL-ReconfRspFDD
                                              ::= SEQUENCE (SIZE (0..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationResponse-RL-
ReconfRspFDD-IEs} }
RL-InformationResponse-RL-ReconfRspFDD-IES RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-ReconfRspFDD
                                                         CRITICALITY ignore TYPE RL-InformationResponseItem-RL-ReconfRspFDD
mandatory }
RL-InformationResponseItem-RL-ReconfRspFDD ::= SEQUENCE {
   rL-ID
                                  RL-ID,
   max-UL-SIR
                                  UL-SIR
                                                  OPTIONAL,
   min-UL-SIR
                                  UL-SIR
                                                  OPTIONAL,
   maximumDLTxPower
                                  DL-Power
                                                  OPTIONAL,
   minimumDLTxPower
                                  DL-Power
                                                  OPTIONAL,
    secondary-CCPCH-Info
                                  Secondary-CCPCH-Info
                                                             OPTIONAL.
    dCHsInformationResponseList
                                  DCH-InformationResponseList-RL-ReconfRspFDD OPTIONAL,
                                          DL-CodeInformationList-RL-ReconfRspFDD OPTIONAL,
   dL-CodeInformationList-RL-ReconfResp
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs} } OPTIONAL,
RL-InformationResponseItem-RL-ReconfRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-DL-PowerBalancing-UpdatedIndicator CRITICALITY ignore
                                                                     EXTENSION
                                                                                    DL-PowerBalancing-UpdatedIndicator
                                                                                                                          PRESENCE optional },
    . . .
DCH-InformationResponseList-RL-ReconfRspFDD
                                                     ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspFDD} }
DCH-InformationResponseListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    ID id-DCH-InformationResponse
                                      CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                            PRESENCE mandatory
DL-CodeInformationList-RL-ReconfRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfRspFDD }}
DL-CodeInformationListIEs-RL-ReconfRspFDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE optional }
RadioLinkReconfigurationResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
-- RADIO LINK RECONFIGURATION RESPONSE TDD
  *****************
RadioLinkReconfigurationResponseTDD ::= SEOUENCE {
                                                            {{RadioLinkReconfigurationResponseTDD-IEs}},
   protocolIEs
                                  ProtocolIE-Container
   protocolExtensions
                                  ProtocolExtensionContainer {{RadioLinkReconfigurationResponseTDD-Extensions}}
                                                                                                                              OPTIONAL.
RadioLinkReconfigurationResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponse-RL-ReconfRspTDD
                                                  CRITICALITY ignore TYPE RL-InformationResponse-RL-ReconfRspTDD
                                                                                                                         PRESENCE optional }
    { ID id-CriticalityDiagnostics
                                      CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                             PRESENCE optional }.
RL-InformationResponse-RL-ReconfRspTDD ::= SEQUENCE {
                                  RL-ID,
   max-UL-SIR
                                  UL-SIR
                                                 OPTIONAL,
   min-UL-SIR
                                  UL-SIR
                                                 OPTIONAL,
                                  DL-Power
                                                 OPTIONAL,
   maximumDLTxPower
   minimumDLTxPower
                                  DL-Power
                                                 OPTIONAL,
   dCHsInformationResponseList
                                  DCH-InformationResponseList-RL-ReconfRspTDD OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationResponse-RL-ReconfRspTDD-ExtIEs} } OPTIONAL,
RL-InformationResponse-RL-ReconfRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-InformationResponseList-RL-ReconfRspTDD
                                                     ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRspTDD} }
DCH-InformationResponseListIEs-RL-ReconfRspTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DCH-InformationResponse CRITICALITY ignore TYPE DCH-InformationResponse
                                                                                   PRESENCE optional }
RadioLinkReconfigurationResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RADIO LINK FAILURE INDICATION
  ******************
RadioLinkFailureIndication ::= SEQUENCE {
   protocolIEs
                                  ProtocolIE-Container
                                                            {{RadioLinkFailureIndication-IEs}},
                                  ProtocolExtensionContainer {{RadioLinkFailureIndication-Extensions}}
   protocolExtensions
                                                                                                                     OPTIONAL,
```

```
RadioLinkFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
   . . .
Reporting-Object-RL-FailureInd ::= CHOICE {
                         RL-RL-FailureInd.
   rL-Set
                         RL-Set-RL-FailureInd, --FDD only
   . . . ,
   cCTrCH
                         CCTrCH-RL-FailureInd --TDD only
RL-RL-FailureInd
                         ::= SEOUENCE {
   rL-InformationList-RL-FailureInd
                                        RL-InformationList-RL-FailureInd,
   iE-Extensions
                                        ProtocolExtensionContainer { { RLItem-RL-FailureInd-ExtIEs} } OPTIONAL,
RLItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-FailureInd
                                        ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-FailureInd-IEs}
RL-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-FailureInd
                                                                                                  PRESENCE mandatory
                                        CRITICALITY ignore TYPE RL-Information-RL-FailureInd
RL-Information-RL-FailureInd ::= SEQUENCE {
   rL-ID
                             RL-ID,
   cause
                             Cause,
   iE-Extensions
                                 ProtocolExtensionContainer { {RL-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
RL-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-RL-FailureInd
                             ::= SEOUENCE {
   rL-Set-InformationList-RL-FailureInd
                                        RL-Set-InformationList-RL-FailureInd,
                                        ProtocolExtensionContainer { { RL-SetItem-RL-FailureInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-SetItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-RL-FailureInd
                                            ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-RL-
FailureInd-IEs} }
RL-Set-Information-RL-FailureInd-IEs RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-RL-Set-Information-RL-FailureInd
                                                 CRITICALITY ignore TYPE RL-Set-Information-RL-FailureInd PRESENCE mandatory }
RL-Set-Information-RL-FailureInd ::= SEOUENCE {
   rL-Set-ID
                                  RL-Set-ID.
    cause
                                  Cause,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-Set-Information-RL-FailureInd-ExtIEs} } OPTIONAL,
RL-Set-Information-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-RL-FailureInd ::= SEOUENCE {
                                             RL-ID.
    cCTrCH-InformationList-RL-FailureInd
                                             CCTrCH-InformationList-RL-FailureInd,
                                         ProtocolExtensionContainer { { CCTrCHItem-RL-FailureInd-ExtIEs } }
   iE-Extensions
                                                                                                             OPTIONAL,
CCTrCHItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-InformationList-RL-FailureInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
FailureInd}}
CCTrCH-InformationItemIE-RL-FailureInd RNSAP-PROTOCOL-IES ::= {
    { ID id-CCTrCH-InformationItem-RL-FailureInd
                                                        CRITICALITY
                                                                        ignore
                                                                                       TYPE CCTrCH-InformationItem-RL-FailureInd
    PRESENCE mandatory
CCTrCH-InformationItem-RL-FailureInd ::= SEQUENCE
    cCTrCH-ID
                                             CCTrCH-ID,
    cause
                                             Cause,
                                             ProtocolExtensionContainer { { CCTrCH-InformationItem-RL-FailureInd-ExtIEs } }
    iE-Extensions
                                                                                                                           OPTIONAL,
CCTrCH-InformationItem-RL-FailureInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- RADIO LINK PREEMPTION REQUIRED INDICATION
__ *********************************
```

```
RadioLinkPreemptionRequiredIndication ::= SEQUENCE {
   protocolIEs
                            ProtocolIE-Container
                                                   {{RadioLinkPreemptionRequiredIndication-IEs}},
   protocolExtensions
                            ProtocolExtensionContainer {{RadioLinkPreemptionRequiredIndication-Extensions}}
                                                                                                            OPTIONAL.
RadioLinkPreemptionRequiredIndication-IEs RNSAP-PROTOCOL-IES ::= {
   RL-InformationList-RL-PreemptRequiredInd
                                       ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
PreemptRequiredInd} }
RL-InformationItemIEs-RL-PreemptRequiredInd RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-InformationItem-RL-PreemptRequiredInd
                                                CRITICALITY ignore TYPE RL-InformationItem-RL-PreemptRequiredInd
                                                                                                         PRESENCE
mandatory }
RL-InformationItem-RL-PreemptRequiredInd::= SEQUENCE {
   rI-TD
                         RL-ID,
   iE-Extensions
                         ProtocolExtensionContainer { {RL-Information-RL-PreemptRequiredInd-ExtIEs} } OPTIONAL,
RL-Information-RL-PreemptRequiredInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkPreemptionRequiredIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- RADIO LINK RESTORE INDICATION
  *************************
RadioLinkRestoreIndication ::= SEQUENCE {
   protocolIEs
                            ProtocolIE-Container
                                                   {{RadioLinkRestoreIndication-IEs}},
   protocolExtensions
                            ProtocolExtensionContainer {{RadioLinkRestoreIndication-Extensions}}
                                                                                                   OPTIONAL,
RadioLinkRestoreIndication-IEs RNSAP-PROTOCOL-IES ::= {
   . . .
Reporting-Object-RL-RestoreInd ::= CHOICE {
   rL
                      RL-RL-RestoreInd,
                      RL-Set-RL-RestoreInd, --FDD only
   rL-Set
   . . . ,
```

```
CCTrCH-RL-RestoreInd --TDD only
    cCTrCH
RL-RL-RestoreInd ::= SEQUENCE {
   rL-InformationList-RL-RestoreInd
                                         RL-InformationList-RL-RestoreInd.
                                         ProtocolExtensionContainer { { RLItem-RL-RestoreInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RLItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-RL-RestoreInd
                                         ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-RL-RestoreInd-IEs}
RL-Information-RL-RestoreInd-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-Information-RL-RestoreInd
                                             CRITICALITY ignore TYPE RL-Information-RL-RestoreInd
                                                                                                     PRESENCE mandatory
RL-Information-RL-RestoreInd ::= SEQUENCE {
                                  ProtocolExtensionContainer { {RL-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-RL-RestoreInd ::= SEOUENCE {
   rL-Set-InformationList-RL-RestoreInd
                                         RL-Set-InformationList-RL-RestoreInd,
   iE-Extensions
                                         RL-SetItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                             ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-RL-
RL-Set-InformationList-RL-RestoreInd
RestoreInd-IEs} }
RL-Set-Information-RL-RestoreInd-IES RNSAP-PROTOCOL-IES ::= {
                                            CRITICALITY ignore TYPE RL-Set-Information-RL-RestoreInd PRESENCE mandatory }
   { ID id-RL-Set-Information-RL-RestoreInd
RL-Set-Information-RL-RestoreInd ::= SEQUENCE {
   rL-Set-ID
                                  RL-Set-ID,
                                  ProtocolExtensionContainer { {RL-Set-Information-RL-RestoreInd-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Set-Information-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
RadioLinkRestoreIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-RL-RestoreInd ::= SEQUENCE {
                                       RL-ID,
                                       CCTrCH-InformationList-RL-RestoreInd,
   cCTrCH-InformationList-RL-RestoreInd
                                    ProtocolExtensionContainer { { CCTrCHItem-RL-RestoreInd-ExtIEs } }
   iE-Extensions
                                                                                              OPTIONAL,
CCTrCHItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CCTrCH-InformationList-RL-RestoreInd ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF ProtocolIE-Single-Container {{ CCTrCH-InformationItemIE-RL-
RestoreInd}}
CCTrCH-InformationItemIE-RL-RestoreInd RNSAP-PROTOCOL-IES ::= {
   { ID id-CCTrCH-InformationItem-RL-RestoreInd
                                                 CRITICALITY
                                                              ignore
                                                                          TYPE CCTrCH-InformationItem-RL-RestoreInd
   PRESENCE mandatory}
CCTrCH-InformationItem-RL-RestoreInd ::= SEQUENCE {
   cCTrCH-ID
                                          CCTrCH-ID,
   iE-Extensions
                                       OPTIONAL,
CCTrCH-InformationItem-RL-RestoreInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  -- DOWNLINK POWER CONTROL REQUEST
__ **********************
DL-PowerControlRequest ::= SEQUENCE {
   protocolIEs
                                                   {{DL-PowerControlRequest-IEs}},
                             ProtocolIE-Container
                             ProtocolExtensionContainer {{DL-PowerControlRequest-Extensions}}
   protocolExtensions
                                                                                                 OPTIONAL,
DL-PowerControlRequest-IEs RNSAP-PROTOCOL-IES ::= {
    ID id-PowerAdjustmentType
                                CRITICALITY ignore TYPE PowerAdjustmentType
                                                                                PRESENCE mandatory }
   { ID id-DLReferencePower
                                                                                PRESENCE conditional }
                                CRITICALITY ignore TYPE DL-Power
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    ID id-InnerLoopDLPCStatus
                          CRITICALITY ignore TYPE InnerLoopDLPCStatus
                                                                                PRESENCE optional }
```

```
-- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
   { ID id-MaxAdjustmentStep
                                  CRITICALITY ignore TYPE MaxAdjustmentStep
                                                                                 PRESENCE conditional }
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
   { ID id-AdjustmentPeriod
                                  CRITICALITY ignore TYPE AdjustmentPeriod
                                                                                 PRESENCE conditional } |
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
                               CRITICALITY ignore TYPE ScaledAdjustmentRatio
   { ID id-AdjustmentRatio
                                                                                 PRESENCE conditional },
   -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
DL-ReferencePowerInformationList-DL-PC-Rqst
                                             ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {DL-
ReferencePowerInformation-DL-PC-Rqst-IEs} }
DL-ReferencePowerInformation-DL-PC-Rost-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-DL-ReferencePowerInformation-DL-PC-Rgst CRITICALITY ignore TYPE DL-ReferencePowerInformation-DL-PC-Rgst PRESENCE mandatory
DL-ReferencePowerInformation-DL-PC-Rgst ::= SEQUENCE {
                           RL-ID,
   dl-Reference-Power
                                   DL-Power.
   iE-Extensions
                               ProtocolExtensionContainer { {DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs} } OPTIONAL,
DL-ReferencePowerInformation-DL-PC-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-PowerControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- DOWNLINK POWER TIMESLOT CONTROL REQUEST TDD
  DL-PowerTimeslotControlRequest ::= SEOUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{DL-PowerTimeslotControlRequest-IEs}},
                               ProtocolExtensionContainer {{DL-PowerTimeslotControlRequest-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
DL-PowerTimeslotControlRequest-IES RNSAP-PROTOCOL-IES ::= {
   -- Mandatory for 3.84Mcps TDD only
DL-PowerTimeslotControlRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   ignore EXTENSION
                                                                              DL-TimeSlot-ISCP-LCR-Information PRESENCE optional |
   --Mandatory for 1.28Mcps TDD only
   { ID id-PrimCCPCH-RSCP-DL-PC-RqstTDD
                                             CRITICALITY ignore
                                                                  EXTENSION PrimaryCCPCH-RSCP
                                                                                                   PRESENCE optional },
```

```
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST FDD
  ******************
PhysicalChannelReconfigurationRequestFDD ::= SEQUENCE {
                                                     {{PhysicalChannelReconfigurationRequestFDD-IEs}},
   protocolIEs
                             ProtocolIE-Container
                             ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestFDD-Extensions}}
   protocolExtensions
                                                                                                                  OPTIONAL.
PhysicalChannelReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
   RL-Information-PhyChReconfRqstFDD ::= SEQUENCE {
   dl-CodeInformation
                              DL-CodeInformationList-PhyChReconfRqstFDD,
   iE-Extensions
                              ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstFDD-ExtIEs} } OPTIONAL,
RL-Information-PhyChReconfRgstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                                       ::= ProtocolIE-Single-Container { {DL-CodeInformationListIEs-PhyChReconfRqstFDD} }
DL-CodeInformationList-PhyChReconfRqstFDD
DL-CodeInformationListIEs-PhyChReconfRqstFDD RNSAP-PROTOCOL-IES ::= {
   { ID id-FDD-DL-CodeInformation CRITICALITY notify TYPE FDD-DL-CodeInformation PRESENCE mandatory }
PhysicalChannelReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST TDD
  PhysicalChannelReconfigurationRequestTDD ::= SEQUENCE {
   protocolIEs
                             ProtocolIE-Container
                                                     {{PhysicalChannelReconfigurationRequestTDD-IEs}},
   protocolExtensions
                             ProtocolExtensionContainer {{PhysicalChannelReconfigurationRequestTDD-Extensions}}
                                                                                                                  OPTIONAL,
PhysicalChannelReconfigurationRequestTDD-IES RNSAP-PROTOCOL-IES ::= {
```

```
{ ID id-RL-Information-PhyChReconfRqstTDD CRITICALITY reject TYPE RL-Information-PhyChReconfRqstTDD
                                                                                                       PRESENCE mandatory },
RL-Information-PhyChReconfRgstTDD ::= SEQUENCE {
                              RL-ID,
   ul-CCTrCH-Information
                                     UL-CCTrCH-InformationList-PhyChReconfRgstTDD
                                                                                   OPTIONAL.
   dl-CCTrCH-Information
                                     DL-CCTrCH-InformationList-PhyChReconfRgstTDD
                                                                                   OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-Information-PhyChReconfRgstTDD-ExtIEs} } OPTIONAL,
RL-Information-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-CCTrCH-InformationList-PhyChReconfRqstTDD
                                                 ::= ProtocolIE-Single-Container { {UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD} }
UL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                            CRITICALITY reject TYPE UL-CCTrCH-InformationListIE-PhyChReconfRgstTDD
                                                                                                                                    PRESENCE
mandatory }
UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF UL-CCTrCH-InformationItem-PhyChReconfRqstTDD
UL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE
    cCTrCH-ID
                                  CCTrCH-ID,
   ul-DPCH-Information
                                  UL-DPCH-InformationList-PhyChReconfRgstTDD,
                                  ProtocolExtensionContainer { {UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{UL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}
UL-DPCH-InformationListIEs-PhyChReconfRgstTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory
UL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
   repetitionPeriod
                                 RepetitionPeriod
                                                        OPTIONAL,
   repetitionLength
                                 RepetitionLength
                                                        OPTIONAL,
   tDD-DPCHOffset
                                 TDD-DPCHOffset
                                                        OPTIONAL,
    uL-Timeslot-InformationList-PhyChReconfRqstTDD
                                                        UL-Timeslot-InformationList-PhyChReconfRgstTDD
    --For 3.84Mcps TDD only
   iE-Extensions
                                  ProtocolExtensionContainer { {UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    . . .
UL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
{ ID id-UL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD CRITICALITY reject
                                                                                        EXTENSION UL-TimeslotLCR-InformationList-
PhyChReconfRqstTDD
                        PRESENCE optional },
    --For 1.28Mcps TDD only
UL-TimeslotLCR-InformationList-PhyChReconfRgstTDD::= SEOUENCE ( SIZE (1..maxNrOfTsLCR)) OF UL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD
UL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    timeSlotLCR
                                    TimeSlotLCR,
    midambleShiftLCR
                                    MidambleShiftLCR
                                                            OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                        OPTIONAL,
    uL-Code-LCR-Information
                                    TDD-UL-Code-LCR-Information
                                                                    OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD-ExtIEs} } OPTIONAL.
UL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
UL-Timeslot-InformationList-PhyChReconfRqstTDD::= SEQUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem-PhyChReconfRqstTDD
UL-Timeslot-InformationItem-PhyChReconfRgstTDD ::= SEOUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                                MidambleShiftAndBurstType
                                                                                OPTIONAL,
    tFCI-Presence
                                    TFCI-Presence
                                                        OPTIONAL,
    uL-Code-Information
                                TDD-UL-Code-Information
                                                            OPTIONAL,
                                    ProtocolExtensionContainer { {UL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
UL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-CCTrCH-InformationList-PhyChReconfRqstTDD
                                                    ::= ProtocolIE-Single-Container { {DL-CCTrCH-InformationListIEs-PhyChReconfRqstTDD} }
DL-CCTrCH-InformationListIEs-PhyChReconfRgstTDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                               CRITICALITY reject TYPE DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                                                                                                            PRESENCE
mandatory }
DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationItem-PhyChReconfRqstTDD
DL-CCTrCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID
                                    CCTrCH-ID,
    dl-DPCH-Information
                                    DL-DPCH-InformationList-PhyChReconfRgstTDD,
   iE-Extensions
                                    ProtocolExtensionContainer { {DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
    . . .
DL-CCTrCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DL-DPCH-InformationList-PhyChReconfRqstTDD ::= ProtocolIE-Single-Container {{DL-DPCH-InformationListIEs-PhyChReconfRqstTDD}}
DL-DPCH-InformationListIEs-PhyChReconfRgstTDD RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
DL-DPCH-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
   repetitionPeriod
                                RepetitionPeriod
                                                       OPTIONAL,
   repetitionLength
                                RepetitionLength
                                                       OPTIONAL,
   tDD-DPCHOffset
                                TDD-DPCHOffset
                                                       OPTIONAL,
   dL-Timeslot-InformationList-PhyChReconfRqstTDD
                                                      DL-Timeslot-InformationList-PhyChReconfRqstTDD OPTIONAL,
   iE-Extensions
                                 ProtocolExtensionContainer { {DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
DL-DPCH-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
    EXTENSION DL-TimeslotLCR-InformationList-
                     PRESENCE optional },
PhyChReconfRqstTDD
   --For 1.28Mcps TDD only
   . . .
DL-TimeslotLCR-InformationList-PhyChReconfRgstTDD::= SEQUENCE ( SIZE (1..maxNrOfTsLCR)) OF DL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD
DL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD ::= SEQUENCE {
   timeSlotLCR
                                TimeSlotLCR,
   midambleShiftLCR
                                MidambleShiftLCR
                                                       OPTIONAL.
   tFCI-Presence
                                TFCI-Presence
                                                   OPTIONAL,
   dL-Code-LCR-Information
                                TDD-DL-Code-LCR-Information
   iE-Extensions
                                ProtocolExtensionContainer { {DL-TimeslotLCR-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
   . . .
DL-TimeslotLCR-InformationItem-PhyChReconfRgstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-Timeslot-InformationList-PhyChReconfRqstTDD::= SEOUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem-PhyChReconfRqstTDD
DL-Timeslot-InformationItem-PhyChReconfRqstTDD ::= SEQUENCE {
   timeSlot
                                TimeSlot,
   midambleShiftAndBurstType
                                           MidambleShiftAndBurstType
                                                                         OPTIONAL,
   tFCI-Presence
                                 TFCI-Presence
                                                   OPTIONAL,
   dL-Code-Information
                             TDD-DL-Code-Information
                                                      OPTIONAL,
   iE-Extensions
                                ProtocolExtensionContainer { {DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs} } OPTIONAL,
DL-Timeslot-InformationItem-PhyChReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
PhysicalChannelReconfigurationRequestTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- PHYSICAL CHANNEL RECONFIGURATION COMMAND
PhysicalChannelReconfigurationCommand ::= SEQUENCE {
                                                        {{PhysicalChannelReconfigurationCommand-IEs}},
   protocolIEs
                               ProtocolIE-Container
                               ProtocolExtensionContainer {{PhysicalChannelReconfigurationCommand-Extensions}}
   protocolExtensions
                                                                                                                       OPTIONAL,
PhysicalChannelReconfigurationCommand-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-CFN
                  CRITICALITY ignore TYPE CFN
                                                                       PRESENCE mandatory }
   { ID id-CriticalityDiagnostics
                                CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                       PRESENCE optional },
PhysicalChannelReconfigurationCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- PHYSICAL CHANNEL RECONFIGURATION FAILURE
PhysicalChannelReconfigurationFailure ::= SEQUENCE {
                                                        {{PhysicalChannelReconfigurationFailure-IEs}},
   protocolIEs
                               ProtocolIE-Container
                               ProtocolExtensionContainer {{PhysicalChannelReconfigurationFailure-Extensions}}
   protocolExtensions
                                                                                                                       OPTIONAL,
PhysicalChannelReconfigurationFailure-IEs RNSAP-PROTOCOL-IES ::= 
     ID id-Cause
                               CRITICALITY ignore TYPE Cause
                                                                          PRESENCE mandatory }
    ID id-CriticalityDiagnostics
                               CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                       PRESENCE optional },
PhysicalChannelReconfigurationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   ***************
-- RADIO LINK CONGESTION INDICATION
  ******************
```

```
RadioLinkCongestionIndication ::= SEQUENCE {
   protocolIEs
                                 ProtocolIE-Container
                                                          {{RadioLinkCongestionIndication-IEs}},
   protocolExtensions
                                 ProtocolExtensionContainer {{RadioLinkCongestionIndication-Extensions}}
                                                                                                                    OPTIONAL.
RadioLinkCongestionIndication-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-CongestionCause
                                            CRITICALITY ignore TYPE CongestionCause
                                                                                                     PRESENCE optional }
    PRESENCE mandatory },
   . . .
                                        ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-InformationItemIEs-RL-
RL-InformationList-RL-CongestInd
CongestInd } }
RL-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-InformationItem-RL-CongestInd
                                               CRITICALITY ignore TYPE RL-InformationItem-RL-CongestInd PRESENCE mandatory
RL-InformationItem-RL-CongestInd ::= SEQUENCE {
   rI.-ID
                                    RL-ID,
   dCH-Rate-Information
                             DCH-Rate-Information-RL-CongestInd,
                             ProtocolExtensionContainer { {RL-Information-RL-CongestInd-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
DCH-Rate-Information-RL-CongestInd ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF ProtocolIE-Single-Container { {DCH-Rate-InformationItemIEs-RL-
CongestInd } }
DCH-Rate-InformationItemIEs-RL-CongestInd RNSAP-PROTOCOL-IES ::= {
   { ID id-DCH-Rate-InformationItem-RL-CongestInd
                                                CRITICALITY ignore TYPE DCH-Rate-InformationItem-RL-CongestInd
                                                                                                                   PRESENCE mandatory
DCH-Rate-InformationItem-RL-CongestInd ::= SEQUENCE {
   dCH-ID
                             DCH-ID,
   allowed-Rate-Information Allowed-Rate-Information OPTIONAL,
   iE-Extensions
                             ProtocolExtensionContainer { {DCH-Rate-InformationItem-RL-CongestInd-ExtIEs} } OPTIONAL,
DCH-Rate-InformationItem-RL-CongestInd-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Information-RL-CongestInd-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
RadioLinkCongestionIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
```

```
-- UPLINK SIGNALLING TRANSFER INDICATION FDD
UplinkSignallingTransferIndicationFDD ::= SEQUENCE {
                                                  {{UplinkSignallingTransferIndicationFDD-IEs}},
   protocolIEs
                            ProtocolIE-Container
   protocolExtensions
                            ProtocolExtensionContainer {{UplinkSignallingTransferIndicationFDD-Extensions}}
                                                                                                         OPTIONAL.
UplinkSignallingTransferIndicationFDD-IEs RNSAP-PROTOCOL-IES ::= {
    ID id-UC-ID
                                                                  PRESENCE mandatory }
                            CRITICALITY ignore TYPE UC-ID
    ID id-SAI
                      CRITICALITY ignore TYPE SAI
                                                              PRESENCE mandatory } |
                      CRITICALITY ignore TYPE GA-Cell
    ID id-GA-Cell
                                                              PRESENCE optional } |
                       CRITICALITY ignore TYPE C-RNTI
                                                                 PRESENCE mandatory
    ID id-C-RNTI
    ID id-S-RNTI
                            CRITICALITY ignore TYPE S-RNTI
                                                                  PRESENCE mandatory
                                                                  PRESENCE optional
    ID id-D-RNTI
                            CRITICALITY ignore TYPE D-RNTI
    ID id-PropagationDelay
                                                                 PRESENCE mandatory
                            CRITICALITY ignore TYPE PropagationDelay
    ID id-STTD-SupportIndicator
                                     CRITICALITY ignore TYPE STTD-SupportIndicator PRESENCE mandatory }
    ID id-L3-Information
                               CRITICALITY ignore TYPE L3-Information PRESENCE mandatory } |
    ID id-CN-PS-DomainIdentifier
                                  CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                            PRESENCE optional
    ID id-CN-CS-DomainIdentifier
                                  CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                            PRESENCE optional }
                                                                             PRESENCE optional },
                                  CRITICALITY ignore TYPE URA-Information
    ID id-URA-Information
   . . .
UplinkSignallingTransferIndicationFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ID id-GA-CellAdditionalShapes
                                  CRITICALITY ignore EXTENSION GA-CellAdditionalShapes PRESENCE optional }
    ID id-DPC-Mode-Change-SupportIndicator CRITICALITY ignore EXTENSION
                                                                  DPC-Mode-Change-SupportIndicator
                                                                                               PRESENCE optional }
    ID id-CommonTransportChannelResourcesInitialisationNotRequired CRITICALITY ignore EXTENSION
CommonTransportChannelResourcesInitialisationNotRequired
                                                  PRESENCE optional }
    PRESENCE optional }
    ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD-LCR
                                                                                        PRESENCE optional },
-- UPLINK SIGNALLING TRANSFER INDICATION TDD
  ******************
UplinkSignallingTransferIndicationTDD ::= SEQUENCE {
   protocolIEs
                            ProtocolIE-Container
                                                  {{UplinkSignallingTransferIndicationTDD-IEs}},
                            ProtocolExtensionContainer {{UplinkSignallingTransferIndicationTDD-Extensions}}
   protocolExtensions
                                                                                                         OPTIONAL,
UplinkSignallingTransferIndicationTDD-IES RNSAP-PROTOCOL-IES ::= {
    ID id-UC-ID
                   CRITICALITY ignore TYPE UC-ID
                                                                 PRESENCE mandatory }
   { ID id-SAI
                       CRITICALITY ignore TYPE SAI
                                                              PRESENCE mandatory }
```

```
ID id-GA-Cell
                             CRITICALITY ignore TYPE GA-Cell
                                                                         PRESENCE optional } |
     ID id-C-RNTI
                                CRITICALITY ignore TYPE C-RNTI
                                                                            PRESENCE mandatory
     ID id-S-RNTI
                                CRITICALITY ignore TYPE S-RNTI
                                                                            PRESENCE mandatory
     ID id-D-RNTI
                                CRITICALITY ignore TYPE D-RNTI
                                                                            PRESENCE optional
     ID id-RxTimingDeviationForTA
                                        CRITICALITY ignore TYPE RxTimingDeviationForTA PRESENCE mandatory }
     ID id-L3-Information
                                    CRITICALITY ignore TYPE L3-Information
                                                                                   PRESENCE mandatory }
     ID id-CN-PS-DomainIdentifier
                                       CRITICALITY ignore TYPE CN-PS-DomainIdentifier
                                                                                        PRESENCE optional }
     ID id-CN-CS-DomainIdentifier
                                        CRITICALITY ignore TYPE CN-CS-DomainIdentifier
                                                                                         PRESENCE optional }
   { ID id-URA-Information
                                        CRITICALITY ignore TYPE URA-Information
                                                                                           PRESENCE optional },
UplinkSignallingTransferIndicationTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-GA-CellAdditionalShapes
                                       CRITICALITY ignore EXTENSION GA-CellAdditionalShapes
                                                                                              PRESENCE optional }
     ID id-CommonTransportChannelResourcesInitialisationNotRequired
                                                                 CRITICALITY ignore EXTENSION
CommonTransportChannelResourcesInitialisationNotRequired
                                                          PRESENCE optional }|
     PRESENCE optional
     ID id-CellCapabilityContainer-TDD
                                       CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD
                                                                                                 PRESENCE optional }
    ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD-LCR
                                                                                                      PRESENCE optional },
        ****************
-- DOWNLINK SIGNALLING TRANSFER REQUEST
  ****************
DownlinkSignallingTransferRequest ::= SEOUENCE {
                                                         {{DownlinkSignallingTransferRequest-IEs}},
   protocolIEs
                                ProtocolIE-Container
   protocolExtensions
                                ProtocolExtensionContainer {{DownlinkSignallingTransferRequest-Extensions}}
                                                                                                                      OPTIONAL.
DownlinkSignallingTransferRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-C-ID
                                CRITICALITY ignore TYPE C-ID
                                                                            PRESENCE mandatory
                                CRITICALITY ignore TYPE D-RNTI
                                                                            PRESENCE mandatory
     ID id-D-RNTI
     ID id-L3-Information
                                    CRITICALITY ignore TYPE L3-Information
                                                                                    PRESENCE mandatory
     ID id-D-RNTI-ReleaseIndication
                                       CRITICALITY ignore TYPE D-RNTI-ReleaseIndication
                                                                                           PRESENCE mandatory },
   . . .
DownlinkSignallingTransferRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- RELOCATION COMMIT
RelocationCommit ::= SEQUENCE {
                                                         {{RelocationCommit-IEs}},
   protocolIEs
                                 ProtocolIE-Container
```

```
ProtocolExtensionContainer {{RelocationCommit-Extensions}}
   protocolExtensions
                                                                                                OPTIONAL,
RelocationCommit-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-D-RNTI
                              CRITICALITY ignore TYPE D-RNTI
                                                                       PRESENCE optional } |
   PRESENCE optional },
RelocationCommit-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- PAGING REQUEST
  PagingRequest ::= SEQUENCE {
   protocolIEs
                              ProtocolIE-Container
                                                      {{PagingRequest-IEs}},
                              ProtocolExtensionContainer {{PagingRequest-Extensions}}
   protocolExtensions
                                                                                              OPTIONAL,
   . . .
PagingRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-PagingArea-PagingRqst
                                     CRITICALITY ignore TYPE PagingArea-PagingRqst
                                                                                   PRESENCE mandatory } |
     ID id-SRNC-ID
                              CRITICALITY ignore TYPE RNC-ID
                                                                       PRESENCE mandatory
    ID id-S-RNTI
                              CRITICALITY ignore TYPE S-RNTI
                                                                       PRESENCE mandatory
                                                                       PRESENCE mandatory }
    ID id-IMSI
                              CRITICALITY ignore TYPE IMSI
    ID id-DRXCycleLengthCoefficient CRITICALITY ignore TYPE DRXCycleLengthCoefficient
                                                                                                PRESENCE mandatory
   ID id-CNOriginatedPage-PagingRqst
                                   CRITICALITY ignore TYPE CNOriginatedPage-PagingRqst
                                                                                                PRESENCE optional
   . . .
PagingArea-PagingRqst ::= CHOICE {
   uRA
                       URA-PagingRgst,
   cell
                       Cell-PagingRgst,
   . . .
URA-PagingRqst ::= SEQUENCE {
   uRA-ID
                           URA-ID,
   iE-Extensions
                           ProtocolExtensionContainer { { URAItem-PagingRqst-ExtIEs} } OPTIONAL,
URAItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Cell-PagingRqst ::= SEQUENCE {
   c-ID
                           C-ID,
```

```
ProtocolExtensionContainer { { CellItem-PagingRgst-ExtIEs} } OPTIONAL,
   iE-Extensions
CellItem-PagingRgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CNOriginatedPage-PagingRgst::= SEQUENCE {
   pagingCause
                            PagingCause,
   cNDomainType
                            CNDomainType,
   pagingRecordType
                            PagingRecordType,
                            ProtocolExtensionContainer { { CNOriginatedPage-PagingRqst-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
CNOriginatedPage-PagingRgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PagingRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
       ****************
-- DEDICATED MEASUREMENT INITIATION REQUEST
  ******************
DedicatedMeasurementInitiationRequest ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{DedicatedMeasurementInitiationRequest-IEs}},
   protocolExtensions
                               ProtocolExtensionContainer {{DedicatedMeasurementInitiationRequest-Extensions}}
                                                                                                                       OPTIONAL,
DedicatedMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-MeasurementID
                                   CRITICALITY reject TYPE MeasurementID
                                                                                 PRESENCE mandatory }
   -- This IE represents both the Dedicated Measurement Object Type IE and the choice based on the Dedicated Measurement Object Type
   -- as described in the tabular message format in subclause 9.1.
     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
     ID id-CFNReportingIndicator
                                       CRITICALITY reject TYPE FNReportingIndicator
                                                                                       PRESENCE mandatory
     ID id-CFN
                                       CRITICALITY reject TYPE CFN
                                                                                       PRESENCE optional
   . . .
DedicatedMeasurementObjectType-DM-Rqst ::= CHOICE {
   rL
                        RL-DM-Rqst,
   rLS
                        RL-Set-DM-Rgst,
   allRL
                        All-RL-DM-Rqst,
   allRLS
                        All-RL-Set-DM-Rgst,
```

```
RL-DM-Rqst ::= SEQUENCE {
   rL-InformationList-DM-Rgst
                                 RL-InformationList-DM-Rgst,
                                  ProtocolExtensionContainer { { RLItem-DM-Rqst-ExtIEs} } OPTIONAL,
   iE-Extensions
RLItem-DM-Rgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-DM-Rgst
                                         ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rqst-IEs} }
RL-Information-DM-Rgst-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rqst
                                         CRITICALITY reject TYPE RL-InformationItem-DM-Rqst
                                                                                               PRESENCE mandatory }
RL-InformationItem-DM-Rqst ::= SEQUENCE {
   rI.-ID
                             RL-ID,
   dPCH-ID
                             DPCH-ID
                                         OPTIONAL,
                                 ProtocolExtensionContainer { {RL-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
RL-InformationItem-DM-Rgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-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 RNSAP-PROTOCOL-EXTENSION ::= {
                                             ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-
RL-Set-InformationList-DM-Rqst
Rqst-IEs} }
RL-Set-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
    PRESENCE mandatory }
RL-Set-InformationItem-DM-Rqst ::= SEQUENCE {
   rL-Set-ID
                                 RL-Set-ID,
                                 ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rqst-ExtIEs} } OPTIONAL,
   iE-Extensions
RL-Set-InformationItem-DM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
All-RL-DM-Rgst ::= NULL
All-RL-Set-DM-Rgst ::= NULL
DedicatedMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- DEDICATED MEASUREMENT INITIATION RESPONSE
         DedicatedMeasurementInitiationResponse ::= SEQUENCE
                                                     {{DedicatedMeasurementInitiationResponse-IEs}},
   protocolIEs
                             ProtocolIE-Container
                             ProtocolExtensionContainer {{DedicatedMeasurementInitiationResponse-Extensions}}
   protocolExtensions
                                                                                                                OPTIONAL,
DedicatedMeasurementInitiationResponse-IES RNSAP-PROTOCOL-IES ::= {
    ID id-MeasurementID
                       CRITICALITY ignore TYPE MeasurementID
                                                                            PRESENCE mandatory }
    { ID id-CriticalityDiagnostics
                              CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                 PRESENCE optional },
DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
                       RL-DM-Rsp,
   rLS
                       RL-Set-DM-Rsp,
   allRL
                       RL-DM-Rsp,
   allRLS
                       RL-Set-DM-Rsp,
   . . .
RL-DM-Rsp ::= SEQUENCE {
   rL-InformationList-DM-Rsp
                             RL-InformationList-DM-Rsp,
                              ProtocolExtensionContainer { { RLItem-DM-Rsp-ExtIEs} } OPTIONAL,
   iE-Extensions
RLItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-DM-Rsp ::= SEQUENCE {
   rL-Set-InformationList-DM-Rsp
                             RL-Set-InformationList-DM-Rsp,
                              ProtocolExtensionContainer { { RL-SetItem-DM-Rsp-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
```

```
RL-SetItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-DM-Rsp
                                         ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rsp-IEs} }
RL-Information-DM-Rsp-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationItem-DM-Rsp
                                         CRITICALITY ignore TYPE RL-InformationItem-DM-Rsp PRESENCE mandatory }
RL-InformationItem-DM-Rsp ::= SEQUENCE {
                              RL-ID,
   dPCH-ID
                              DPCH-ID
                                                 OPTIONAL,
   dedicatedMeasurementValue
                                     DedicatedMeasurementValue,
                              CFN
                                                 OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
RL-InformationItem-DM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-DM-Rsp
                                             ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-Rsp-
IEs} }
RL-Set-Information-DM-Rsp-IEs RNSAP-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,
   cFN
                                                            OPTIONAL,
   iE-Extensions
                                  ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rspns-ExtIEs} } OPTIONAL,
RL-Set-InformationItem-DM-Rspns-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- DEDICATED MEASUREMENT INITIATION FAILURE
   ************************
DedicatedMeasurementInitiationFailure ::= SEQUENCE {
                                                           {{DedicatedMeasurementInitiationFailure-IEs}},
   protocolIEs
                                 ProtocolIE-Container
```

```
ProtocolExtensionContainer {{DedicatedMeasurementInitiationFailure-Extensions}}
   protocolExtensions
                                                                                                                           OPTIONAL,
DedicatedMeasurementInitiationFailure-IEs RNSAP-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 },
DedicatedMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
      -- DEDICATED MEASUREMENT REPORT
__ *********************
DedicatedMeasurementReport ::= SEQUENCE {
                                                          {{DedicatedMeasurementReport-IEs}},
   protocolIEs
                                ProtocolIE-Container
   protocolExtensions
                                ProtocolExtensionContainer {{DedicatedMeasurementReport-Extensions}}
                                                                                                                 OPTIONAL,
DedicatedMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-MeasurementID
                                    CRITICALITY ignore TYPE MeasurementID
                                                                                    PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rprt CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rprt PRESENCE mandatory },
   . . .
DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
                         RL-DM-Rprt,
   rLS
                         RL-Set-DM-Rprt,
   allRL
                         RL-DM-Rprt,
   allRLS
                         RL-Set-DM-Rprt,
RL-DM-Rprt ::= SEQUENCE {
                                 RL-InformationList-DM-Rprt,
   rL-InformationList-DM-Rprt
                                 ProtocolExtensionContainer { { RLItem-DM-Rprt-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
RLItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-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 RNSAP-PROTOCOL-EXTENSION ::= {
RL-InformationList-DM-Rprt
                                         ::= SEOUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container { {RL-Information-DM-Rprt-IEs} }
RL-Information-DM-Rprt-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-RL-InformationItem-DM-Rprt
                                         CRITICALITY ignore TYPE RL-InformationItem-DM-Rprt
                                                                                               PRESENCE mandatory }
RL-InformationItem-DM-Rprt ::= SEQUENCE {
   rL-ID
   4PCH-TD
                              DPCH-ID
                                                 OPTIONAL,
   dedicatedMeasurementValueInformation
                                         DedicatedMeasurementValueInformation,
                                  ProtocolExtensionContainer { {RL-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
RL-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RL-Set-InformationList-DM-Rprt
                                           ::= SEQUENCE (SIZE (1..maxNrOfRLSets)) OF ProtocolIE-Single-Container { {RL-Set-Information-DM-
Rprt-IEs} }
RL-Set-Information-DM-Rprt-IEs RNSAP-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,
   dedicatedMeasurementValueInformation DedicatedMeasurementValueInformation.
   iE-Extensions
                                 ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
RL-Set-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- DEDICATED MEASUREMENT TERMINATION REQUEST
__ ********************************
DedicatedMeasurementTerminationRequest ::= SEQUENCE {
```

```
{{DedicatedMeasurementTerminationRequest-IEs}},
   protocolIEs
                                ProtocolIE-Container
   protocolExtensions
                                ProtocolExtensionContainer {{DedicatedMeasurementTerminationRequest-Extensions}}
                                                                                                                        OPTIONAL,
DedicatedMeasurementTerminationRequest-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-MeasurementID
                                   CRITICALITY ignore TYPE MeasurementID
                                                                                  PRESENCE mandatory },
DedicatedMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *******************
  DEDICATED MEASUREMENT FAILURE INDICATION
    DedicatedMeasurementFailureIndication ::= SEQUENCE {
   protocolIEs
                                                        {{DedicatedMeasurementFailureIndication-IEs}},
                                ProtocolExtensionContainer {{DedicatedMeasurementFailureIndication-Extensions}}
   protocolExtensions
                                                                                                                       OPTIONAL,
   . . .
DedicatedMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-MeasurementID
                                   CRITICALITY ignore TYPE MeasurementID
                                                                                  PRESENCE mandatory }
    { ID id-Cause
                                                                           PRESENCE mandatory },
                               CRITICALITY ignore TYPE Cause
DedicatedMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   -- COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
__ *******************************
CommonTransportChannelResourcesReleaseRequest ::= SEQUENCE {
                                                        {{CommonTransportChannelResourcesReleaseRequest-IEs}},
   protocolIEs
                               ProtocolIE-Container
                                ProtocolExtensionContainer {{CommonTransportChannelResourcesReleaseRequest-Extensions}}
   protocolExtensions
OPTIONAL,
CommonTransportChannelResourcesReleaseRequest-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-D-RNTI
                               CRITICALITY ignore TYPE D-RNTI
                                                                           PRESENCE mandatory },
   . . .
```

```
CommonTransportChannelResourcesReleaseRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  COMMON TRANSPORT CHANNEL RESOURCES REQUEST
CommonTransportChannelResourcesRequest ::= SEQUENCE
    protocolIEs
                                    ProtocolIE-Container
                                                               {{CommonTransportChannelResourcesRequest-IEs}},
                                    ProtocolExtensionContainer {{CommonTransportChannelResourcesRequest-Extensions}}
   protocolExtensions
                                                                                                                            OPTIONAL,
    . . .
CommonTransportChannelResourcesRequest-IES RNSAP-PROTOCOL-IES ::= {
     ID id-D-RNTI
                                   CRITICALITY reject TYPE D-RNTI
                                                                                    PRESENCE mandatory
     ID id-C-ID
                                   CRITICALITY reject TYPE C-ID
                                                                                    PRESENCE optional
     ID id-TransportBearerRequestIndicator
                                                CRITICALITY reject TYPE TransportBearerRequestIndicator
                                                                                                             PRESENCE mandatory } |
     ID id-TransportBearerID
                                        CRITICALITY reject TYPE TransportBearerID
                                                                                                PRESENCE mandatory },
    . . .
CommonTransportChannelResourcesRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Permanent-NAS-UE-Identity
                                                                                                                      PRESENCE optional } |
                                                    CRITICALITY ignore
                                                                                EXTENSION Permanent-NAS-UE-Identity
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                BindingID PRESENCE
                                                                                                                    optional }
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                           CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
                                                                                                           PRESENCE
                                                                                                                      optional },
    -- Shall be ignored if bearer establishment with ALCAP.
  COMMON TRANSPORT CHANNEL RESOURCES RESPONSE FDD
CommonTransportChannelResourcesResponseFDD ::= SEQUENCE {
    protocolIEs
                                    ProtocolIE-Container
                                                               {{CommonTransportChannelResourcesResponseFDD-IEs}},
    protocolExtensions
                                    ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseFDD-Extensions}}
                                                                                                                               OPTIONAL,
    . . .
CommonTransportChannelResourcesResponseFDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-S-RNTI
                                   CRITICALITY ignore TYPE S-RNTI
                                                                                    PRESENCE mandatory
     ID id-C-RNTI
                                   CRITICALITY ignore TYPE C-RNTI
                                                                                    PRESENCE optional
     ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD CRITICALITY ignore TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD
    PRESENCE mandatory } |
     ID id-TransportLayerAddress
                                           CRITICALITY ignore TYPE TransportLayerAddress
                                                                                                  PRESENCE optional } |
     ID id-BindingID
                                    CRITICALITY ignore TYPE BindingID
                                                                                        PRESENCE optional }
    { ID id-CriticalityDiagnostics
                                           CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                  PRESENCE optional },
```

```
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD ::= SEQUENCE {
    fACH-FlowControlInformation
                                   FACH-FlowControlInformation-CTCH-ResourceRspFDD,
    iE-Extensions
                                   ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs} } OPTIONAL,
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FACH-FlowControlInformation-CTCH-ResourceRspFDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD }}
FACH-FlowControlInformationIEs-CTCH-ResourceRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-FACH-FlowControlInformation CRITICALITY ignore TYPE
                                                                 FACH-FlowControlInformation PRESENCE mandatory }
CommonTransportChannelResourcesResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-C-ID
                               CRITICALITY ignore
                                                       EXTENSION C-ID
                                                                               PRESENCE mandatory },
    . . .
  COMMON TRANSPORT CHANNEL RESOURCES RESPONSE TDD
CommonTransportChannelResourcesResponseTDD ::= SEQUENCE {
    protocolIEs
                                   ProtocolIE-Container
                                                               {{CommonTransportChannelResourcesResponseTDD-IEs}},
                                   ProtocolExtensionContainer {{CommonTransportChannelResourcesResponseTDD-Extensions}}
    protocolExtensions
                                                                                                                              OPTIONAL,
    . . .
CommonTransportChannelResourcesResponseTDD-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-S-RNTI
                                   CRITICALITY ignore TYPE S-RNTI
                                                                                   PRESENCE mandatory
     ID id-C-RNTI
                                   CRITICALITY ignore TYPE C-RNTI
                                                                                   PRESENCE optional
     ID id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD CRITICALITY ignore TYPE FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD
    PRESENCE mandatory } |
     ID id-TransportLayerAddress
                                           CRITICALITY ignore TYPE TransportLayerAddress
                                                                                                 PRESENCE optional } |
     ID id-BindingID
                                   CRITICALITY ignore TYPE BindingID
                                                                                       PRESENCE optional } |
    { ID id-CriticalityDiagnostics
                                           CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                                 PRESENCE optional },
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD ::= SEOUENCE
    fACH-FlowControlInformation
                                   FACH-FlowControlInformation-CTCH-ResourceRspTDD,
                                   ProtocolExtensionContainer { {FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
FACH-FlowControlInformation-CTCH-ResourceRspTDD ::= ProtocolIE-Single-Container {{ FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD }}
FACH-FlowControlInformationIEs-CTCH-ResourceRspTDD RNSAP-PROTOCOL-IES ::= {
   { ID id-FACH-FlowControlInformation CRITICALITY ignore TYPE FACH-FlowControlInformation PRESENCE mandatory }
CommonTransportChannelResourcesResponseTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
   { ID id-C-ID
                            CRITICALITY ignore
                                                 EXTENSION C-ID
                                                                       PRESENCE mandatory },
  -- COMMON TRANSPORT CHANNEL RESOURCES FAILURE
  *******************
CommonTransportChannelResourcesFailure ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{CommonTransportChannelResourcesFailure-IEs}},
                               ProtocolExtensionContainer {{CommonTransportChannelResourcesFailure-Extensions}}
   protocolExtensions
                                                                                                              OPTIONAL,
CommonTransportChannelResourcesFailure-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-S-RNTI
                               CRITICALITY ignore TYPE S-RNTI
                                                                          PRESENCE mandatory
     ID id-Cause
                               CRITICALITY ignore TYPE Cause
                                                                          PRESENCE mandatory
   ID id-CriticalityDiagnostics
                                       CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                       PRESENCE optional },
CommonTransportChannelResourcesFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
-- COMPRESSED MODE COMMAND
__ ********************
CompressedModeCommand ::= SEQUENCE {
   protocolIEs
                               ProtocolIE-Container
                                                        {{CompressedModeCommand-IEs}},
                               ProtocolExtensionContainer {{CompressedModeCommand-Extensions}}
   protocolExtensions
                                                                                                         OPTIONAL,
CompressedModeCommand-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-Active-Pattern-Sequence-Information
                                             CRITICALITY ignore TYPE Active-Pattern-Sequence-Information
                                                                                                       PRESENCE mandatory },
CompressedModeCommand-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

```
-- ERROR INDICATION
__ **********************
ErrorIndication ::= SEOUENCE {
   protocolIEs
                                ProtocolIE-Container
                                                         {{ErrorIndication-IEs}},
                                ProtocolExtensionContainer {{ErrorIndication-Extensions}}
   protocolExtensions
                                                                                                     OPTIONAL,
ErrorIndication-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-Cause
                                CRITICALITY ignore TYPE Cause
                                                                            PRESENCE optional }
   ID id-CriticalityDiagnostics
                                       CRITICALITY ignore TYPE CriticalityDiagnostics
                                                                                        PRESENCE optional },
   . . .
ErrorIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
                     CRITICALITY ignore EXTENSION S-RNTI
                                                                                   PRESENCE optional } |
     ID id-S-RNTI
                               CRITICALITY ignore EXTENSION D-RNTI
                                                                                   PRESENCE optional }.
   { ID id-D-RNTI
-- COMMON MEASUREMENT INITIATION REQUEST
  ***************
CommonMeasurementInitiationRequest ::= SEQUENCE {
   protocolIEs
                ProtocolIE-Container
                                              {{CommonMeasurementInitiationRequest-IEs}},
   protocolExtensions ProtocolExtensionContainer {{CommonMeasurementInitiationRequest-Extensions}}
                                                                                                   OPTIONAL.
CommonMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
          id-MeasurementID
   { ID
                                                      CRITICALITY reject
                                                                               TYPE
                                                                                       MeasurementID
                                                                                                                      PRESENCE
   mandatory } |
   { ID
          id-CommonMeasurementObjectType-CM-Rqst
                                                      CRITICALITY reject
                                                                               TYPE
                                                                                       CommonMeasurementObjectType-CM-Rqst
                                                                                                                           PRESENCE
   -- 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
                                                                                       CommonMeasurementType
                                                                                                                      PRESENCE
   mandatory }|
          id-MeasurementFilterCoefficient
                                                      CRITICALITY reject
                                                                               TYPE
                                                                                       MeasurementFilterCoefficient
                                                                                                                      PRESENCE optional
   } |
          id-ReportCharacteristics
   { ID
                                                      CRITICALITY reject
                                                                               TYPE
                                                                                       ReportCharacteristics
                                                                                                                      PRESENCE
   mandatory } |
   { ID
          id-SFNReportingIndicator
                                                      CRITICALITY reject
                                                                               TYPE
                                                                                       FNReportingIndicator
                                                                                                                      PRESENCE
   mandatory
```

```
ID
           id-SFN
                                                          CRITICALITY reject
                                                                                     TYPE
                                                                                                                               PRESENCE optional
                                                                                             SFN
     ID
           id-CommonMeasurementAccuracy
                                                          CRITICALITY reject
                                                                                     TYPE
                                                                                             CommonMeasurementAccuracy
                                                                                                                               PRESENCE optional
CommonMeasurementInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementObjectType-CM-Rgst ::= CHOICE {
   cell
                                   Cell-CM-Rast,
    . . .
Cell-CM-Rast ::= SEQUENCE {
   uC-ID
                                   UC-ID,
   timeSlot
                                   TimeSlot
                                                  OPTIONAL,
                                                              --3.84Mcps TDD only
    timeSlotLCR
                                   TimeSlotLCR
                                                  OPTIONAL,
                                                             --1.28Mcps TDD only
   neighbouringCellMeasurementInformation
                                                  SEQUENCE (SIZE (1..maxNrOfMeasNCell)) OF
       CHOICE
               neighbouringFDDCellMeasurementInformation
                                                              NeighbouringFDDCellMeasurementInformation,
               neighbouringTDDCellMeasurementInformation
                                                              NeighbouringTDDCellMeasurementInformation,
               extension-neighbouringCellMeasurementInformation
                                                                  Extension-neighbouringCellMeasurementInformation
                                   ProtocolExtensionContainer { { CellItem-CM-Rgst-ExtIEs} }
    iE-Extensions
                                                                                               OPTIONAL,
Extension-neighbouringCellMeasurementInformation ::= ProtocolIE-Single-Container {{ Extension-neighbouringCellMeasurementInformationIE }}
Extension-neighbouringCellMeasurementInformationIE NBAP-PROTOCOL-IES ::= {
    { ID id-neighbouringTDDCellMeasurementInformationLCR
                                                        CRITICALITY reject EXTENSION NeighbouringTDDCellMeasurementInformationLCR PRESENCE
mandatory },
    . . .
Cellitem-CM-Rqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  COMMON MEASUREMENT INITIATION RESPONSE
      CommonMeasurementInitiationResponse ::= SEQUENCE {
   protocolIEs
                           ProtocolIE-Container
                                                  {{CommonMeasurementInitiationResponse-IEs}},
   protocolExtensions
                           ProtocolExtensionContainer {{CommonMeasurementInitiationResponse-Extensions}}
                                                                                                          OPTIONAL,
    . . .
```

```
CommonMeasurementInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
           id-MeasurementID
                                                     CRITICALITY ignore
                                                                               TYPE
                                                                                       Measurement.ID
                                                                                                                           PRESENCE
   mandatory } |
           id-CommonMeasurementObjectType-CM-Rsp
     ID
                                                     CRITICALITY ignore
                                                                               TYPE
                                                                                       CommonMeasurementObjectType-CM-Rsp
                                                                                                                           PRESENCE optional
           id-SFN
     ID
                                                     CRITICALITY ignore
                                                                               TYPE
                                                                                                                           PRESENCE optional
     ID
           id-CriticalityDiagnostics
                                                     CRITICALITY ignore
                                                                               TYPE
                                                                                       CriticalityDiagnostics
                                                                                                                           PRESENCE optional
     ID
           id-CommonMeasurementAccuracy
                                                        CRITICALITY reject
                                                                                   TYPE
                                                                                           CommonMeasurementAccuracy
                                                                                                                           PRESENCE optional
    . . .
CommonMeasurementInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementObjectType-CM-Rsp ::= CHOICE {
   cell
                              Cell-CM-Rsp,
    . . .
Cell-CM-Rsp ::= SEQUENCE {
   commonMeasurementValue
                                             CommonMeasurementValue,
   iE-Extensions
                                             ProtocolExtensionContainer { { CellItem-CM-Rsp-ExtIEs} }
                                                                                                       OPTIONAL,
Cellitem-CM-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- COMMON MEASUREMENT INITIATION FAILURE
       CommonMeasurementInitiationFailure ::= SEQUENCE {
                                                 {{CommonMeasurementInitiationFailure-IEs}},
   protocolIEs
                          ProtocolIE-Container
                          ProtocolExtensionContainer {{CommonMeasurementInitiationFailure-Extensions}}
   protocolExtensions
                                                                                                        OPTIONAL,
    . . .
CommonMeasurementInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
           id-MeasurementID
                                         CRITICALITY
                                                         ignore
                                                                        TYPE
                                                                               MeasurementID
                                                                                                        PRESENCE mandatory
     ID
           id-Cause
                                         CRITICALITY
                                                         ignore
                                                                        TYPE
                                                                                                        PRESENCE mandatory
           id-CriticalityDiagnostics
                                                                                                        PRESENCE optional },
     ID
                                         CRITICALITY
                                                         ignore
                                                                        TYPE
                                                                               CriticalityDiagnostics
    . . .
```

```
CommonMeasurementInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ******************
-- COMMON MEASUREMENT REPORT
        CommonMeasurementReport ::= SEQUENCE {
                                               {{CommonMeasurementReport-IEs}},
   protocolIEs
                         ProtocolIE-Container
                        ProtocolExtensionContainer {{CommonMeasurementReport-Extensions}}
   protocolExtensions
                                                                                        OPTIONAL,
CommonMeasurementReport-IEs RNSAP-PROTOCOL-IES ::= {
          id-MeasurementID
                                                                            TYPE
                                                  CRITICALITY ignore
                                                                                   MeasurementID
                                                                                                                PRESENCE mandatory
          id-CommonMeasurementObjectType-CM-Rprt
                                                  CRITICALITY ignore
                                                                            TYPE
                                                                                   CommonMeasurementObjectType-CM-Rprt PRESENCE
   mandatory } |
   { ID
          id-SFN
                                                  CRITICALITY ignore
                                                                            TYPE
                                                                                   SFN
                                                                                                              PRESENCE optional },
   . . .
CommonMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
CommonMeasurementObjectType-CM-Rprt ::= CHOICE {
                                Cell-CM-Rprt,
   cell
   . . .
Cell-CM-Rprt ::= SEQUENCE {
   commonMeasurementValueInformation CommonMeasurementValueInformation,
   iE-Extensions
                                ProtocolExtensionContainer {{ CellItem-CM-Rprt-ExtIEs }}
                                                                                        OPTIONAL,
Cellitem-CM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  COMMON MEASUREMENT TERMINATION REQUEST
  *****************
CommonMeasurementTerminationRequest ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                               {{CommonMeasurementTerminationRequest-IEs}},
   protocolExtensions
                        ProtocolExtensionContainer {{CommonMeasurementTerminationRequest-Extensions}}
                                                                                                   OPTIONAL,
   . . .
```

```
CommonMeasurementTerminationRequest-IEs RNSAP-PROTOCOL-IES ::= {
          id-MeasurementID
                                   CRITICALITY
                                                                   TYPE
                                                                                            PRESENCE mandatory },
                                                                           MeasurementID
   . . .
CommonMeasurementTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- COMMON MEASUREMENT FAILURE INDICATION
          CommonMeasurementFailureIndication ::= SEQUENCE {
   protocolIEs
                        ProtocolIE-Container
                                              {{CommonMeasurementFailureIndication-IEs}},
                            ProtocolExtensionContainer {{CommonMeasurementFailureIndication-Extensions}}
   protocolExtensions
                                                                                                          OPTIONAL,
CommonMeasurementFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
    ID
          id-MeasurementID
                                   CRITICALITY ignore
                                                             TYPE
                                                                   MeasurementID
                                                                                       PRESENCE mandatory
   { ID
          id-Cause
                                   CRITICALITY ignore
                                                             TYPE
                                                                                       PRESENCE mandatory
                                                                    Cause
CommonMeasurementFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  -- INFORMATION EXCHANGE INITIATION REQUEST
  ************************
InformationExchangeInitiationRequest ::= SEQUENCE {
                                              {{InformationExchangeInitiationRequest-IEs}},
   protocolIEs
                        ProtocolIE-Container
                        ProtocolExtensionContainer {{InformationExchangeInitiationRequest-Extensions}}
   protocolExtensions
                                                                                                    OPTIONAL,
InformationExchangeInitiationRequest-IES RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                                     CRITICALITY reject
                                                                           TYPE
                                                                                  InformationExchangeID
                                                                                                                  PRESENCE mandatory
          id-InformationExchangeObjectType-InfEx-Rgst
                                                     CRITICALITY reject
                                                                           TYPE
                                                                                  InformationExchangeObjectType-InfEx-Rqst
   { ID
                                                                                                                          PRESENCE
   -- This IE represents both the Information Exchange Object Type IE and the choice based on the Information Exchange Object Type
   -- as described in the tabular message format in subclause 9.1.
   { ID
         id-InformationType
                                                     CRITICALITY reject
                                                                                  InformationType
                                                                           TYPE
                                                                                                                  PRESENCE mandatory
   } |
```

```
id-InformationReportCharacteristics
    { ID
                                                         CRITICALITY reject
                                                                                TYPE
                                                                                        InformationExchangeInitiationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rqst ::= CHOICE {
                                  Cell-InfEx-Rqst,
    . . .
Cell-InfEx-Rgst ::= SEQUENCE {
   c-ID
                                  C-ID,
   iE-Extensions
                                  ProtocolExtensionContainer { { CellItem-InfEx-Rqst-ExtIEs} }
CellItem-InfEx-Rgst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- INFORMATION EXCHANGE INITIATION RESPONSE
InformationExchangeInitiationResponse ::= SEQUENCE {
                                                  {{InformationExchangeInitiationResponse-IEs}},
                          ProtocolIE-Container
   protocolIEs
                          ProtocolExtensionContainer {{InformationExchangeInitiationResponse-Extensions}}
   protocolExtensions
                                                                                                            OPTIONAL,
InformationExchangeInitiationResponse-IEs RNSAP-PROTOCOL-IES ::= {
   { ID
           id-InformationExchangeID
                                                         CRITICALITY ignore
                                                                                    TYPE
                                                                                            InformationExchangeID
                                                                                                                             PRESENCE
   mandatory } |
   { ID
           id-InformationExchangeObjectType-InfEx-Rsp
                                                         CRITICALITY ignore
                                                                                    TYPE
                                                                                            InformationExchangeObjectType-InfEx-Rsp
                                                                                                                                      PRESENCE
   optional }
           id-CriticalityDiagnostics
                                                                                                                             PRESENCE optional
    { ID
                                                         CRITICALITY ignore
                                                                                    TYPE
                                                                                            CriticalityDiagnostics
InformationExchangeInitiationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rsp ::= CHOICE {
   cell
                              Cell-InfEx-Rsp,
```

```
Cell-InfEx-Rsp ::= SEQUENCE {
   requestedDataValue
                                RequestedDataValue,
                                ProtocolExtensionContainer { { CellItem-InfEx-Rsp-ExtIEs} }
   iE-Extensions
                                                                                           OPTIONAL,
Cellitem-InfEx-Rsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ****************
-- INFORMATION EXCHANGE INITIATION FAILURE
  InformationExchangeInitiationFailure ::= SEQUENCE {
                                              {{InformationExchangeInitiationFailure-IEs}},
   protocolIEs
                        ProtocolIE-Container
                         ProtocolExtensionContainer {{InformationExchangeInitiationFailure-Extensions}}
   protocolExtensions
                                                                                                     OPTIONAL,
   . . .
InformationExchangeInitiationFailure-IEs RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                              CRITICALITY
                                                             ignore
                                                                            TYPE
                                                                                   InformationExchangeID
                                                                                                                PRESENCE mandatory
          id-Cause
                                                                                                                PRESENCE mandatory
     ID
                                               CRITICALITY
                                                             ignore
                                                                            TYPE
                                                                                   Cause
          id-CriticalityDiagnostics
                                                                                   CriticalityDiagnostics
                                                                                                                PRESENCE optional },
   { ID
                                               CRITICALITY
                                                             ignore
                                                                            TYPE
   . . .
InformationExchangeInitiationFailure-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
-- INFORMATION REPORT
  *******************
InformationReport ::= SEQUENCE {
                                               {{InformationReport-IEs}},
   protocolIEs
                        ProtocolIE-Container
                        ProtocolExtensionContainer {{InformationReport-Extensions}}
   protocolExtensions
                                                                                       OPTIONAL,
InformationReport-IES RNSAP-PROTOCOL-IES ::= {
         id-InformationExchangeID
                                                                                       InformationExchangeID
                                                      CRITICALITY ignore
                                                                               TYPE
                                                                                                                              PRESENCE
   mandatory } |
         id-InformationExchangeObjectType-InfEx-Rprt
   { ID
                                                      CRITICALITY ignore
                                                                               TYPE
                                                                                       InformationExchangeObjectType-InfEx-Rprt
                                                                                                                              PRESENCE
   mandatory },
```

```
InformationReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeObjectType-InfEx-Rprt ::= CHOICE {
                               Cell-InfEx-Rprt,
   . . .
Cell-InfEx-Rprt ::= SEQUENCE {
   requestedDataValueInformation RequestedDataValueInformation,
   iE-Extensions
                               ProtocolExtensionContainer {{ CellItem-InfEx-Rprt-ExtIEs }}
                                                                                        OPTIONAL,
CellItem-InfEx-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
       -- INFORMATION EXCHANGE TERMINATION REQUEST
  ****************
InformationExchangeTerminationRequest ::= SEQUENCE
                       ProtocolIE-Container
                                             {{InformationExchangeTerminationRequest-IEs}},
   protocolIEs
   protocolExtensions
                       ProtocolExtensionContainer {{InformationExchangeTerminationRequest-Extensions}}
                                                                                                  OPTIONAL,
InformationExchangeTerminationRequest-IES RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                                                                                          PRESENCE mandatory },
   { ID
                                         CRITICALITY
                                                       ignore
                                                                                InformationExchangeID
   . . .
InformationExchangeTerminationRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    -- INFORMATION EXCHANGE FAILURE INDICATION
InformationExchangeFailureIndication ::= SEQUENCE {
                                            {{InformationExchangeFailureIndication-IEs}},
   protocolIEs
                        ProtocolIE-Container
```

```
ProtocolExtensionContainer {{InformationExchangeFailureIndication-Extensions}}
   protocolExtensions
                                                                                                                  OPTIONAL,
InformationExchangeFailureIndication-IEs RNSAP-PROTOCOL-IES ::= {
          id-InformationExchangeID
                                            CRITICALITY ignore
                                                                              InformationExchangeID
                                                                       TYPE
                                                                                                         PRESENCE mandatory
   { ID
          id-Cause
                                             CRITICALITY ignore
                                                                       TYPE
                                                                               Cause
                                                                                                         PRESENCE mandatory
   . . .
InformationExchangeFailureIndication-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  *****************
-- RESET REQUEST
  ******************
ResetRequest ::= SEQUENCE {
   protocolIEs
                          ProtocolIE-Container
                                                {{ResetRequest-IEs}},
                         ProtocolExtensionContainer {{ResetRequest-Extensions}}
   protocolExtensions
                                                                                  OPTIONAL,
   . . .
ResetRequest-IEs RNSAP-PROTOCOL-IES ::= {
     ID id-RNC-ID
                             CRITICALITY reject TYPE RNC-ID
                                                               PRESENCE mandatory}
    { ID id-ResetIndicator
                             CRITICALITY reject
                                                    TYPE ResetIndicator
                                                                               PRESENCE
                                                                                          mandatory },
ResetRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
ResetIndicator ::= CHOICE {
   context
                  ContextList-Reset,
   all-contexts
                      NULL,
   . . .
ContextList-Reset ::= SEQUENCE {
   contextInfoList-Reset
                              ContextInfoList-Reset,
                                         ProtocolExtensionContainer { ContextItem-Reset-ExtIEs} }
   iE-Extensions
                                                                                                    OPTIONAL,
ContextItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextInfoList-Reset ::= SEQUENCE (SIZE (1.. maxResetContext)) OF ProtocolIE-Single-Container {{ ContextInfoItemIE-Reset }}
```

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```
ContextInfoItemIE-Reset RNSAP-PROTOCOL-IES ::= {
   {ID id-ContextInfoItem-Reset
                                    CRITICALITY reject
                                                          TYPE ContextInfoItem-Reset
                                                                                       PRESENCE mandatory }
ContextInfoItem-Reset ::= SEQUENCE {
   contextType-Reset
                             ContextType-Reset,
   iE-Extensions
                            ProtocolExtensionContainer { { ContextInfoItem-Reset-ExtIEs} }
ContextInfoItem-Reset-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ContextType-Reset ::= CHOICE {
   sRNTI
                  S-RNTI,
                  D-RNTI,
   dRNTI
-- RESET RESPONSE
__ *********************
ResetResponse ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                               {{ResetResponse-IEs}},
                         ProtocolExtensionContainer {{ResetResponse-Extensions}}
   protocolExtensions
                                                                                       OPTIONAL,
ResetResponse-IEs RNSAP-PROTOCOL-IES ::= {
                            CRITICALITY ignore TYPE RNC-ID
   { ID id-RNC-ID
                                                              PRESENCE mandatory |
   { ID id-CriticalityDiagnostics
                                    CRITICALITY
                                                  ignore
                                                                    CriticalityDiagnostics
                                                                                              PRESENCE optional },
   . . .
ResetResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    *****************
-- RADIO LINK ACTIVATION COMMAND FDD
  ******************
RadioLinkActivationCommandFDD ::= SEQUENCE {
                                               {{RadioLinkActivationCommandFDD-IEs}},
   protocolIEs
                         ProtocolIE-Container
                         ProtocolExtensionContainer {{RadioLinkActivationCommandFDD-Extensions}}
   protocolExtensions
                                                                                                 OPTIONAL,
```

```
RadioLinkActivationCommandFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationList-RL-ActivationCmdFDD
                                                        CRITICALITY reject TYPE
                                                                                  DelayedActivationInformationList-RL-ActivationCmdFDD
   PRESENCE
              mandatory },
RadioLinkActivationCommandFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::=
DelayedActivationInformationList-RL-ActivationCmdFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {
    { DelayedActivationInformation-RL-ActivationCmdFDD-IEs} }
DelayedActivationInformation-RL-ActivationCmdFDD-IES RNSAP-PROTOCOL-IES ::= {
     ID id-DelayedActivationInformation-RL-ActivationCmdFDD
                                                           CRITICALITY reject TYPE DelayedActivationInformation-RL-ActivationCmdFDD PRESENCE
optional
DelayedActivationInformation-RL-ActivationCmdFDD ::= SEQUENCE {
                              RL-ID,
   delayed-activation-update DelayedActivationUpdate,
   iE-Extensions
                              ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs} } OPTIONAL,
DelayedActivationInformation-RL-ActivationCmdFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      -- RADIO LINK ACTIVATION COMMAND TDD
  *****************
RadioLinkActivationCommandTDD ::= SEQUENCE {
   protocolIEs
                         ProtocolIE-Container
                                                 {{RadioLinkActivationCommandTDD-IEs}},
                         ProtocolExtensionContainer {{RadioLinkActivationCommandTDD-Extensions}}
   protocolExtensions
                                                                                                    OPTIONAL,
RadioLinkActivationCommandTDD-IEs RNSAP-PROTOCOL-IES ::= {
   { ID id-DelayedActivationList-RL-ActivationCmdTDD
                                                        CRITICALITY reject TYPE
                                                                                  DelayedActivationInformationList-RL-ActivationCmdTDD
   PRESENCE
              mandatory },
   . . .
RadioLinkActivationCommandTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
DelayedActivationInformationList-RL-ActivationCmdTDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container
    { DelayedActivationInformation-RL-ActivationCmdTDD-IEs} }
```

```
DelayedActivationInformation-RL-ActivationCmdTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DelayedActivationInformation-RL-ActivationCmdTDD
                                                         CRITICALITY reject TYPE DelayedActivationInformation-RL-ActivationCmdTDD PRESENCE
optional }
DelayedActivationInformation-RL-ActivationCmdTDD ::= SEQUENCE {
   delayed-activation-update DelayedActivationUpdate,
   iE-Extensions
                             ProtocolExtensionContainer { { DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs} } OPTIONAL,
DelayedActivationInformation-RL-ActivationCmdTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- PRIVATE MESSAGE
  ····
PrivateMessage ::= SEQUENCE {
   privateIEs
               PrivateIE-Container {{PrivateMessage-IEs}},
PrivateMessage-IEs RNSAP-PRIVATE-IES ::= {
END
```

9.3.4 Information Element Definitions

```
maxIBSEG,
maxNoOfDSCHs.
maxNoOfUSCHs.
maxNoTFCIGroups,
maxNoCodeGroups,
maxNrOfDCHs,
maxNrOfDL-Codes.
maxNrOfDLTs,
maxNrOfDLTsLCR,
maxNrOfDPCHs,
maxNrOfDPCHsLCR,
maxNrOfErrors,
maxNrOfFDDNeighboursPerRNC,
maxNrOfMACcshSDU-Length,
maxNrOfNeighbouringRNCs,
maxNrOfTDDNeighboursPerRNC,
maxNrOfLCRTDDNeighboursPerRNC,
maxNrOfTS,
maxNrOfULTs,
maxNrOfULTsLCR,
maxNrOfGSMNeighboursPerRNC,
maxRateMatching,
maxNrOfPoints,
maxNoOfRB,
maxNrOfRLs,
maxNrOfTFCs,
maxNrOfTFs,
maxCTFC,
maxRNCinURA-1,
maxNrOfSCCPCHs,
maxTFCI1Combs,
maxTFCI2Combs,
maxTFCI2Combs-1,
maxTGPS,
maxTTI-Count,
maxNoGPSTypes,
maxNoSat,
maxNrOfHAROProc,
maxNrOfHSSCCHCodes,
maxNrOfMACdFlows,
maxNrOfMACdFlows-1,
maxNrOfPDUIndexes,
maxNrOfPDUIndexes-1,
maxNrOfPrioQueues,
maxNrOfPrioOueues-1,
id-Allowed-Rate-Information,
id-AntennaColocationIndicator,
id-BindingID,
id-Cell-Capacity-Class-Value,
id-Cell-Capacity-Class-Value-ThresholdInformation,
id-CellCapabilityContainer-FDD,
id-CellCapabilityContainer-TDD,
id-CellCapabilityContainer-TDD-LCR,
```

```
id-CoverageIndicator,
    id-DPC-Mode-Change-SupportIndicator,
    id-Guaranteed-Rate-Information.
    id-HCS-Prio.
    id-Load-Value.
    id-Load-Value-IncrDecrThres,
    id-Neighbouring-GSM-CellInformation,
    id-Neighbouring-UMTS-CellInformationItem,
    id-neighbouring-LCR-TDD-CellInformation,
    id-NRT-Load-Information-Value,
    id-NRT-Load-Information-Value-IncrDecrThres,
    id-OnModification,
    id-Received-Total-Wideband-Power-Value,
    id-Received-Total-Wideband-Power-Value-IncrDecrThres,
    id-RT-Load-Value.
    id-RT-Load-Value-IncrDecrThres,
    id-SFNSFNMeasurementThresholdInformation,
    id-TrafficClass,
    id-Transmitted-Carrier-Power-Value,
    id-Transmitted-Carrier-Power-Value-IncrDecrThres,
    id-TUTRANGPSMeasurementThresholdInformation.
    id-UL-Timeslot-ISCP-Value,
    id-UL-Timeslot-ISCP-Value-IncrDecrThres,
   maxNrOfLevels.
    maxNrOfMeasNCell,
    maxNrOfMeasNCell-1,
    id-MessageStructure,
    id-EnhancedDSCHPC,
    id-RestrictionStateIndicator,
    id-Rx-Timing-Deviation-Value-LCR,
    id-TransportLayerAddress,
    id-TypeOfError
FROM RNSAP-Constants
    Criticality,
    ProcedureID.
    ProtocolIE-ID,
    TransactionID,
    TriggeringMessage
FROM RNSAP-CommonDataTypes
    ProtocolIE-Single-Container{},
    ProtocolExtensionContainer{},
    RNSAP-PROTOCOL-IES,
    RNSAP-PROTOCOL-EXTENSION
FROM RNSAP-Containers;
-- A
Active-Pattern-Sequence-Information ::= SEQUENCE {
    cMConfigurationChangeCFN
    transmission-Gap-Pattern-Sequence-Status
                                               Transmission-Gap-Pattern-Sequence-Status-List
    iE-Extensions
                        ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
    . . .
```

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```
Active-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
AdjustmentPeriod
                         ::= INTEGER(1..256)
-- Unit Frame
AllocationRetentionPriority ::= SEQUENCE {
   priorityLevel
                   PriorityLevel,
   pre-emptionCapability
Pre-emptionCapability,
   pre-emptionVulnerability Pre-emptionVulnerability,
   iE-Extensions
                          ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
AllocationRetentionPriority-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Allowed-Rate-Information ::= SEQUENCE {
   allowed-UL-Rate Allowed-Rate OPTIONAL,
   allowed-DL-Rate
                          Allowed-Rate OPTIONAL,
                          ProtocolExtensionContainer { {Allowed-Rate-Information-ExtIEs} } OPTIONAL,
   iE-Extensions
Allowed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Allowed-Rate
                    ::= INTEGER (1..maxNrOfTFs)
AllowedQueuingTime
                    ::= INTEGER (1..60)
-- seconds
AlphaValue
                         ::= INTEGER (0..8)
-- Actual value = Alpha / 8
Angle-Of-Arrival-Value-LCR ::= SEQUENCE OF {
   aOA-LCR
                          AOA-LCR,
    aOA-LCR-Accuracy-Class AOA-LCR-Accuracy-Class,
                          ProtocolExtensionContainer { {Angle-Of-Arrival-Value-LCR-ExtIEs} } OPTIONAL,
   iE-Extensions
Angle-Of-Arrival-Value-LCR-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
AOA-LCR ::= INTEGER (0..719)
-- Angle Of Arrival for 1.28Mcps TDD
```

```
AOA-LCR-Accuracy-Class ::= ENUMERATED {a,b,c,d,e,f,g,h,...}
AntennaColocationIndicator ::= ENUMERATED {
    co-located,
    . . .
-- B
BadSatellites ::= SEQUENCE {
    badSatelliteInformation
                                SEQUENCE (SIZE (1..maxNoSat)) OF
       SEQUENCE {
           badSAT-ID
                                        SAT-ID,
           iE-Extensions
                                        ProtocolExtensionContainer { { BadSatelliteInformation-ExtIEs} }
                                                                                                              OPTIONAL,
       },
                                ProtocolExtensionContainer { { BadSatellites-ExtIEs} }
    iE-Extensions
                                                                                            OPTIONAL,
BadSatelliteInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
BadSatellites-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Band-Indicator ::= ENUMERATED {
    dcs1800Band,
   pcs1900Band,
BCC ::= BIT STRING (SIZE (3))
BCCH-ARFCN ::= INTEGER (0..1023)
BetaCD ::= INTEGER (0..15)
                       ::= OCTET STRING (SIZE (1..4,...))
-- If the Binding ID includes an UDP port, the UDP port is included in octet 1 and 2.
                       ::= INTEGER (-63..0)
BLER
-- Step 0.1 (Range -6.3..0). It is the Log10 of the BLER
SCTD-Indicator ::= ENUMERATED {
    active,
    inactive
BSIC ::= SEOUENCE {
    nCC
                NCC,
    bCC
                BCC
```

```
BurstModeParameters ::= SEQUENCE {
   burstStart
                 INTEGER (0..15),
    burstLength INTEGER (10..25),
                    INTEGER (1..16),
    burstFreq
    iE-Extensions
                                ProtocolExtensionContainer { { BurstModeParameters-ExtIEs} }
                                                                                                   OPTIONAL,
BurstModeParameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- C
Cause ::= CHOICE {
    radioNetwork
                        CauseRadioNetwork,
    transport
                        CauseTransport,
    protocol
                        CauseProtocol,
    misc
                        CauseMisc,
    . . .
CauseMisc ::= ENUMERATED {
    control-processing-overload,
    hardware-failure,
    om-intervention,
    not-enough-user-plane-processing-resources,
    unspecified,
    . . .
CauseProtocol ::= ENUMERATED {
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-scrambling-code-already-in-use,
    dl-radio-resources-not-available,
    ul-radio-resources-not-available,
    measurement-not-supported-for-the-object,
    combining-resources-not-available,
    combining-not-supported,
```

```
reconfiguration-not-allowed,
    requested-configuration-not-supported,
    synchronisation-failure.
    requested-tx-diversity-mode-not-supported,
    measurement-temporaily-not-available,
    unspecified,
    invalid-CM-settings,
    reconfiguration-CFN-not-elapsed,
    number-of-DL-codes-not-supported,
    dedicated-transport-channel-type-not-supported,
    dl-shared-channel-type-not-supported,
    ul-shared-channel-type-not-supported,
    common-transport-channel-type-not-supported,
    ul-spreading-factor-not-supported,
    dl-spreading-factor-not-supported,
    cm-not-supported,
    transaction-not-supported-by-destination-node-b,
    rl-already-activated-or-alocated,
    number-of-UL-codes-not-supported,
    cell-reserved-for-operator-use,
    dpc-mode-change-not-supported,
    information-temporarily-not-available,
    information-provision-not-supported-for-the-object,
    power-balancing-status-not-compatible,
    delayed-activation-not-supported,
    rl-timing-adjustment-not-supported
CauseTransport ::= ENUMERATED {
    transport-resource-unavailable,
    unspecified,
    . . .
CellCapabilityContainer-FDD ::= BIT STRING (SIZE (32))
-- First bit: Flexible Hard Split Support Indicator
-- Second bit: Delayed Activation Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
CellCapabilityContainer-TDD ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
CellCapabilityContainer-TDD-LCR ::= BIT STRING (SIZE (32))
-- First bit: Delayed Activation Support Indicator
-- Note that undefined bits are considered as a spare bit and spare bits shall be set to 0 by the transmitter and shall be ignored by the receiver.
C-ID
                        ::= INTEGER (0..65535)
CCTrCH-ID
                        ::= INTEGER (0..15)
Cell-Capacity-Class-Value ::= SEQUENCE {
        uplinkCellCapacityClassValue
                                            INTEGER(1..100,...),
```

```
downlinkCellCapacityClassValue
                                            INTEGER(1..100,...)
Cell-Capacity-Class-Value-ThresholdInformation ::= INTEGER(1..100,...)
CellIndividualOffset
                      ::= INTEGER (-20..20)
CellParameterID
                           ::= INTEGER (0..127,...)
CFN
                    ::= INTEGER (0..255)
CGI ::= SEQUENCE {
   lai
                SEQUENCE {
       pLMN-Identity PLMN-Identity,
       1AC
                                ProtocolExtensionContainer { {LAI-ExtIEs} } OPTIONAL,
       iE-Extensions
    сI
                    CI,
                           ProtocolExtensionContainer { (CGI-ExtIEs) } OPTIONAL
    iE-Extensions
LAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CGI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ChannelCodingType ::= ENUMERATED {
    no-codingTDD,
    convolutional-coding,
    turbo-coding,
    . . .
ChipOffset
                       ::= INTEGER (0..38399)
CI
                    ::= OCTET STRING (SIZE (2))
ClosedLoopModel-SupportIndicator
                                    ::= ENUMERATED
    closedLoop-Model-Supported,
    closedLoop-Model-not-Supported
ClosedLoopMode2-SupportIndicator
                                    ::= ENUMERATED
    closedLoop-Mode2-Supported,
    closedLoop-Mode2-not-Supported
Closedlooptimingadjustmentmode ::= ENUMERATED {
    adj-1-slot,
    adj-2-slot,
```

```
CodeNumber ::= INTEGER (0..maxCodeNumComp-1)
CodingRate ::= ENUMERATED {
   half,
    third,
CommonMeasurementAccuracy ::= CHOICE -
    tUTRANGPSMeasurementAccuracyClass
                                            TUTRANGPSAccuracyClass,
    . . .
CommonMeasurementType ::= ENUMERATED {
    uTRAN-GPS-timing-of-cell-frames-for-LCS,
    sFN-SFN-observerd-time-difference,
   load,
    transmitted-carrier-power,
    received-total-wide-band-power,
    uplink-timeslot-iscp,
    . . . ,
    rT-load,
    nRT-load-Information
CommonMeasurementValue ::= CHOICE {
    tUTRANGPSMeasurementValueInformation
                                            TUTRANGPSMeasurementValueInformation,
    sFNSFNMeasurementValueInformation
                                            SFNSFNMeasurementValueInformation,
    loadValue
                                        LoadValue,
    transmittedCarrierPowerValue
                                        INTEGER(0..100),
    receivedTotalWideBandPowerValue
                                        INTEGER(0..621),
    uplinkTimeslotISCPValue
                                        UL-TimeslotISCP,
    rTLoadValue
                                        RTLoadValue,
    nRTLoadInformationValue
                                        NRTLoadInformationValue
CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable
                                CommonMeasurementAvailable,
    measurementnotAvailable
                                NULL
CommonMeasurementAvailable::= SEQUENCE {
    commonMeasurementValue
                                CommonMeasurementValue,
                                    ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} }
    iE-Extensions
                                                                                                                   OPTIONAL,
CommonMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
CongestionCause ::= ENUMERATED {
    uTRAN-dynamic-resources,
    uTRAN-semistatic-resources,
CommonTransportChannelResourcesInitialisationNotRequired ::= ENUMERATED {
    not-Required
CoverageIndicator ::= ENUMERATED {
    overlap,
    covers,
    containedIn,
CRC-Size
                        ::= ENUMERATED {
    v0.
    v8.
   v12,
   v16,
    v24.
CriticalityDiagnostics ::= SEQUENCE {
    procedureID
                                ProcedureID
                                                     OPTIONAL,
                                TriggeringMessage
                                                         OPTIONAL,
    triggeringMessage
    procedureCriticality
                                Criticality
                                                         OPTIONAL,
    transactionID
                                TransactionID
                                                         OPTIONAL,
    iEsCriticalityDiagnostics
                                    CriticalityDiagnostics-IE-List OPTIONAL,
                                ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
CriticalityDiagnostics-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
       iECriticality
                                Criticality,
       iE-ID
                                ProtocolIE-ID,
                                RepetitionNumber0
       repetitionNumber
                                                         OPTIONAL,
                                ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } OPTIONAL,
       iE-Extensions
CriticalityDiagnostics-IE-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
   ID id-MessageStructure
                                CRITICALITY ignore
                                                         EXTENSION MessageStructure
                                                                                         PRESENCE optional } |
   ID id-TypeOfError
                                CRITICALITY ignore
                                                         EXTENSION TypeOfError
                                                                                         PRESENCE mandatory },
    . . .
```

```
MessageStructure ::= SEOUENCE (SIZE (1..maxNrOfLevels)) OF
    SEOUENCE {
        iE-ID
                                ProtocolIE-ID,
                                RepetitionNumber1
       repetitionNumber
                                                        OPTIONAL,
       iE-Extensions
                                ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
MessageStructure-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CN-CS-DomainIdentifier ::= SEQUENCE {
    pLMN-Identity
                        PLMN-Identity,
    lac
                        LAC,
                        ProtocolExtensionContainer { {CN-CS-DomainIdentifier-ExtIEs} } OPTIONAL
    iE-Extensions
CN-CS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CN-PS-DomainIdentifier ::= SEQUENCE {
    pLMN-Identity
                        PLMN-Identity,
    lac
                        LAC,
    rAC
    iE-Extensions
                        ProtocolExtensionContainer { {CN-PS-DomainIdentifier-ExtIEs} } OPTIONAL
CN-PS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
CNDomainType
                ::= ENUMERATED {
    cs-domain,
   ps-domain,
    dont-care,
-- See in [16]
C-RNTI
                        ::= INTEGER (0..65535)
-- D
DATA-ID ::= INTEGER (0..3)
DCH-FDD-Information
                       ::= SEOUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-FDD-InformationItem
DCH-FDD-InformationItem ::= SEQUENCE {
    payloadCRC-PresenceIndicator
                                        PayloadCRC-PresenceIndicator,
    ul-FP-Mode
                                        UL-FP-Mode,
```

```
ToAWS,
    toAWS
    t.oAWE
                                        TOAWE.
                                        DCH-Specific-FDD-InformationList,
    dCH-SpecificInformationList
    iE-Extensions
                                        ProtocolExtensionContainer { {DCH-FDD-InformationItem-ExtIEs} } OPTIONAL,
DCH-FDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-Specific-FDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-FDD-Item
DCH-Specific-FDD-Item ::= SEQUENCE {
    dCH-ID
                                        DCH-ID,
    trCH-SrcStatisticsDescr
                                        TrCH-SrcStatisticsDescr,
    ul-transportFormatSet
                                        TransportFormatSet,
    dl-transportFormatSet
                                        TransportFormatSet,
    ul-BLER
                                        BLER,
    dl-BLER
                                        BLER,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    frameHandlingPriority
                                        FrameHandlingPriority,
    qE-Selector
                                        QE-Selector,
    dRACControl
                                        DRACControl,
                                        ProtocolExtensionContainer { { DCH-FDD-SpecificItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-FDD-SpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                            PRESENCE optional } |
     ID id-TrafficClass
                               CRITICALITY ignore EXTENSION TrafficClass PRESENCE mandatory },
DCH-ID
                        ::= INTEGER (0..255)
DCH-InformationResponse ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem
DCH-InformationResponseItem ::= SEQUENCE {
    dCH-ID
                                DCH-ID,
    bindingID
                                BindingID
                                                        OPTIONAL,
    transportLayerAddress
                                TransportLayerAddress
                                                        OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {DCH-InformationResponseItem-ExtIEs} } OPTIONAL,
DCH-InformationResponseItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-Allowed-Rate-Information
                                            CRITICALITY ignore EXTENSION Allowed-Rate-Information
                                                                                                        PRESENCE optional },
    . . .
DCH-TDD-Information
                        ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-TDD-InformationItem
DCH-TDD-InformationItem ::= SEQUENCE {
```

```
payloadCRC-PresenceIndicator
                                        PayloadCRC-PresenceIndicator,
    ul-FP-Mode
                                        UL-FP-Mode.
    t.oAWS
                                        TOAWS.
    t.oAWE
                                        TOAWE,
    dCH-SpecificInformationList
                                        DCH-Specific-TDD-InformationList,
    iE-Extensions
                                        ProtocolExtensionContainer { {DCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    . . .
DCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DCH-Specific-TDD-InformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-Specific-TDD-Item
DCH-Specific-TDD-Item ::= SEQUENCE {
    dCH-ID
    ul-cCTrCH-ID
                                        CCTrCH-ID, -- UL CCTrCH in which the DCH is mapped
    dl-cCTrCH-ID
                                        CCTrCH-ID, -- DL CCTrCH in which the DCH is mapped
    trCH-SrcStatisticsDescr
                                        TrCH-SrcStatisticsDescr,
    ul-transportFormatSet
                                        TransportFormatSet,
    dl-transportFormatSet
                                        TransportFormatSet,
    ul-BLER
                                        BLER,
                                        BLER,
    dl-BLER
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    frameHandlingPriority
                                        FrameHandlingPriority,
    qE-Selector
                                        OE-Selector
    -- This IE shall be present if DCH is part of set of Co-ordinated DCHs
                                        ProtocolExtensionContainer { {DCH-Specific-TDD-Item-ExtIEs} } OPTIONAL,
    iE-Extensions
DCH-Specific-TDD-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                            PRESENCE optional } |
    { ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass PRESENCE mandatory).
    . . .
DedicatedMeasurementType ::= ENUMERATED {
    sir,
   sir-error,
    transmitted-code-power,
    rSCP,
    rx-timing-deviation,
   round-trip-time,
    rx-timing-deviation-LCR,
    angle-Of-Arrival-LCR
DedicatedMeasurementValue ::= CHOICE {
    sIR-Value
                        SIR-Value,
    sIR-ErrorValue
                            SIR-Error-Value,
    transmittedCodePowerValue Transmitted-Code-Power-Value,
```

```
RSCP-Value, -- TDD only
   rxTimingDeviationValue Rx-Timing-Deviation-Value, -- 3.84Mcps TDD only
   roundTripTime
                      Round-Trip-Time-Value, -- FDD only
    extension-DedicatedMeasurementValue
                                         Extension-DedicatedMeasurementValue
Extension-DedicatedMeasurementValue ::= ProtocolIE-Single-Container {{ Extension-DedicatedMeasurementValueIE }}
Extension-DedicatedMeasurementValueIE RNSAP-PROTOCOL-IES ::= {
     { ID id-Angle-Of-Arrival-Value-LCR CRITICALITY reject EXTENSION Angle-Of-Arrival-Value-LCR PRESENCE mandatory },
DedicatedMeasurementValueInformation ::= CHOICE {
                             DedicatedMeasurementAvailable,
   measurementAvailable
   measurementnotAvailable
                             DedicatedMeasurementnotAvailable
DedicatedMeasurementAvailable::= SEQUENCE {
   dedicatedmeasurementValue
                                 DedicatedMeasurementValue,
                                 ProtocolExtensionContainer { { DedicatedMeasurementAvailableItem-ExtIEs} } }
   ie-Extensions
                                                                                                           OPTIONAL,
DedicatedMeasurementAvailableItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DedicatedMeasurementnotAvailable ::= NULL
DelayedActivation ::= CHOICE {
                          CFN,
    separate-indication
                          NULL
DelayedActivationUpdate ::= CHOICE {
   activate
                  Activate-Info,
   deactivate
                  Deactivate-Info
Activate-Info ::= SEQUENCE {
   activation-type
                          Execution-Type,
   initial-dl-tx-power
                          DL-Power,
   firstRLS-Indicator
                         FirstRLS-Indicator
                                                                                  OPTIONAL, --FDD Only
   propagation-delay
                         PropagationDelay
                                                                                  OPTIONAL, --FDD Only
                          ProtocolExtensionContainer { { Activate-Info-ExtIEs} }
   iE-Extensions
                                                                                  OPTIONAL,
Activate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
Deactivate-Info ::= SEOUENCE {
   deactivation-type
                         Execution-Type,
                         ProtocolExtensionContainer { { Deactivate-Info-ExtIEs} }
   iE-Extensions
                                                                                  OPTIONAL,
Deactivate-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Execution-Type ::= CHOICE {
   synchronised
   unsynchronised NULL
DeltaSIR
                    ::= INTEGER (0..30)
-- Step 0.1 dB, Range 0..3 dB.
DGPSCorrections ::= SEQUENCE {
   qPSTOW
                                       GPSTOW,
   qPS-Status-Health
                                       GPS-Status-Health,
   satellite-DGPSCorrections-Information
                                       SEQUENCE (SIZE (1..maxNoSat)) OF
       SEOUENCE {
          sAT-ID
                                           SAT-ID,
                                           BIT STRING (SIZE (8)),
          iode-dgps
          uDRE
                                           UDRE,
                                           PRC.
          range-Correction-Rate
                                           Range-Correction-Rate,
          iE-Extensions
                                           ProtocolExtensionContainer { { Satellite-DGPSCorrections-Information-ExtIEs} }
                                                                                                                    OPTIONAL,
   iE-Extensions
                                OPTIONAL,
Satellite-DGPSCorrections-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
DGPSCorrections-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DGPSThreshold ::= SEQUENCE {
   pRCDeviation
   iE-Extensions
                     OPTIONAL,
```

```
DGPSThreshold-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DiversityControlField
                               ::= ENUMERATED {
    may,
   must.
    must-not
DiversityMode
                           ::= ENUMERATED {
   none,
    sTTD,
    closedLoopModel,
    closedLoopMode2,
DL-DPCH-SlotFormat
                           ::= INTEGER (0..16,...)
DL-DPCH-TimingAdjustment ::= ENUMERATED {
    timing-advance,
    timing-delay
DL-Power
                        ::= INTEGER (-350..150)
-- Value = DL-Power / 10
-- Unit dB, Range -35dB .. +15dB, Step 0.1dB
DL-PowerBalancing-Information ::= SEQUENCE {
    powerAdjustmentType
                                        PowerAdjustmentType,
    dLReferencePower
                                        DL-Power
                                                       OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common'
    dLReferencePowerList-DL-PC-Rqst
                                        DL-ReferencePowerInformationList
    -- This IE shall be present if Power Adjustment Type IE equals to 'Individual'
                                                                OPTIONAL,
    maxAdjustmentStep
                                        MaxAdjustmentStep
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentPeriod
                                       AdjustmentPeriod
                                                               OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
    adjustmentRatio
                                        ScaledAdjustmentRatio OPTIONAL,
    -- This IE shall be present if Power Adjustment Type IE equals to 'Common' or 'Individual'
                                        ProtocolExtensionContainer { { DL-PowerBalancing-Information-ExtIEs } } OPTIONAL,
    iE-Extensions
DL-PowerBalancing-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-ReferencePowerInformationList
                                       ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF DL-ReferencePowerInformationItem
DL-ReferencePowerInformationItem ::= SEQUENCE {
   rL-ID
                                RL-ID,
```

```
dl-Reference-Power
    iE-Extensions
                                ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
DL-ReferencePowerInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-PowerBalancing-ActivationIndicator ::= ENUMERATED {
    dL-PowerBalancing-Activated
DL-PowerBalancing-UpdatedIndicator ::= ENUMERATED {
    dL-PowerBalancing-Updated
DL-ReferencePowerInformationList
                                        ::= SEOUENCE (SIZE (1..maxNrOfRLs)) OF DL-ReferencePowerInformationItem
DL-ReferencePowerInformationItem ::= SEQUENCE {
    rI.-ID
                                RL-ID,
    dl-Reference-Power
    iE-Extensions
                                ProtocolExtensionContainer { {DL-ReferencePowerInformationItem-ExtIEs} } OPTIONAL,
    . . .
DL-ReferencePowerInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-ReferencePowerInformation
                               ::= SEQUENCE {
    common-DL-ReferencePowerInformation
                                                DL-Power
                                                                OPTIONAL,
    individual-DL-ReferencePowerInformation
                                                DL-ReferencePowerInformationList
                                                                                         OPTIONAL,
                                                ProtocolExtensionContainer { { DL-ReferencePowerInformation-ExtIEs } } OPTIONAL,
    iE-Extensions
    . . .
DL-ReferencePowerInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
D-RNTI
                        ::= INTEGER (0..1048575)
D-RNTI-ReleaseIndication ::= ENUMERATED {
   release-D-RNTI,
    not-release-D-RNTI
DL-ScramblingCode
                            ::= INTEGER (0..15)
DL-FrameType ::= ENUMERATED {
    typeA,
    typeB,
    . . .
```

```
DL-Timeslot-Information ::= SEOUENCE ( SIZE (1..maxNrOfTS)) OF DL-Timeslot-InformationItem
DL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot
    midambleShiftAndBurstType
                                   MidambleShiftAndBurstType,
    tFCI-Presence
                                   TFCI-Presence,
    dL-Code-Information
                                   TDD-DL-Code-Information,
                                   ProtocolExtensionContainer { {DL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1.. maxNrOfDLTsLCR)) OF DL-TimeslotLCR-InformationItem
DL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR
                                           TimeSlotLCR,
    midambleShiftLCR
                                           MidambleShiftLCR,
    tFCI-Presence
                                           TFCI-Presence,
    dL-Code-LCR-Information
                                       TDD-DL-Code-LCR-Information,
    iE-Extensions
                                           ProtocolExtensionContainer { { DL-TimeslotLCR-InformationItem-ExtIEs} }
                                                                                                                      OPTIONAL,
DL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfDLTs)) OF DL-TimeSlot-ISCP-InfoItem
DL-TimeSlot-ISCP-InfoItem ::= SEOUENCE {
    timeSlot
                               TimeSlot,
    dL-TimeslotISCP
                               DL-TimeslotISCP,
                               ProtocolExtensionContainer { { DL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeSlot-ISCP-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDLTsLCR)) OF DL-TimeSlot-ISCP-LCR-InfoItem
DL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR
                                   TimeSlotLCR,
    dL-TimeslotISCP
                                   DL-TimeslotISCP,
                                   ProtocolExtensionContainer { { DL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} } OPTIONAL,
    iE-Extensions
```

```
DL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
DL-TimeslotISCP
                        ::= INTEGER (0..91)
-- According to mapping in [24]
Downlink-Compressed-Mode-Method
                                    ::= ENUMERATED
    puncturing,
    sFdiv2,
   higher-layer-scheduling,
DPC-Mode ::= ENUMERATED {
   mode0,
   mode1,
DPC-Mode-Change-SupportIndicator ::= ENUMERATED {
   dPC-ModeChangeSupported
DPCH-ID
                        ::= INTEGER (0..239)
DPCHConstantValue ::= INTEGER (-10..10)
-- Unit dB, Step 1dB
DRACControl
                ::= ENUMERATED {
    requested,
    not-requested
DRXCycleLengthCoefficient
                                        ::= INTEGER (3..9)
-- See in [16]
DSCH-FDD-Information::= SEQUENCE {
    dSCH-Specific-Information
                                        DSCH-Specific-FDD-Item,
    pdSCH-RL-ID
                                        RL-ID,
    tFCS
                                        TFCS,
                                        ProtocolExtensionContainer { {DSCH-FDD-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-FDD-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-EnhancedDSCHPC
                                        CRITICALITY ignore EXTENSION EnhancedDSCHPC
                                                                                                     PRESENCE optional },
    . . .
DSCH-RNTI ::= INTEGER (0..65535)
DSCH-Specific-FDD-Item ::= SEQUENCE {
    dsch-ID
                                        DSCH-ID,
```

```
trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr,
    transportFormatSet
                                        TransportFormatSet,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
                                        BLER.
                                        ProtocolExtensionContainer { {DSCH-Specific-FDD-Item-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-Specific-FDD-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                 PRESENCE mandatory}
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                     EXTENSION
                                                                                 BindingID
                                                                                                  PRESENCE
                                                                                                                      optional }|
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                     EXTENSION
                                                                                 TransportLaverAddress
                                                                                                            PRESENCE
                                                                                                                        optional }.
    -- Shall be ignored if bearer establishment with ALCAP.
DSCH-FDD-InformationResponse ::= SEQUENCE
    dsch-Specific-InformationResponse
                                        DSCH-Specific-FDD-InformationResponse,
    pdSCHCodeMapping
                                        PDSCHCodeMapping,
    iE-Extensions
                                        ProtocolExtensionContainer { { DSCH-FDD-InformationResponse-ExtIEs} } OPTIONAL,
DSCH-FDD-InformationResponse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
DSCH-Specific-FDD-InformationResponse ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCH-Specific-FDD-Response-Item
DSCH-Specific-FDD-Response-Item ::= SEQUENCE {
    dsch-ID
                                    DSCH-ID,
    dSCH-FlowControlInformation
                                    DSCH-FlowControlInformation,
    bindingID
                                    BindingID
                                                             OPTIONAL,
    transportLayerAddress
                                    TransportLayerAddress OPTIONAL,
    iE-Extensions
                                     ProtocolExtensionContainer { {DSCH-Specific-FDD-Response-Item-ExtIEs} } OPTIONAL,
{\tt DSCH-Specific-FDD-Response-Item-Extles} \ \ {\tt RNSAP-PROTOCOL-EXTENSION} \ ::= \ \{
DSCH-FlowControlInformation ::= SEOUENCE (SIZE(1..16)) OF DSCH-FlowControlItem
DSCH-FlowControlItem ::= SEOUENCE {
    dSCH-SchedulingPriority
                                        SchedulingPriorityIndicator,
    mAC-c-sh-SDU-Lengths
                                        MAC-c-sh-SDU-LengthList,
                                        ProtocolExtensionContainer { {DSCH-FlowControlItem-ExtIEs} } OPTIONAL,
    iE-Extensions
DSCH-FlowControlItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
DSCH-ID
                       ::= INTEGER (0..255)
DSCH-TDD-Information ::= SEOUENCE (SIZE (1..maxNoOfDSCHs)) OF DSCH-TDD-InformationItem
DSCH-TDD-InformationItem ::= SEQUENCE {
    dscH-TD
                                        DSCH-ID,
    dl-ccTrCHID
                                        CCTrCH-ID, -- DL CCTrCH in which the DSCH is mapped
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr,
    transportFormatSet
                                        TransportFormatSet,
                                        AllocationRetentionPriority,
    allocationRetentionPriority
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    bler
    iE-Extensions
                                        ProtocolExtensionContainer { {DSCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    . . .
DSCH-TDD-InformationItem-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                PRESENCE mandatory}
    ID id-BindingID
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                BindingID
                                                                                                                    optional }|
                                                                                               PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
                                                                                                           PRESENCE
                                                                                                                       optional }.
    -- Shall be ignored if bearer establishment with ALCAP.
-- E
EnhancedDSCHPC ::= SEQUENCE {
    enhancedDSCHPCWnd EnhancedDSCHPCWnd,
    enhancedDSCHPCCounter EnhancedDSCHPCCounter,
    enhancedDSCHPowerOffset EnhancedDSCHPowerOffset,
EnhancedDSCHPCCounter ::= INTEGER (1..50)
EnhancedDSCHPCIndicator ::= ENUMERATED {
    enhancedDSCHPCActiveInTheUE,
    enhancedDSCHPCNotActiveInTheUE
EnhancedDSCHPCWnd ::= INTEGER (1..10)
EnhancedDSCHPowerOffset ::= INTEGER (-15..0)
Enhanced-PrimaryCPICH-EcNo
                                    ::= INTEGER (0..49)
EventA ::= SEQUENCE {
    measurementTreshold
                            MeasurementThreshold,
    measurementHysteresisTime MeasurementHysteresisTime
                                                                OPTIONAL,
    iE-Extensions
                            ProtocolExtensionContainer { {EventA-ExtIEs} } OPTIONAL,
```

```
EventA-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventB ::= SEQUENCE {
   measurementTreshold
                           MeasurementThreshold,
    measurementHysteresisTime MeasurementHysteresisTime
                                                               OPTIONAL,
                           ProtocolExtensionContainer { {EventB-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
EventB-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventC ::= SEQUENCE {
    measurementIncreaseDecreaseThreshold
                                          MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime
                               MeasurementChangeTime,
                           ProtocolExtensionContainer { {EventC-ExtIEs} } OPTIONAL,
    iE-Extensions
EventC-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventD ::= SEQUENCE {
    measurementIncreaseDecreaseThreshold MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime
                               MeasurementChangeTime,
                           ProtocolExtensionContainer { {EventD-ExtIEs} } OPTIONAL,
    iE-Extensions
EventD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
EventE ::= SEQUENCE {
    measurementThreshold1
                               MeasurementThreshold,
    measurementThreshold2
                               MeasurementThreshold
                                                               OPTIONAL,
    measurementHysteresisTime MeasurementHysteresisTime
                                                               OPTIONAL,
    reportPeriodicity
                           ReportPeriodicity
                                                       OPTIONAL,
    iE-Extensions
                           ProtocolExtensionContainer { {EventE-ExtIEs} } OPTIONAL,
EventE-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
```

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```
EventF ::= SEQUENCE {
   measurement.Threshold1
                               MeasurementThreshold,
   measurementThreshold2
                               Measurement.Threshold
                                                                OPTIONAL.
    measurementHysteresisTime MeasurementHysteresisTime
                                                                OPTIONAL,
    reportPeriodicity
                           ReportPeriodicity
                                                        OPTIONAL,
                           ProtocolExtensionContainer { {EventF-ExtIEs} } OPTIONAL,
    iE-Extensions
EventF-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FACH-FlowControlInformation ::= SEQUENCE (SIZE (1..16)) OF FACH-FlowControlInformationItem
FACH-FlowControlInformationItem ::= SEQUENCE {
                                   SchedulingPriorityIndicator,
    fACH-SchedulingPriority
                                   MAC-c-sh-SDU-LengthList,
    mAC-c-sh-SDU-Lengths
    fACH-InitialWindowSize
                                   FACH-InitialWindowSize,
                                   ProtocolExtensionContainer { {FACH-FlowControlInformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
FACH-FlowControlInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FACH-InitialWindowSize
                               ::= INTEGER { unlimited(255) } (0..255)
-- Number of frames MAC-c-sh SDUs.
-- 255 = Unlimited number of FACH data frames
FACH-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfFACHs)) OF FACH-InformationItem
FACH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                    TransportFormatSet,
                                   ProtocolExtensionContainer { { FACH-InformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
FACH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FACH-PCH-InformationList ::= SEQUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem
FACH-PCH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                   TransportFormatSet,
                                   ProtocolExtensionContainer { { FACH-PCH-InformationItem-ExtIEs} } OPTIONAL,
   iE-Extensions
FACH-PCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
FDD-DCHs-to-Modify
                                ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifyItem
FDD-DCHs-to-ModifyItem ::= SEQUENCE {
    ul-FP-Mode
                                        UL-FP-Mode
                                                        OPTIONAL.
    toAWS
                                        ToAWS
                                                    OPTIONAL,
    toawe.
                                        TOAWE
                                                    OPTIONAL,
                                        TransportBearerRequestIndicator,
    transportBearerRequestIndicator
    dCH-SpecificInformationList
                                        FDD-DCHs-to-ModifySpecificInformationList,
                                        ProtocolExtensionContainer { {FDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL,
    iE-Extensions
FDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
FDD-DCHs-to-ModifySpecificInformationList ::= SEOUENCE (SIZE (1..maxNrOfDCHs)) OF FDD-DCHs-to-ModifySpecificItem
FDD-DCHs-to-ModifySpecificItem ::= SEQUENCE {
    dCH-ID
                                    DCH-ID,
    ul-TransportformatSet
                                    TransportFormatSet
                                                            OPTIONAL,
    dl-TransportformatSet
                                    TransportFormatSet
                                                            OPTIONAL,
    allocationRetentionPriority
                                    AllocationRetentionPriority
                                                                    OPTIONAL,
    frameHandlingPriority
                                    FrameHandlingPriority
                                                                OPTIONAL,
    dRACControl
                                    DRACControl
                                                    OPTIONAL,
                                    ProtocolExtensionContainer { {FDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
    iE-Extensions
FDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                            PRESENCE optional }
     ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                 PRESENCE optional }
    . . .
FDD-DL-ChannelisationCodeNumber
                                    ::= INTEGER (0..511)
-- According to the mapping in [27]. The maximum value is equal to the DL spreading factor -1--
FDD-DL-CodeInformation ::= SEQUENCE (SIZE (1...maxNrOfDL-Codes)) OF FDD-DL-CodeInformationItem
FDD-DL-CodeInformationItem ::= SEQUENCE {
    dl-ScramblingCode
                                                                DL-ScramblingCode,
                                                                FDD-DL-ChannelisationCodeNumber,
    fDD-DL-ChannelisationCodeNumber
    transmission-Gap-Pattern-Sequence-ScramblingCode-Information
                                                                        Transmission-Gap-Pattern-Sequence-ScramblingCode-Information OPTIONAL,
                                            ProtocolExtensionContainer { {FDD-DL-CodeInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
FDD-DL-CodeInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
FDD-S-CCPCH-Offset
                            ::= INTEGER (0..149)
FDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-size0-5,
    step-sizel,
    step-size1-5,
    step-size2,
SchedulingPriorityIndicator
                                        ::= INTEGER { lowest(0), highest(15) } (0..15)
FirstRLS-Indicator ::= ENUMERATED {
    first-RLS,
    not-first-RLS
FNReportingIndicator ::= ENUMERATED {
    fN-reporting-required,
    fN-reporting-not-required
                                ::= INTEGER { lowest(0), highest(15) } (0..15)
FrameHandlingPriority
FrameOffset
                        ::= INTEGER (0..255)
-- Frames
-- G
GapLength
                        ::= INTEGER (1..14)
-- Unit Slot
GapDuration
                        ::= INTEGER (1..144,...)
-- Unit Frame
GA-Cell ::= SEQUENCE (SIZE (1..maxNrOfPoints)) OF
    SEOUENCE {
        cell-GAIgeographicalCoordinate
                                            GeographicalCoordinate,
                                ProtocolExtensionContainer { {GA-Cell-ExtIEs} } OPTIONAL,
        iE-Extensions
GA-Cell-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
GA-CellAdditionalShapes ::= CHOICE {
    pointWithUncertainty
                                                     GA-PointWithUnCertainty,
    pointWithUncertaintyEllipse
                                                     GA-PointWithUnCertaintyEllipse,
    pointWithAltitude
                                                     GA-PointWithAltitude,
    pointWithAltitudeAndUncertaintyEllipsoid
                                                     GA-PointWithAltitudeAndUncertaintyEllipsoid,
    ellipsoidArc
                                                     GA-EllipsoidArc,
    . . .
```

```
GA-AltitudeAndDirection ::= SEQUENCE {
    directionOfAltitude
                            ENUMERATED {height, depth},
    altitude
                            INTEGER (0..32767),
    . . .
GA-EllipsoidArc ::= SEQUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    innerRadius
                                INTEGER (0..65535),
    uncertaintyRadius
                                INTEGER (0..127),
    offsetAngle
                                INTEGER (0..179),
    includedAngle
                                INTEGER (0..179),
    confidence
                                INTEGER (0..127),
    iE-Extensions
                                ProtocolExtensionContainer { { GA-EllipsoidArc-ExtIEs} } OPTIONAL,
    . . .
GA-EllipsoidArc-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithAltitude ::= SEOUENCE {
    geographicalCoordinates
                                GeographicalCoordinate,
    altitudeAndDirection
                                GA-AltitudeAndDirection,
    iE-Extensions
                                ProtocolExtensionContainer { { GA-PointWithAltitude-ExtIEs} } OPTIONAL,
GA-PointWithAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithAltitudeAndUncertaintyEllipsoid ::= SEQUENCE {
                                GeographicalCoordinate,
    geographicalCoordinates
    altitudeAndDirection
                                GA-AltitudeAndDirection,
                                GA-UncertaintyEllipse,
    uncertaintyEllipse
    uncertaintyAltitude
                                INTEGER (0..127),
    confidence
                                INTEGER (0..127),
                                ProtocolExtensionContainer { { GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs} } OPTIONAL,
    iE-Extensions
GA-PointWithAltitudeAndUncertaintyEllipsoid-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-PointWithUnCertaintyEllipse ::= SEQUENCE {
                                GeographicalCoordinate,
    geographicalCoordinates
    uncertaintyEllipse
                                GA-UncertaintyEllipse,
    confidence
                                INTEGER (0..127),
    iE-Extensions
                                ProtocolExtensionContainer { GA-PointWithUnCertaintyEllipse-ExtIEs} } OPTIONAL,
    . . .
```

```
GA-PointWithUnCertaintyEllipse-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-UncertaintyEllipse ::= SEQUENCE {
   uncertaintySemi-major
                              INTEGER (0..127),
   uncertaintySemi-minor
                              INTEGER (0..127),
   orientationOfMajorAxis
                              INTEGER (0..179),
GA-PointWithUnCertainty ::=SEQUENCE {
   geographicalCoordinates
                              GeographicalCoordinate,
   iE-Extensions
                       ProtocolExtensionContainer { {GA-PointWithUnCertainty-ExtIEs} } OPTIONAL,
   uncertaintyCode
                          INTEGER (0..127)
GA-PointWithUnCertainty-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GA-AccessPointPosition ::= SEOUENCE {
   geographicalCoordinate
                              GeographicalCoordinate,
   iE-Extensions
                     ProtocolExtensionContainer { {GA-AccessPoint-ExtIEs} } OPTIONAL,
GA-AccessPoint-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GeographicalCoordinate ::= SEQUENCE {
   latitude
                    INTEGER (0..8388607),
   longitude
                    INTEGER (-8388608..8388607),
   iE-Extensions
                        ProtocolExtensionContainer { {GeographicalCoordinate-ExtIEs} } OPTIONAL,
GeographicalCoordinate-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Almanac ::= SEQUENCE {
   wn<sub>a</sub>-alm
                          BIT STRING (SIZE (8)),
   satellite-Almanac-Information
                                     SEQUENCE (SIZE (1..maxNoSat)) OF
       SEQUENCE {
           data-id
                            DATA-ID,
           sAT-ID
                            SAT-ID,
           qps-e-alm
                        BIT STRING (SIZE (10))
BIT STRING (SIZE (8)),
                              BIT STRING (SIZE (16)),
           gps-toa-alm
           gps-delta-I-alm BIT STRING (SIZE (16)),
```

```
omegadot-alm
                                BIT STRING (SIZE (16)),
            svhealth-alm
                                BIT STRING (SIZE (8)),
            qps-a-sqrt-alm
                                BIT STRING (SIZE (24)),
            omegazero-alm
                                BIT STRING (SIZE (24)),
            m-zero-alm
                                BIT STRING (SIZE (24)),
            qps-omega-alm
                                BIT STRING (SIZE (24)),
            qps-af-zero-alm
                                BIT STRING (SIZE (11)),
            qps-af-one-alm
                                BIT STRING (SIZE (11)),
           iE-Extensions
                                ProtocolExtensionContainer { { Satellite-Almanac-Information-ExtIEs} } 
                                                                                                            OPTIONAL,
    sVGlobalHealth-alm
                            BIT STRING (SIZE (364))
                                                         OPTIONAL,
                            ProtocolExtensionContainer { GPS-Almanac-ExtIEs} }
                                                                                         OPTIONAL,
    iE-Extensions
    . . .
Satellite-Almanac-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Almanac-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPSInformation ::= SEQUENCE (SIZE (1..maxNoGPSTypes)) OF
    SEQUENCE ·
                                ENUMERATED {
        qPSInformationItem
            gPS-NavigationModel-and-TimeRecovery,
            qPS-Ionospheric-Model,
           gPS-UTC-Model,
           qPS-Almanac,
           gPS-RealTime-Integrity,
            . . .
                                ProtocolExtensionContainer { GPSInformation-ExtIEs} }
       iE-Extensions
                                                                                             OPTIONAL,
-- This IE shall be present if the Information Type IE indicates 'GPS Information'
GPSInformation-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Ionospheric-Model ::= SEQUENCE {
    alpha-zero-ionos
                           BIT STRING (SIZE (8)),
    alpha-one-ionos
                           BIT STRING (SIZE (8)),
                     BIT STRING (SIZE (8)),
BIT STRING (SIZE (8)),
    alpha-two-ionos
    alpha-three-ionos
                           BIT STRING (SIZE (8)),
    beta-zero-ionos
                           BIT STRING (SIZE (8)),
    beta-one-ionos
                            BIT STRING (SIZE (8)),
    beta-two-ionos
                            BIT STRING (SIZE (8)),
    beta-three-ionos
                            BIT STRING (SIZE (8)),
    iE-Extensions
                            ProtocolExtensionContainer { GPS-Ionospheric-Model-ExtIEs} }
                                                                                                 OPTIONAL,
    . . .
```

```
GPS-Ionospheric-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-NavigationModel-and-TimeRecovery ::= SEOUENCE (SIZE (1..maxNoSat)) OF
   SEQUENCE {
       tx-tow-nav
                                       INTEGER (0..1048575),
       sAT-ID
                                       SAT-ID,
       tlm-message-nav
                                      BIT STRING (SIZE (14)),
       tlm-revd-c-nav
                                      BIT STRING (SIZE (2)),
       ho-word-nav
                                      BIT STRING (SIZE (22)),
       w-n-nav
                                      BIT STRING (SIZE (10)),
       ca-or-p-on-12-nav
                                      BIT STRING (SIZE (2)),
       user-range-accuracy-index-nav BIT STRING (SIZE (4)),
       sv-health-nav
                                      BIT STRING (SIZE (6)),
       iodc-nav
                                      BIT STRING (SIZE (10)),
       12-p-dataflag-nav
                                      BIT STRING (SIZE (1)),
       sfl-reserved-nav
                                      BIT STRING (SIZE (87)),
       t-gd-nav
                                      BIT STRING (SIZE (8)),
       t-oc-nav
                                      BIT STRING (SIZE (16)),
       a-f-2-nav
                                      BIT STRING (SIZE (8)),
       a-f-1-nav
                                      BIT STRING (SIZE (16)),
       a-f-zero-nav
                                      BIT STRING (SIZE (22)),
       c-rs-nav
                                      BIT STRING (SIZE (16)),
       delta-n-nav
                                      BIT STRING (SIZE (16)),
       m-zero-nav
                                      BIT STRING (SIZE (32)),
       c-uc-nav
                                      BIT STRING (SIZE (16)),
       gps-e-nav
                                      BIT STRING (SIZE (32)),
       c-us-nav
                                      BIT STRING (SIZE (16)),
                                      BIT STRING (SIZE (32)),
       a-sqrt-nav
       t-oe-nav
                                      BIT STRING (SIZE (16)),
       fit-interval-flag-nav
                                      BIT STRING (SIZE (1)),
       aodo-nav
                                      BIT STRING (SIZE (5)),
       c-ic-nav
                                      BIT STRING (SIZE (16)),
       omega-zero-nav
                                      BIT STRING (SIZE (32)),
       c-is-nav
                                      BIT STRING (SIZE (16)),
       i-zero-nav
                                      BIT STRING (SIZE (32)),
       c-rc-nav
                                      BIT STRING (SIZE (16)),
       gps-omega-nav
                                      BIT STRING (SIZE (32)),
       omegadot-nav
                                      BIT STRING (SIZE (24)),
       idot-nav
                                      BIT STRING (SIZE (14)),
                                      BIT STRING (SIZE (20)),
       spare-zero-fill
       iE-Extensions
                                      ProtocolExtensionContainer { { GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs} }
GPS-NavigationModel-and-TimeRecoveryItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-RealTime-Integrity ::= CHOICE {
   badSatellites
                               BadSatellites
```

```
noBadSatellite
                                NULL
GPS-RX-POS ::= SEQUENCE {
    geographicalCoordinate
                                GeographicalCoordinate,
    altitudeAndDirection
                                GA-AltitudeAndDirection,
    iE-Extensions
                                ProtocolExtensionContainer { GPS-RX-POS-ExtIEs} } OPTIONAL,
GPS-RX-POS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
GPS-Status-Health ::= ENUMERATED {
  udre-1-0,
  udre-0-75,
  udre-0-5,
  udre-0-3,
  udre-0-1,
  no-data,
  invalid-data
GPSTOW ::= INTEGER (0..604799)
GPS-UTC-Model ::= SEQUENCE {
    a-one-utc
                           BIT STRING (SIZE (24)),
    a-zero-utc
                           BIT STRING (SIZE (32)),
    t-ot-utc
                           BIT STRING (SIZE (8)),
    delta-t-ls-utc
                           BIT STRING (SIZE (8)),
    w-n-t-utc
                           BIT STRING (SIZE (8)),
    w-n-lsf-utc
                           BIT STRING (SIZE (8)),
                           BIT STRING (SIZE (8)),
    dn-utc
    delta-t-lsf-utc
                           BIT STRING (SIZE (8)),
                           ProtocolExtensionContainer { GPS-UTC-Model-ExtIEs} }
    iE-Extensions
                                                                                        OPTIONAL,
GPS-UTC-Model-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Guaranteed-Rate-Information ::= SEQUENCE {
    guaranteed-UL-Rate
                               Guaranteed-Rate OPTIONAL,
    guaranteed-DL-Rate
                                Guaranteed-Rate OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {Guaranteed-Rate-Information-ExtIEs} } OPTIONAL,
Guaranteed-Rate-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
Guaranteed-Rate
                        ::= INTEGER (1..maxNrOfTFs)
-- H
HARO-FDD-InfoList ::= SEQUENCE (SIZE (1..maxNrOfHAROProc)) OF HARO-FDD-InfoItem
HARO-FDD-InfoItem ::= SEOUENCE {
   process-Memory-Size
                                        INTEGER (1..172800,...),
   iE-Extensions
                                        ProtocolExtensionContainer { { HARQ-FDD-InfoItem-ExtIEs } }
                                                                                                            OPTIONAL,
HARQ-FDD-Infoitem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HARO-TDD-InfoList ::= SEQUENCE (SIZE (1..maxNrOfHAROProc)) OF HARO-TDD-InfoItem
HARO-TDD-InfoItem ::= SEQUENCE {
    process-Memory-Size
                                        INTEGER (1..168960,...),
   iE-Extensions
                                        ProtocolExtensionContainer { { HARQ-TDD-InfoItem-ExtIEs } }
                                                                                                            OPTIONAL,
HARQ-TDD-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HCS-Prio
          ::= INTEGER (0..7)
-- 0 = lowest priority, ...7 = highest priority
HSDSCH-FDD-Information ::= SEQUENCE {
   hSDSCH-MACdFlow-Specific-Info
                                            HSDSCH-MACdFlow-Specific-InfoList,
    uE-Capabilities-InfoFDD
                                            UE-Capabilities-InfoFDD,
   hARO-FDD-Info
                                            HARO-FDD-InfoList,
   measurement-Feedback-Offset
                                            Measurement-Feedback-Offset,
   iE-Extensions
                                            ProtocolExtensionContainer { { HSDSCH-FDD-Information-ExtIEs } }
                                                                                                                    OPTIONAL,
    . . .
HSDSCH-FDD-Information-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-FDD-Information-Response ::= SEQUENCE
    hSDSCH-MACdFlow-Specific-InfoList-Response
                                                    HSDSCH-MACdFlow-Specific-InfoList-Response,
                                                    HSSCCH-FDD-Specific-InfoList-Response,
    hSSCCH-Specific-InfoList-Response
    measurement-Feedback-Reporting-Cycle-k1
                                                    Measurement-Feedback-Reporting-Cycle,
    measurement-Feedback-Reporting-Cycle-k2
                                                    Measurement-Feedback-Reporting-Cycle,
                                                    ProtocolExtensionContainer { { HSDSCH-FDD-Information-Response-ExtlEs } }
    iE-Extensions
                                                                                                                                      OPTIONAL,
HSDSCH-FDD-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
HSDSCH-Information-to-Modify ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-to-Modify
                                                    HSDSCH-MACdFlow-Specific-InfoList-to-Modify
                                                                                                            OPTIONAL.
                                                     ENUMERATED {k1, k2}
   measurement-Reporting-Cycle
                                                                                                            OPTIONAL,
   -- Only for FDD
   iE-Extensions
                                                     ProtocolExtensionContainer { { HSDSCH-Information-to-Modify-ExtIEs } } 
                                                                                                                                    OPTIONAL,
HSDSCH-Information-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
HSDSCH-MACdFlow-ID ::= INTEGER (0..maxNrOfMACdFlows-1)
HSDSCH-MACdFlow-Specific-InfoList ::= SEOUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem
HSDSCH-MACdFlow-Specific-InfoItem ::= SEQUENCE {
    hSDSCH-MACdFlow-ID
                                        HSDSCH-MACdFlow-ID,
   bLER
                                        BLER,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    priorityOueue-Info
                                        PriorityOueue-InfoList,
   iE-Extensions
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs } }
                                                                                                                           OPTIONAL,
    . . .
HSDSCH-MACdFlow-Specific-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlow-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-Response
HSDSCH-MACdFlow-Specific-InfoItem-Response ::= SEQUENCE
                                        HSDSCH-MACdFlow-ID,
   hSDSCH-MACdFlow-ID
    bindingID
                                        BindingID
                                                                                 OPTIONAL,
    transportLayerAddress
                                        TransportLayerAddress
                                                                                 OPTIONAL,
                                        ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs } }
    iE-Extensions
                                                                                                                                    OPTIONAL,
    . . .
HSDSCH-MACdFlow-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-MACdFlow-Specific-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfMACdFlows)) OF HSDSCH-MACdFlow-Specific-InfoItem-to-Modify
HSDSCH-MACdFlow-Specific-InfoItem-to-Modify ::= SEQUENCE {
    hSDSCH-MACdFlow-ID
                                        HSDSCH-MACdFlow-ID,
    bler
                                        BLER
                                                                                 OPTIONAL,
    allocationRetentionPriority
                                        AllocationRetentionPriority
                                                                                 OPTIONAL,
    priorityQueue-Info-to-Modify
                                        PriorityQueue-InfoList-to-Modify
                                                                                 OPTIONAL,
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
```

```
ProtocolExtensionContainer { { HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs } }
    iE-Extensions
                                                                                                                                       OPTIONAL,
HSDSCH-MACdFlow-Specific-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-RNTI ::= INTEGER (0..65535)
HSDSCH-TDD-Information ::= SEQUENCE {
                                            HSDSCH-MACdFlow-Specific-InfoList,
   hSDSCH-MACdFlow-Specific-Info
                                            UE-Capabilities-InfoTDD,
    uE-Capabilities-InfoTDD
   hARO-TDD-InfoList
                                            HARO-TDD-InfoList,
    iE-Extensions
                                            ProtocolExtensionContainer { { HSDSCH-TDD-Information-ExtIEs } }
                                                                                                                     OPTIONAL,
HSDSCH-TDD-Information-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
HSDSCH-TDD-Information-Response ::= SEQUENCE {
    hSDSCH-MACdFlow-Specific-InfoList-Response
                                                     HSDSCH-MACdFlow-Specific-InfoList-Response,
   hSSCCH-TDD-Specific-InfoList-Response
                                                     HSSCCH-TDD-Specific-InfoList-Response
                                                                                                            OPTIONAL,
   hSSCCH-TDD-Specific-InfoList-Response-LCR
                                                     HSSCCH-TDD-Specific-InfoList-Response-LCR
                                                                                                            OPTIONAL,
                                                     ProtocolExtensionContainer { { HSDSCH-TDD-Information-Response-ExtIEs } }
    iE-Extensions
                                                                                                                                       OPTIONAL,
    . . .
HSDSCH-TDD-Information-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSCCH-FDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-FDD-Specific-InfoItem-Response
HSSCCH-FDD-Specific-InfoItem-Response ::= SEQUENCE {
    code-Number
                                                     INTEGER (0..127),
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs } }
    OPTIONAL,
    . . .
HSSCCH-FDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
HSSCCH-TDD-Specific-InfoList-Response ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response
HSSCCH-TDD-Specific-InfoItem-Response ::= SEQUENCE {
    timeslot
                                                     TimeSlot,
    midambleShiftAndBurstType
                                                     MidambleShiftAndBurstType,
    tDD-ChannelisationCode
                                                     TDD-ChannelisationCode,
    hSSICH-Info
                                                     HSSICH-Info,
```

```
ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs } }
    iE-Extensions
    OPTIONAL,
    . . .
HSSCCH-TDD-Specific-InfoItem-Response-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSCCH-TDD-Specific-InfoList-Response-LCR ::= SEQUENCE (SIZE (1..maxNrOfHSSCCHCodes)) OF HSSCCH-TDD-Specific-InfoItem-Response-LCR
HSSCCH-TDD-Specific-InfoItem-Response-LCR ::= SEQUENCE {
    timeslotLCR
                                                 TimeSlotLCR,
    midambleShiftLCR
                                                 MidambleShiftLCR,
    tDD-ChannelisationCodeLCR
                                                 TDD-ChannelisationCodeLCR,
    hSSICH-InfoLCR
                                                 HSSICH-InfoLCR,
                                                 ProtocolExtensionContainer { { HSSCCH-TDD-Specific-InfoItem-Response-LCR-ExtIEs } }
    iE-Extensions
    OPTIONAL,
    . . .
HSSCCH-TDD-Specific-InfoItem-Response-LCR-ExtIES RNSAP-PROTOCOL-EXTENSION ::= {
HSSICH-Info ::= SEQUENCE {
    timeslot
                                                     TimeSlot,
    midambleShiftAndBurstType
                                                     MidambleShiftAndBurstType,
    tDD-ChannelisationCode
                                                     TDD-ChannelisationCode,
    iE-Extensions
                                                     ProtocolExtensionContainer { { HSSICH-Info-ExtIEs } }
                                                                                                                   OPTIONAL,
    . . .
HSSICH-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
HSSICH-InfoLCR ::= SEQUENCE {
    timeslotLCR
                                                     TimeSlotLCR,
    midambleShiftLCR
                                                     MidambleShiftLCR,
                                                     TDD-ChannelisationCodeLCR,
    tDD-ChannelisationCodeLCR
                                                     ProtocolExtensionContainer { { HSSICH-Info-LCR-ExtIEs } }
    iE-Extensions
                                                                                                                      OPTIONAL,
HSSICH-Info-LCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
-- I
IB-SchedulingInformation::= SEQUENCE
    iB-SG-Rep
                                    IB-SG-REP,
                                    IB-SegmentInformationList,
    iB-segmentInformationList
```

```
iE-Extensions
IB-SchedulingInformation-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
IB-SegmentInformationList ::= SEQUENCE (SIZE(1..maxIBSEG)) OF IB-SegmentInformationItem
IB-SegmentInformationItem ::= SEQUENCE {
   iB-SG-POS
                               IB-SG-POS,
   iE-Extensions
                               . . .
IB-SegmentInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
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}
IMSI
          ::= OCTET STRING (SIZE(3..8))
InformationAvailable::= SEQUENCE {
   requestedDataValue
                        RequestedDataValue,
   iE-Extensions
                        ProtocolExtensionContainer { { InformationAvailable-ExtIEs} }
                                                                                    OPTIONAL,
   . . .
InformationAvailable-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
InformationExchangeID ::= INTEGER (0..1048575)
InformationNotAvailable ::= NULL
InformationReportCharacteristics ::= CHOICE {
   onDemand
                        PeriodicInformation,
   periodic
                        OnModificationInformation,
   onModification
InformationReportPeriodicity ::= CHOICE {
                 INTEGER (1..60,...),
-- Unit min, Step 1min
   hour
                 INTEGER (1..24,...),
-- Unit hour, Step 1hour
   . . .
```

```
InformationThreshold ::= CHOICE {
    dGPSThreshold
                       DGPSThreshold,
    extension-InformationThreshold
                                        Extension-InformationThreshold
Extension-InformationThreshold ::= ProtocolIE-Single-Container {{ Extension-InformationThresholdIE }}
Extension-InformationThresholdIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Cell-Capacity-Class-Value-ThresholdInformation CRITICALITY reject TYPE Cell-Capacity-Class-Value-ThresholdInformation PRESENCE
mandatory}
InformationType ::= SEQUENCE {
    informationTypeItem
                           ENUMERATED {
       gA-AccessPointPositionwithAltitude,
        qA-AccessPointPosition,
       iPDLParameters,
        gPSInformation,
       dGPSCorrections,
       gPS-RX-POS,
       sFNSFN-GA-AccessPointPosition,
        cell-Capacity-Class
    qPSInformation
                                GPSInformation
                                                        OPTIONAL,
                                ProtocolExtensionContainer { { InformationType-ExtIEs} }
    iE-Extensions
                                                                                                OPTIONAL,
-- The GPS Information IE shall be present if the Information Exchange Type IE indicates 'GPS Information'
InformationType-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
                       ::= ENUMERATED {active, inactive}
InnerLoopDLPCStatus
IPDLParameters ::= CHOICE {
    iPDL-FDD-Parameters
                                IPDL-FDD-Parameters,
    iPDL-TDD-Parameters
                                IPDL-TDD-Parameters,
                                                        --3.84Mcps TDD only
    extension- IPDLParameters
                               Extension- IPDLParameters
Extension- IPDLParameters ::= ProtocolIE-Single-Container {{ Extension- IPDLParametersIE }}
Extension- IPDLParametersIE RNSAP-PROTOCOL-IES ::= {
    { ID id-IPDL-TDD-ParametersLCR CRITICALITY reject EXTENSION IPDL-TDD-ParametersLCR
                                                                                            PRESENCE mandatory },
    . . .
```

```
IPDL-FDD-Parameters ::= SEQUENCE {
    iPSpacingFDD
                                IPSpacingFDD,
    iPLength
                                IPLength,
    iPOffset
                                IPOffset,
                                Seed.
    burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { { IPDL-FDD-Parameters-ExtIEs} }
                                                                                                   OPTIONAL,
IPDL-FDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPDL-TDD-Parameters ::= SEQUENCE {
    iPSpacingTDD
                                IPSpacingTDD,
    iPStart
                                IPStart,
    iPSlot
                                IPSlot,
    iP-P-CCPCH
                                IP-P-CCPCH,
    burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { { IPDL-TDD-Parameters-ExtIEs} }
                                                                                                   OPTIONAL,
-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.
IPDL-TDD-Parameters-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPDL-TDD-ParametersLCR ::= SEQUENCE {
    iPSpacingTDD
                                IPSpacingTDD,
    iPStart
                                IPStart,
    iPSub
                                IPSub,
    burstModeParameters
                                BurstModeParameters
                                                        OPTIONAL,
                                ProtocolExtensionContainer { { IPDL-TDD-ParametersLCR-ExtIEs} } OPTIONAL,
   iE-Extensions
-- The BurstModeParameters IE shall be included if the Idle Periods are arranged in Burst Mode.
IPDL-TDD-ParametersLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
IPLength ::= ENUMERATED {
    ipl5,
    ipl10,
    . . .
IPOffset ::= INTEGER (0..9)
IP-P-CCPCH ::= ENUMERATED {
```

```
switchOff-1-Frame,
    switchOff-2-Frames
IPSlot ::= INTEGER (0..14)
IPSpacingFDD ::= ENUMERATED {
    ipsF5,
    ipsF7,
    ipsF10,
    ipsF15,
    ipsF20,
    ipsF30,
    ipsF40,
    ipsF50,
IPSpacingTDD ::= ENUMERATED {
    ipsT30,
    ipsT40,
    ipsT50,
    ipsT70,
    ipsT100,
IPStart ::= INTEGER (0..4095)
IPSub := ENUMERATED {
    first,
    second,
    both
-- J
-- K
LAC
                    ::= OCTET STRING (SIZE (2)) --(EXCEPT ('0000'H|'FFFF'H))
LengthOfTFCI2 ::= INTEGER(1..10)
LimitedPowerIncrease ::= ENUMERATED {
    used,
   not-used
L3-Information
                            ::= BIT STRING
Load-Value-IncrDecrThres ::= INTEGER(0..100)
Load-Value ::= INTEGER(0..100)
```

```
LoadValue ::= SEQUENCE {
       uplinkLoadValue
                            INTEGER(0..100),
       downlinkLoadValue INTEGER(0..100)
-- M
MaxNrOfUL-DPCHs
                           ::= INTEGER (1..6)
MAC-c-sh-SDU-Length
                           ::= INTEGER (1..5000)
MAC-c-sh-SDU-LengthList ::= SEQUENCE(SIZE(1..maxNrOfMACcshSDU-Length)) OF MAC-c-sh-SDU-Length
MACdPDU-Size ::= INTEGER (1..5000,...)
MACdPDU-Size-IndexList ::= SEOUENCE (SIZE (1...maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem
MACdPDU-Size-IndexItem ::= SEQUENCE {
                                        SID,
                                        MACdPDU-Size,
    mACdPDU-Size
    iE-Extensions
                                        ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-ExtIEs } }
                                                                                                                OPTIONAL,
MACdPDU-Size-IndexItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MACdPDU-Size-IndexList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPDUIndexes)) OF MACdPDU-Size-IndexItem-to-Modify
MACdPDU-Size-IndexItem-to-Modify ::= SEQUENCE {
    sID
    mACdPDU-Size
                                        MACdPDU-Size
                                                                                OPTIONAL,
                                        ProtocolExtensionContainer { { MACdPDU-Size-IndexItem-to-Modify-ExtIEs } }
    iE-Extensions
                                                                                                                         OPTIONAL,
MACdPDU-Size-IndexItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MaximumAllowedULTxPower
                         ::= INTEGER (-50..33)
MaxNrDLPhysicalchannels
                           ::= INTEGER (1..224)
MaxNrTimeslots
                           ::= INTEGER (1..14)
MaxNrULPhysicalchannels
                           ::= INTEGER (1..2)
MaxTFCIvalue
                           ::= INTEGER (1..1023)
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)
MinimumSpreadingFactor
                           ::= INTEGER (1..16)
Multi-code-info
                           ::= INTEGER (1..16)
MultipleURAsIndicator ::= ENUMERATED {
   multiple-URAs-exist,
    single-URA-exists
MaxAdjustmentStep
                           ::= INTEGER(1..10)
-- Unit Slot
MeasurementChangeTime
                           ::= INTEGER (1..6000,...)
-- The MeasurementChangeTime gives the MeasurementChangeTime
-- in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10 ms
Measurement-Feedback-Offset ::= INTEGER (0..79,...)
Measurement-Feedback-Reporting-Cycle ::= ENUMERATED {
   v1.
    v5.
    v10,
    v20,
    v40,
    v80,
    . . .
MeasurementHysteresisTime
                                ::= INTEGER (1..6000,...)
-- The MeasurementHysteresisTime gives the
-- MeasurementHysteresisTime in number of 10 ms periods.
-- E.g. Value 6000 means 60000ms(1min)
-- Unit is ms, Step is 10ms
MeasurementIncreaseDecreaseThreshold
                                            ::= CHOICE {
    sir
                                    SIR-Value-IncrDecrThres,
    sir-error
                                    SIR-Error-Value-IncrDecrThres,
    transmitted-code-power
                                    Transmitted-Code-Power-Value-IncrDecrThres,
                                    RSCP-Value-IncrDecrThres,
    round-trip-time
                                    Round-Trip-Time-IncrDecrThres,
    extension-MeasurementIncreaseDecreaseThreshold
                                                        Extension-MeasurementIncreaseDecreaseThreshold
Extension-MeasurementIncreaseDecreaseThreshold ::= ProtocolIE-Single-Container {{ Extension-MeasurementIncreaseDecreaseThresholdIE }}
Extension-MeasurementIncreaseDecreaseThresholdIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Load-Value-IncrDecrThres
                                       CRITICALITY reject TYPE Load-Value-IncrDecrThres PRESENCE mandatory } |
```

```
mandatory }|
   { ID id-Received-Total-Wideband-Power-Value-IncrDecrThres
                                                          CRITICALITY reject TYPE Received-Total-Wideband-Power-Value-IncrDecrThres
   PRESENCE mandatory } |
     ID id-UL-Timeslot-ISCP-Value-IncrDecrThres
                                               CRITICALITY reject TYPE UL-Timeslot-ISCP-Value-IncrDecrThres PRESENCE mandatory }
     ID id-RT-Load-Value-IncrDecrThres CRITICALITY reject TYPE RT-Load-Value-IncrDecrThres
                                                                                       PRESENCE mandatory }
     ID id-NRT-Load-Information-Value-IncrDecrThres
                                                CRITICALITY reject TYPE NRT-Load-Information-Value-IncrDecrThres PRESENCE mandatory
MeasurementThreshold
                             ::= CHOICE {
                                SIR-Value,
   sir
   sir-error
                                SIR-Error-Value,
                                Transmitted-Code-Power-Value,
   transmitted-code-power
                                RSCP-Value,
   rscp
   rx-timing-deviation
                                Rx-Timing-Deviation-Value,
   round-trip-time
                                Round-Trip-Time-Value,
   extension-MeasurementThreshold Extension-MeasurementThreshold
Extension-MeasurementThreshold ::= ProtocolIE-Single-Container {{ Extension-MeasurementThresholdIE }}
Extension-MeasurementThresholdIE RNSAP-PROTOCOL-IES ::= {
                                                 CRITICALITY reject TYPE TUTRANGPSMeasurementThresholdInformation PRESENCE mandatory }
     ID id-TUTRANGPSMeasurementThresholdInformation
     PRESENCE mandatory } |
     ID id-Load-Value CRITICALITY reject TYPE Load-Value
                                                          PRESENCE mandatory } |
     ID id-Transmitted-Carrier-Power-Value
                                           CRITICALITY reject TYPE Transmitted-Carrier-Power-Value
                                                                                                   PRESENCE mandatory } |
     ID id-Received-Total-Wideband-Power-Value
                                               CRITICALITY reject TYPE Received-Total-Wideband-Power-Value
                                                                                                         PRESENCE mandatory } |
     ID id-UL-Timeslot-ISCP-Value
                                    CRITICALITY reject TYPE UL-Timeslot-ISCP-Value
                                                                                   PRESENCE mandatory } |
     ID id-RT-Load-Value CRITICALITY reject TYPE RT-Load-Value
                                                                 PRESENCE mandatory } |
     ID id-NRT-Load-information-Value CRITICALITY reject TYPE NRT-Load-Information-Value
                                                                                       PRESENCE mandatory }
                                        ENUMERATED {v4, v8, v16}
MidambleConfigurationBurstType1And3 ::=
                                    ENUMERATED {v3, v6}
MidambleConfigurationBurstType2 ::=
MidambleShiftAndBurstType ::=
                                 CHOICE {
                                    SEOUENCE
   type1
       midambleConfigurationBurstType1And3
                                           MidambleConfigurationBurstTypelAnd3,
       midambleAllocationMode
                                        CHOICE {
          defaultMidamble
                                           NULL,
          commonMidamble
                                           NULL,
                                           MidambleShiftLong,
          ueSpecificMidamble
       . . .
                                    SEOUENCE
   type2
                                        MidambleConfigurationBurstType2,
       midambleConfigurationBurstType2
       midambleAllocationMode
                                        CHOICE {
          defaultMidamble
                                           NULL,
          commonMidamble
                                           NULL,
                                           MidambleShiftShort,
          ueSpecificMidamble
```

```
. . .
    type3
                                        SEOUENCE
        midambleConfigurationBurstType1And3 MidambleConfigurationBurstType1And3,
       midambleAllocationMode
            defaultMidamble
                                                 NULL,
           ueSpecificMidamble
                                                 MidambleShiftLong,
       . . .
MidambleShiftLong ::=
                                    INTEGER (0..15)
MidambleShiftShort ::=
                                    INTEGER (0..5)
MidambleShiftLCR ::= SEQUENCE {
    midambleAllocationMode
                                MidambleAllocationMode,
    midambleShift
                                MidambleShiftLong
                                                         OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {MidambleShiftLCR-ExtIEs} }
                                                                                                  OPTIONAL,
MidambleAllocationMode ::= ENUMERATED {
    defaultMidamble,
    commonMidamble,
    uESpecificMidamble,
MidambleShiftLCR-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
MinUL-ChannelisationCodeLength
                                    ::= ENUMERATED
    v4,
    v8,
    v16,
    v32,
    v64,
    v128,
    v256
Modulation ::= ENUMERATED {
    aPSK,
    eightPSK,
    . . .
```

```
MultiplexingPosition ::= ENUMERATED {
   fixed.
    flexible
-- N
NCC ::= BIT STRING (SIZE (3))
Neighbouring-UMTS-CellInformation ::= SEQUENCE (SIZE (1..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Single-Container {{ Neighbouring-UMTS-
CellInformationItemIE }}
Neighbouring-UMTS-CellInformationItemIE RNSAP-PROTOCOL-IES ::= {
    Neighbouring-UMTS-CellInformationItem PRESENCE mandatory }
Neighbouring-UMTS-CellInformationItem ::= SEQUENCE {
   rNC-ID
    cN-PS-DomainIdentifier
                                           CN-PS-DomainIdentifier
                                                                      OPTIONAL,
    cN-CS-DomainIdentifier
                                           CN-CS-DomainIdentifier
                                                                      OPTIONAL,
   neighbouring-FDD-CellInformation
                                           Neighbouring-FDD-CellInformation
                                                                              OPTIONAL,
   neighbouring-TDD-CellInformation
                                           Neighbouring-TDD-CellInformation
                                                                              OPTIONAL,
                                           ProtocolExtensionContainer { {Neighbouring-UMTS-CellInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
Neighbouring-UMTS-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-neighbouring-LCR-TDD-CellInformation
                                                           CRITICALITY ignore
                                                                                  EXTENSION
                                                                                              Neighbouring-LCR-TDD-CellInformation
                                                                                                                                         PRESENCE
optional },
Neighbouring-FDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Neighbouring-FDD-CellInformationItem
Neighbouring-FDD-CellInformationItem ::= SEQUENCE {
   c-ID
                                       C-ID,
    uARFCNforNu
                                       UARFCN,
    uARFCNforNd
                                       UARFCN,
                                                           OPTIONAL,
    frameOffset
                                       FrameOffset
    primaryScramblingCode
                                       PrimaryScramblingCode,
                                       PrimaryCPICH-Power
   primaryCPICH-Power
                                                              OPTIONAL,
    cellIndividualOffset
                                       CellIndividualOffset
                                                              OPTIONAL,
                                       TxDiversityIndicator,
    txDiversityIndicator
    sTTD-SupportIndicator
                                       STTD-SupportIndicator
                                                              OPTIONAL,
    closedLoopModel-SupportIndicator
                                       ClosedLoopModel-SupportIndicator
                                                                          OPTIONAL,
    closedLoopMode2-SupportIndicator
                                       ClosedLoopMode2-SupportIndicator
                                                                          OPTIONAL,
    iE-Extensions
                                       ProtocolExtensionContainer { { Neighbouring-FDD-CellInformationItem-ExtIEs} } OPTIONAL,
Neighbouring-FDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-RestrictionStateIndicator
                                                   CRITICALITY ignore
                                                                              EXTENSION RestrictionStateIndicator
                                                                                                                    PRESENCE optional }
     ID id-DPC-Mode-Change-SupportIndicator
                                                                      EXTENSION DPC-Mode-Change-SupportIndicator
                                                                                                                       PRESENCE optional } |
                                               CRITICALITY ignore
     ID id-CoverageIndicator
                                           CRITICALITY ignore
                                                                      EXTENSION CoverageIndicator
                                                                                                              PRESENCE optional }
```

```
ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                         EXTENSION AntennaColocationIndicator
                                                                                                                  PRESENCE optional } |
      ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                         EXTENSION HCS-Prio
                                                                                                                  PRESENCE optional } |
     ID id-CellCapabilityContainer-FDD
                                                CRITICALITY ignore
                                                                         EXTENSION CellCapabilityContainer-FDD
                                                                                                                           PRESENCE optional },
NeighbouringFDDCellMeasurementInformation ::= SEQUENCE {
    uC-ID
                                        UC-ID,
    11ARFCN
                                        UARFCN,
                                        PrimaryScramblingCode,
    primaryScramblingCode
                                        ProtocolExtensionContainer { { NeighbouringFDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
NeighbouringFDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Neighbouring-GSM-CellInformation ::= ProtocolIE-Single-Container {{ Neighbouring-GSM-CellInformationIE }}
Neighbouring-GSM-CellInformationIE RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-GSM-CellInformation CRITICALITY ignore TYPE
                                                                            Neighbouring-GSM-CellInformationIEs PRESENCE mandatory }
Neighbouring-GSM-CellInformationIEs ::= SEQUENCE ( SIZE (1..maxNrOfGSMNeighboursPerRNC,...)) OF Neighbouring-GSM-CellInformationItem
Neighbouring-GSM-CellInformationItem ::= SEQUENCE {
    cellIndividualOffset
                                        CellIndividualOffset
                                                                OPTIONAL,
    bSIC
                                        BSIC.
                                        Band-Indicator,
    band-Indicator
    bcch-arfcn
                                        BCCH-ARFCN,
                                        ProtocolExtensionContainer { { Neighbouring-GSM-CellInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
Neighbouring-GSM-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-CoverageIndicator
                                                                         EXTENSION CoverageIndicator
                                                                                                                  PRESENCE optional }
                                            CRITICALITY ignore
      ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                         EXTENSION AntennaColocationIndicator
                                                                                                                  PRESENCE optional }
     ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                         EXTENSION HCS-Prio
                                                                                                                  PRESENCE optional },
    . . .
Neighbouring-TDD-CellInformation ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC,...)) OF Neighbouring-TDD-CellInformationItem
Neighbouring-TDD-CellInformationItem ::= SEQUENCE {
                                    C-ID,
    uARFCNforNt
                                    UARFCN,
    frameOffset
                                    FrameOffset
                                                        OPTIONAL,
    cellParameterID
                                    CellParameterID,
    syncCase
                                    SyncCase,
    timeSlot
                                    TimeSlot
                                                        OPTIONAL
    -- This IE shall be present if Sync Case = Case1 -- ,
    sCH-TimeSlot
                                    SCH-TimeSlot
                                                            OPTIONAL
```

```
-- This IE shall be present if Sync Case = Case2 -- ,
    sCTD-Indicator
                           SCTD-Indicator.
    cellIndividualOffset
                                    CellIndividualOffset
                                                            OPTIONAL.
    dPCHConstantValue
                                    DPCHConstantValue OPTIONAL,
    pCCPCH-Power
                                    PCCPCH-Power
                                                            OPTIONAL.
                                    ProtocolExtensionContainer { { Neighbouring-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
Neighbouring-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
      ID id-RestrictionStateIndicator
                                                                                                                       PRESENCE optional } |
                                                    CRITICALITY ignore
                                                                                EXTENSION RestrictionStateIndicator
      ID id-CoverageIndicator
                                            CRITICALITY ignore
                                                                        EXTENSION CoverageIndicator
                                                                                                                 PRESENCE optional }
                                                                                                                 PRESENCE optional }
     ID id-AntennaColocationIndicator
                                            CRITICALITY ignore
                                                                        EXTENSION AntennaColocationIndicator
      ID id-HCS-Prio
                                            CRITICALITY ignore
                                                                        EXTENSION HCS-Prio
                                                                                                                 PRESENCE optional }
    { ID id-CellCapabilityContainer-TDD
                                                    CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD
                                                                                                                       PRESENCE optional },
NeighbouringTDDCellMeasurementInformation ::= SEQUENCE {
    uC-ID
                                        UC-ID,
    11ARFCN
                                        UARFCN,
    cellParameterID
                                        CellParameterID,
    timeSlot
                                        TimeSlot
                                                                    OPTIONAL,
    midambleShiftAndBurstType
                                        MidambleShiftAndBurstType OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationItem-ExtIEs} } OPTIONAL,
NeighbouringTDDCellMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
NeighbouringTDDCellMeasurementInformationLCR ::= SEQUENCE
    uC-ID
                                        UC-ID,
    uARFCN
                                        UARFCN,
    cellParameterID
                                        CellParameterID,
    timeSlotLCR
                                        TimeSlotLCR
                                                                    OPTIONAL,
    midambleShiftLCR
                                        MidambleShiftLCR
                                                                    OPTIONAL,
    iE-Extensions
                                        ProtocolExtensionContainer { { NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs} } OPTIONAL,
NeighbouringTDDCellMeasurementInformationLCRItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Neighbouring-LCR-TDD-CellInformation ::= SEQUENCE (SIZE (1.. maxNrOfLCRTDDNeighboursPerRNC,...)) OF Neighbouring-LCR-TDD-CellInformationItem
Neighbouring-LCR-TDD-CellInformationItem ::= SEQUENCE {
    C-TD
                                    C-ID,
    uARFCNforNt
                                    UARFCN,
    frameOffset
                                    FrameOffset
                                                        OPTIONAL,
    cellParameterID
                                    CellParameterID,
```

```
sCTD-Indicator
                           SCTD-Indicator,
    cellIndividualOffset
                                   CellIndividualOffset
                                                            OPTIONAL.
    dPCHConstantValue
                                    DPCHConstantValue OPTIONAL.
                                    PCCPCH-Power
    pCCPCH-Power
                                                            OPTIONAL,
    restrictionStateIndicator
                                    RestrictionStateIndicator
                                                                    OPTIONAL.
                                    ProtocolExtensionContainer { { Neighbouring-LCR-TDD-CellInformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
Neighbouring-LCR-TDD-CellInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    { ID id-CellCapabilityContainer-TDD-LCR CRITICALITY ignore EXTENSION CellCapabilityContainer-TDD-LCR
                                                                                                                PRESENCE optional },
    . . .
NrOfDLchannelisationcodes ::= INTEGER (1..8)
NrOfTransportBlocks
                           ::= INTEGER (0..512)
NRT-Load-Information-Value-IncrDecrThres ::= INTEGER(0..3)
NRTLoadinformationValue ::= SEQUENCE {
        uplinkNRTLoadInformationValue
                                            INTEGER(0..3),
        downlinkNRTLoadInformationValue
                                            INTEGER (0..3)
-- O
OnModification ::= SEQUENCE {
    measurementThreshold
                          MeasurementThreshold,
                           ProtocolExtensionContainer { {OnModification-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
OnModification-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
OnModificationInformation ::= SEQUENCE {
    informationThreshold InformationThreshold
                                                    OPTIONAL,
                           ProtocolExtensionContainer { {OnModificationInformation-ExtIEs} } OPTIONAL,
    iE-Extensions
OnModificationInformation-ExtlEs RNSAP-PROTOCOL-EXTENSION ::= {
-- P
PagingCause ::= ENUMERATED {
    terminating-conversational-call,
    terminating-streaming-call,
    terminating-interactive-call,
```

```
terminating-background-call,
    terminating-low-priority-signalling,
    terminating-high-priority-signalling,
    terminating-cause-unknown
-- See in [16]
PagingRecordType ::= ENUMERATED {
    imsi-gsm-map,
    tmsi-gsm-map,
    p-tmsi-gsm-map,
    imsi-ds-41.
    tmsi-ds-41,
-- See in [16]
PayloadCRC-PresenceIndicator ::= ENUMERATED {
    crc-included.
    crc-not-included
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
PCH-InformationList ::= SEQUENCE (SIZE(0..1)) OF PCH-InformationItem
PCH-InformationItem ::= SEQUENCE {
    transportFormatSet
                                    TransportFormatSet,
                                    ProtocolExtensionContainer { { PCH-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
PCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PC-Preamble ::= INTEGER(0..7,...)
PDSCHCodeMapping ::= SEQUENCE {
    dL-ScramblingCode
                            DL-ScramblingCode,
    signallingMethod
                            PDSCHCodeMapping-SignallingMethod,
    iE-Extensions
                            ProtocolExtensionContainer { { PDSCHCodeMapping-ExtIEs} } OPTIONAL,
PDSCHCodeMapping-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
```

```
PDSCHCodeMapping-SignallingMethod ::= CHOICE {
    pDSCHCodeMapping-SignallingMethod-CodeRange
                                                    PDSCHCodeMapping-SignallingMethod-CodeRange,
    pDSCHCodeMapping-SignallingMethod-TFCIRange
                                                    PDSCHCodeMapping-SignallingMethod-TFCIRange,
    pDSCHCodeMapping-SignallingMethod-Explicit
                                                     PDSCHCodeMapping-SignallingMethod-Explicit,
    pDSCHCodeMapping-SignallingMethod-Replace
                                                     PDSCHCodeMapping-SignallingMethod-Replace
PDSCHCodeMapping-SignallingMethod-CodeRange ::= SEQUENCE (SIZE (1..maxNoCodeGroups)) OF
    SEQUENCE ·
       spreadingFactor
                                SpreadingFactor,
        multi-code-info
                                Multi-code-info,
                                CodeNumber,
        start-CodeNumber
        stop-CodeNumber
                                CodeNumber,
       iE-Extensions
                                ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-CodeRange-ExtIEs} } OPTIONAL,
PDSCHCodeMapping-SignallingMethod-CodeRange-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PDSCHCodeMapping-SignallingMethod-TFCIRange ::= SEQUENCE (SIZE (1..maxNoTFCIGroups)) OF
    SEOUENCE {
       maxTFCIvalue
                                MaxTFCIvalue,
        spreadingFactor
                                SpreadingFactor,
        multi-code-info
                                Multi-code-info,
        codeNumber
                                CodeNumber,
                                ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-TFCIRange-ExtIEs} } OPTIONAL,
        iE-Extensions
PDSCHCodeMapping-SignallingMethod-TFCIRange-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PDSCHCodeMapping-SignallingMethod-Explicit ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
    SEQUENCE {
        spreadingFactor
                                SpreadingFactor,
        multi-code-info
                                Multi-code-info,
        codeNumber
                                CodeNumber,
                                ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-Explicit-ExtIEs} } OPTIONAL,
       iE-Extensions
        . . .
PDSCHCodeMapping-SignallingMethod-Explicit-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PDSCHCodeMapping-SignallingMethod-Replace ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
    SEOUENCE {
        tfci-Field2
                                    TFCS-MaxTFCI-field2-Value,
        spreadingFactor
                                    SpreadingFactor,
                                    Multi-code-info,
        multi-CodeInfo
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codeNumber
                                    CodeNumber,
       iE-Extensions
                                    ProtocolExtensionContainer { { PDSCHCodeMapping-SignallingMethod-Replace-ExtIEs} }
                                                                                                                           OPTIONAL,
    . . .
PDSCHCodeMapping-SignallingMethod-Replace-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Periodic ::= SEQUENCE {
    reportPeriodicity
                            ReportPeriodicity,
                            ProtocolExtensionContainer { {Periodic-ExtIEs} } OPTIONAL,
    iE-Extensions
Periodic-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PeriodicInformation ::= SEQUENCE {
    informationReportPeriodicity
                                        InformationReportPeriodicity,
    iE-Extensions
                                        ProtocolExtensionContainer { {PeriodicInformation-ExtIEs} } OPTIONAL,
PeriodicInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Permanent-NAS-UE-Identity ::= CHOICE {
    imsi
                IMSI,
    . . .
PLMN-Identity ::= OCTET STRING (SIZE(3))
PowerAdjustmentType ::= ENUMERATED {
    none,
    common,
    individual
PowerOffset
                        ::= INTEGER (0..24)
PRC ::= INTEGER (-2047...2047)
--pseudo range correction; scaling factor 0.32 meters
PRCDeviation ::= ENUMERATED {
    prcd1,
   prcd2,
   prcd5,
   prcd10,
```

```
Pre-emptionCapability ::= ENUMERATED {
    shall-not-trigger-pre-emption,
    may-trigger-pre-emption
Pre-emptionVulnerability ::= ENUMERATED {
    not-pre-emptable,
    pre-emptable
PredictedSFNSFNDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
PredictedTUTRANGPSDeviationLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
PrimaryCPICH-Power
                           ::= INTEGER (-100..500)
-- step 0.1 (Range -10.0..50.0) Unit is dBm
PrimaryCPICH-EcNo
                           ::= INTEGER (-30..30)
PrimaryCCPCH-RSCP
                           ::= INTEGER (0..91)
-- According to maping in [14]
PrimaryScramblingCode
                                ::= INTEGER (0..511)
PriorityLevel
                            ::= INTEGER (0..15)
-- 0 = spare, 1 = highest priority, ...14 = lowest priority and 15 = no priority
PriorityQueue-Id ::= INTEGER (0..maxNrOfPrioQueues-1)
PriorityQueue-InfoList ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem
PriorityQueue-InfoItem ::= SEQUENCE {
                                        PriorityQueue-Id,
   priorityQueue-Id
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
   mACdPDU-Size-Index
                                        MACdPDU-Size-IndexList,
   iE-Extensions
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-ExtIEs } }
                                                                                                                 OPTIONAL,
    . . .
PriorityQueue-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PriorityQueue-InfoList-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfPrioQueues)) OF PriorityQueue-InfoItem-to-Modify
PriorityQueue-InfoItem-to-Modify ::= SEQUENCE {
                                        PriorityOueue-Id,
    priorityOueue-Id
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator
                                                                                OPTIONAL,
   mACdPDU-Size-Index-to-Modify
                                        MACdPDU-Size-IndexList-to-Modify
   iE-Extensions
                                        ProtocolExtensionContainer { { PriorityQueue-InfoItem-to-Modify-ExtIEs } } 
                                                                                                                          OPTIONAL,
   . . .
```

```
}
PriorityQueue-InfoItem-to-Modify-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
PropagationDelay
                         ::= INTEGER (0..255)
PunctureLimit
                          ::= INTEGER (0..15)
-- 0: 40%; 1: 44%; ... 14: 96%; 15: 100
-- Q
OE-Selector ::= ENUMERATED {
    selected,
   non-selected
-- R
RAC
                   ::= OCTET STRING (SIZE(1))
RANAP-RelocationInformation
                               ::= BIT STRING
Range-Correction-Rate ::= INTEGER (-127..127)
-- scaling factor 0.032 m/s
RateMatchingAttribute
                               ::= INTEGER (1..maxRateMatching)
RB-Identity
                               ::= INTEGER (0..31)
RB-Info ::= SEQUENCE (SIZE(1..maxNoOfRB)) OF RB-Identity
Received-Total-Wideband-Power-Value ::= Received-total-wide-band-power
Received-Total-Wideband-Power-Value-IncrDecrThres ::= INTEGER(0..620)
-- Unit dB Step 0.1dB
-- e.g. value 100 means 10dB
RefTFCNumber ::= INTEGER (0..15)
RepetitionLength
                           ::= INTEGER (1..63)
RepetitionPeriod ::= ENUMERATED {
    v1,
    v2.
    v4,
    v8,
    v16,
    v32,
    v64
```

```
RepetitionNumber0 ::= INTEGER (0..255)
RepetitionNumber1 ::= INTEGER (1..256)
ReportCharacteristics ::= CHOICE {
   onDemand
                      NULL,
   periodic
                      Periodic,
                      EventA,
   eventA
    eventB
                      EventB,
    eventC
                      EventC,
                      EventD,
   eventD
                      EventE,
   eventE
    eventF
                      EventF,
    . . . ,
    extension-ReportCharacteristics
                                      Extension-ReportCharacteristics
Extension-ReportCharacteristics ::= ProtocolIE-Single-Container {{ Extension-ReportCharacteristicsIE }}
Extension-ReportCharacteristicsIE RNSAP-PROTOCOL-IES ::= {
    { ID id-OnModification CRITICALITY reject TYPE OnModification
                                                                    PRESENCE mandatory }
ReportPeriodicity ::= CHOICE {
   ten-msec
                          INTEGER (1..6000,...),
-- The Report Periodicity gives the reporting periodicity in number of 10 ms periods.
-- E.g. value 6000 means 60000ms (i.e. 1min)
-- Unit ms, Step 10ms
                  INTEGER (1..60,...),
   min
-- Unit min, Step 1min
    . . .
RequestedDataValue ::= SEQUENCE {
   qA-AccessPointPositionwithAltitude
                                             GA-AccessPointPositionwithOptionalAltitude OPTIONAL,
   iPDLParameters
                                             IPDLParameters
                                                                                       OPTIONAL,
   dGPSCorrections
                                             DGPSCorrections
                                                                                       OPTIONAL,
   qPS-NavigationModel-and-TimeRecovery
                                             GPS-NavigationModel-and-TimeRecovery
                                                                                       OPTIONAL,
   qPS-Ionospheric-Model
                                             GPS-Ionospheric-Model
                                                                                       OPTIONAL,
   qPS-UTC-Model
                                             GPS-UTC-Model
                                                                                       OPTIONAL,
   gPS-Almanac
                                             GPS-Almanac
                                                                                       OPTIONAL,
   gPS-RealTime-Integrity
                                             GPS-RealTime-Integrity
                                                                                       OPTIONAL,
                                             GPS-RX-POS
   qPS-RX-POS
                                                                                       OPTIONAL,
                                             GA-AccessPointPositionwithOptionalAltitude OPTIONAL,
    sFNSFN-GA-AccessPointPosition
                                             ProtocolExtensionContainer { { RequestedDataValue-ExtIEs} }
   iE-Extensions
                                                                                                           OPTIONAL,
RequestedDataValue-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    RequestedDataValueInformation ::= CHOICE {
```

OPTIONAL,

```
informationAvailable
                                InformationAvailable,
    informationNotAvailable
                                InformationNotAvailable
RestrictionStateIndicator ::= ENUMERATED {
    cellNotResevedForOperatorUse,
    cellResevedForOperatorUse,
RL-ID
                       ::= INTEGER (0..31)
RL-Set-ID
                       ::= INTEGER (0..31)
RL-Specific-DCH-Info ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF RL-Specific-DCH-Info-Item
RL-Specific-DCH-Info-Item ::= SEOUENCE {
    dCH-id
                           DCH-ID,
    bindingID
                           BindingID OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
    transportLayerAddress TransportLayerAddress
                                                        OPTIONAL,
    -- Shall be ignored if bearer establishment with ALCAP.
                           ProtocolExtensionContainer { { RL-Specific-DCH-Info-Item-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
RL-Specific-DCH-Info-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RNC-ID
                       ::= INTEGER (0..4095)
Round-Trip-Time-IncrDecrThres ::= INTEGER(0..32766)
Round-Trip-Time-Value ::= INTEGER(0..32767)
-- According to mapping in [23]
RSCP-Value ::= INTEGER (0..127)
-- According to mapping in [24]
RSCP-Value-IncrDecrThres ::= INTEGER (0..126)
Received-total-wide-band-power
                                           ::= INTEGER (0..621)
-- According to mapping in [23]
RT-Load-Value-IncrDecrThres ::= INTEGER(0..100)
RTLoadValue ::= SEQUENCE {
       uplinkRTLoadValue
                                INTEGER(0..100),
        downlinkRTLoadValue
                                INTEGER(0..100)
RxTimingDeviationForTA
                                   ::= INTEGER (0..127)
-- As specified in [5], ch. 6.2.7.6
```

```
-- For 1.28Mcps TDD this IE must be set to 0.
Rx-Timing-Deviation-Value ::= INTEGER (0..8191)
--According to mapping in [24][3.84Mcps TDD only]
Rx-Timing-Deviation-Value-LCR ::= INTEGER (0..255)
--According to mapping in [24][1.28Mcps TDD only]
-- S
SAC
                    ::= OCTET STRING (SIZE (2))
SAI ::= SEQUENCE {
    pLMN-Identity
                        PLMN-Identity,
    1AC
                        LAC,
    sAC
                        SAC,
                        ProtocolExtensionContainer { {SAI-ExtIEs} } OPTIONAL
    iE-Extensions
SAI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SAT-ID ::= INTEGER (0..63)
SCH-TimeSlot
                            ::= INTEGER (0..6)
ScaledAdjustmentRatio
                                ::= INTEGER(0..100)
-- AdjustmentRatio = ScaledAdjustmentRatio / 100
Secondary-CCPCH-Info::= SEQUENCE {
    fDD-S-CCPCH-Offset
                                            FDD-S-CCPCH-Offset,
    dl-ScramblingCode
                                            DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber
                                            FDD-DL-ChannelisationCodeNumber,
    dl-TFCS
                                            TFCS,
    secondaryCCPCH-SlotFormat
                                            SecondaryCCPCH-SlotFormat,
    tFCI-Presence
                                            TFCI-Presence OPTIONAL,
    -- This IE shall be present only if the Secondary CCPCH Slot Format IE is equal to any of the values from 8 to 17
    multiplexingPosition
                                            MultiplexingPosition,
    sTTD-Indicator
                                            STTD-Indicator,
    fACH-PCH-InformationList
                                            FACH-PCH-InformationList,
    iB-schedulingInformation
                                            IB-SchedulingInformation,
    iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-CCPCH-Info-ExtIEs} } OPTIONAL,
Secondary-CCPCH-Info-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-Info-TDD::= SEQUENCE {
    dl-TFCS
                                            TFCS,
    tFCI-Coding
                                            TFCI-Coding,
    secondary-CCPCH-TDD-InformationList
                                            Secondary-CCPCH-TDD-InformationList,
```

```
FACH-InformationList,
    fACH-InformationList
    pCH-InformationList
                                            PCH-InformationList.
    iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
Secondary-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-LCR-CCPCH-Info-TDD::= SEQUENCE {
    dl-TFCS
                                            TFCS.
    tFCI-Coding
                                            TFCI-Coding,
    secondary-LCR-CCPCH-TDD-InformationList Secondary-LCR-CCPCH-TDD-InformationList,
    fACH-InformationList
                                            FACH-InformationList,
    pCH-InformationList
                                            PCH-InformationList,
   iE-Extensions
                                            ProtocolExtensionContainer { { Secondary-LCR-CCPCH-Info-TDD-ExtIEs} } OPTIONAL,
Secondary-LCR-CCPCH-Info-TDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-InformationItem
Secondary-CCPCH-TDD-InformationItem ::= SEQUENCE {
    timeSlot
                                    TimeSlot,
    midambleShiftAndBurstType
                                    MidambleShiftAndBurstType,
    tFCI-Presence
                                    TFCI-Presence,
                                                        Secondary-CCPCH-TDD-Code-Information,
    secondary-CCPCH-TDD-Code-Information
    tDD-PhysicalChannelOffset
                                    TDD-PhysicalChannelOffset,
    repetitionLength
                                    RepetitionLength,
    repetitionPeriod
                                    RepetitionPeriod,
                                    ProtocolExtensionContainer { { Secondary-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
Secondary-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
Secondary-LCR-CCPCH-TDD-InformationList ::= SEQUENCE (SIZE(0.. maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-InformationItem
Secondary-LCR-CCPCH-TDD-InformationItem ::= SEOUENCE {
    timeSlotLCR
                                                TimeSlotLCR,
   midambleShiftLCR
                                                MidambleShiftLCR,
    tFCI-Presence
                                                TFCI-Presence,
    secondary-LCR-CCPCH-TDD-Code-Information
                                                Secondary-LCR-CCPCH-TDD-Code-Information,
    tDD-PhysicalChannelOffset
                                                TDD-PhysicalChannelOffset,
    repetitionLength
                                                RepetitionLength,
    repetitionPeriod
                                                RepetitionPeriod,
    iE-Extensions
                                                ProtocolExtensionContainer { { Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs} } OPTIONAL,
```

```
Secondary-LCR-CCPCH-TDD-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-CCPCH-TDD-Code-InformationItem
Secondary-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
    iE-Extensions
                                    ProtocolExtensionContainer { {Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
    . . .
Secondary-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Secondary-LCR-CCPCH-TDD-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfSCCPCHs)) OF Secondary-LCR-CCPCH-TDD-Code-InformationItem
Secondary-LCR-CCPCH-TDD-Code-InformationItem ::= SEQUENCE {
    tDD-ChannelisationCodeLCR
                                   TDD-ChannelisationCodeLCR,
                                    ProtocolExtensionContainer { {Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
Secondary-LCR-CCPCH-TDD-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SecondInterleavingMode ::= ENUMERATED {
    frame-related,
    timeslot-related,
Seed ::= INTEGER (0..63)
SFN ::= INTEGER (0..4095)
SFNSFN-FDD ::= INTEGER(0..614399)
SFNSFN-TDD ::= INTEGER(0..40961)
SID ::= INTEGER (0..maxNrOfPDUIndexes-1)
GA-AccessPointPositionwithOptionalAltitude ::= SEQUENCE
    geographicalCoordinate
                                                GeographicalCoordinate,
    altitudeAndDirection
                                                GA-AltitudeAndDirection OPTIONAL,
                                                ProtocolExtensionContainer { { GA-AccessPointPositionwithOptionalAltitude-ExtIEs} } OPTIONAL,
    iE-Extensions
GA-AccessPointPositionwithOptionalAltitude-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
SFNSFNChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
SFNSFNDriftRate ::= INTEGER (-100..100)
-- Unit chip/s, Step 1/256 chip/s, Range -100/256..+100/256 chip/s
SFNSFNDriftRateQuality ::= INTEGER (0..100)
-- Unit chip/s, Step 1/256 chip/s, Range 0..100/256 chip/s
SFNSFNMeasurementThresholdInformation::= SEQUENCE {
    sFNSFNChangeLimit
                                        SFNSFNChangeLimit
                                                                             OPTIONAL,
    predictedSFNSFNDeviationLimit
                                        PredictedSFNSFNDeviationLimit
                                                                             OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { { SFNSFNMeasurementThresholdInformation-ExtIEs} }
                                                                                                                        OPTIONAL,
SFNSFNMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNMeasurementValueInformation ::= SEQUENCE {
    successfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformation
                                                                                         SEOUENCE (SIZE(1..maxNrOfMeasNCell)) OF
        SEOUENCE {
           uC-ID
                        UC-ID,
           sFNSFNValue
                                        SFNSFNValue,
                                        SFNSFNQuality
           sFNSFNOuality
                                                             OPTIONAL,
            sFNSFNDriftRate
                                        SFNSFNDriftRate,
            sFNSFNDriftRateQuality
                                        SFNSFNDriftRateQuality,
            sFNSFNTimeStampInformation SFNSFNTimeStampInformation,
                                        ProtocolExtensionContainer { {
            iE-Extensions
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs} }
                                                                                                 OPTIONAL,
       },
    unsuccessfull \verb+Neighbouring+ CellSFNSFNObserved+ Time \verb+Difference+ Measurement+ Information
                                                                                         SEQUENCE (SIZE(0..maxNrOfMeasNCell-1)) OF
       SEQUENCE {
           uC-ID
                        UC-ID,
                                ProtocolExtensionContainer { { UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-
            iE-Extensions
ExtIEs } }
                OPTIONAL.
       },
                        ProtocolExtensionContainer { { SFNSFNMeasurementValueInformationItem-ExtIEs} }
    iE-Extensions
                                                                                                            OPTIONAL,
SFNSFNMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
UnsuccessfullNeighbouringCellSFNSFNObservedTimeDifferenceMeasurementInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::=
SFNSFNQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip
SFNSFNTimeStampInformation ::= CHOICE {
    sFNSFNTimeStamp-FDD
    sFNSFNTimeStamp-TDD
                           SFNSFNTimeStamp-TDD,
    . . .
SFNSFNTimeStamp-TDD::= SEQUENCE {
    timeSlot
                       TimeSlot,
                                   ProtocolExtensionContainer { { SFNSFNTimeStamp-ExtIEs}} OPTIONAL,
    iE-Extensions
SFNSFNTimeStamp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
SFNSFNValue ::= CHOICE {
    sFNSFN-FDD
                   SFNSFN-FDD,
    sFNSFN-TDD
                   SFNSFN-TDD,
SID ::= INTEGER (0..maxNrOfPDUIndexes-1)
SIR-Error-Value
                      ::= INTEGER (0..125)
SIR-Error-Value-IncrDecrThres
                                    ::= INTEGER (0..124)
SIR-Value
                       ::= INTEGER (0..63)
-- According to mapping in 25.215/25.225
SIR-Value-IncrDecrThres ::= INTEGER (0..62)
SecondaryCCPCH-SlotFormat
                           ::= INTEGER (0..17,...)
-- refer to 25.211
S-FieldLength
                           ::= ENUMERATED {
    v1,
```

```
v2,
SpecialBurstScheduling ::= INTEGER (1..256)
SplitType ::= ENUMERATED {
    hard,
    logical
SpreadingFactor
                       ::= INTEGER (4 | 8 | 16 | 32 | 64 | 128 | 256)
S-RNTI
                        ::= INTEGER (0..1048575)
-- From 0 to 2^20-1
SRB-Delay ::= INTEGER(0..7,...)
SSDT-CellID ::= ENUMERATED {
    a,
    b,
    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
SSDT-SupportIndicator ::= ENUMERATED {
    sSDT-supported,
    sSDT-not-supported
STTD-Indicator ::= ENUMERATED {
    active,
    inactive
STTD-SupportIndicator ::= ENUMERATED {
    sTTD-Supported,
    sTTD-not-Supported
```

```
SyncCase ::= INTEGER (1..2,...)
SynchronisationConfiguration ::= SEQUENCE
    n-INSYNC-IND
                            INTEGER (1..256),
    n-OUTSYNC-IND
                            INTEGER (1..256),
    t-RLFAILURE
                            INTEGER (0..255),
-- Unit seconds, Range Os .. 25.5s, Step 0.1s
    iE-Extensions
                            ProtocolExtensionContainer { { SynchronisationConfiguration-ExtIEs} }
                                                                                                       OPTIONAL,
    . . .
SynchronisationConfiguration-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-ChannelisationCode
                                 ::= ENUMERATED {
    chCodeldiv1,
    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-ChannelisationCodeLCR ::= SEQUENCE {
```

```
tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
    modulation
                                    Modulation, -- Modulation options for 1.28Mcps TDD in contrast to 3.84Mcps TDD
    . . .
TDD-DCHs-to-Modify ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifyItem
TDD-DCHs-to-ModifyItem ::= SEQUENCE {
    ul-FP-Mode
                                        UL-FP-Mode OPTIONAL,
    toAWS
                                        ToAWS
                                                    OPTIONAL,
                                        ToAWE
                                                    OPTIONAL,
    toAWE
    transportBearerRequestIndicator
                                        TransportBearerRequestIndicator,
    dCH-SpecificInformationList
                                        TDD-DCHs-to-ModifySpecificInformationList,
    iE-Extensions
                                        ProtocolExtensionContainer { {TDD-DCHs-to-ModifyItem-ExtIEs} } OPTIONAL.
TDD-DCHs-to-ModifyItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DCHs-to-ModifySpecificInformationList ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF TDD-DCHs-to-ModifySpecificItem
TDD-DCHs-to-ModifySpecificItem ::= SEOUENCE {
    dCH-ID
                                    DCH-ID,
    ul-CCTrCH-ID
                                    CCTrCH-ID
                                                    OPTIONAL,
    dl-CCTrCH-ID
                                    CCTrCH-ID
                                                    OPTIONAL,
    ul-TransportformatSet
                                    TransportFormatSet OPTIONAL,
    dl-TransportformatSet
                                    TransportFormatSet OPTIONAL,
    allocationRetentionPriority
                                    AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority
                                    FrameHandlingPriority OPTIONAL,
    iE-Extensions
                                    ProtocolExtensionContainer { {TDD-DCHs-to-ModifySpecificItem-ExtIEs} } OPTIONAL,
    . . .
TDD-DCHs-to-ModifySpecificItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-Guaranteed-Rate-Information
                                            CRITICALITY ignore EXTENSION Guaranteed-Rate-Information
                                                                                                           PRESENCE optional }
     ID id-TrafficClass
                                CRITICALITY ignore EXTENSION TrafficClass
                                                                                 PRESENCE optional },
TDD-DL-Code-Information ::= SEQUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-DL-Code-InformationItem
TDD-DL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID
                                    DPCH-ID.
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
   iE-Extensions
                                    ProtocolExtensionContainer { {TDD-DL-Code-InformationItem-ExtIEs} } OPTIONAL,
TDD-DL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
TDD-DL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-DL-Code-LCR-InformationItem
TDD-DL-Code-LCR-InformationItem ::= SEQUENCE {
    dPCH-ID
                                            DPCH-ID.
    tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR.
                                            ProtocolExtensionContainer { { TDD-DL-Code-LCR-InformationItem-ExtIEs} }
    iE-Extensions
                                                                                                                          OPTIONAL,
TDD-DL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-DPCHOffset ::= CHOICE {
   initialOffset
                        INTEGER (0..255),
   noinitialOffset
                        INTEGER (0..63)
TDD-PhysicalChannelOffset
                               ::= INTEGER (0..63)
TDD-TPC-DownlinkStepSize ::= ENUMERATED {
    step-sizel,
    step-size2,
    step-size3,
TDD-UL-Code-Information ::= SEOUENCE ( SIZE (1..maxNrOfDPCHs)) OF TDD-UL-Code-InformationItem
TDD-UL-Code-InformationItem ::= SEQUENCE {
    dPCH-ID
                                    DPCH-ID,
    tDD-ChannelisationCode
                                    TDD-ChannelisationCode,
   iE-Extensions
                                    ProtocolExtensionContainer { {TDD-UL-Code-InformationItem-ExtIEs} } OPTIONAL,
TDD-UL-Code-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TDD-UL-Code-LCR-Information ::= SEQUENCE (SIZE (1..maxNrOfDPCHsLCR)) OF TDD-UL-Code-LCR-InformationItem
TDD-UL-Code-LCR-InformationItem ::= SEQUENCE {
   dPCH-ID
                                            DPCH-ID,
    tdd-ChannelisationCodeLCR
                                            TDD-ChannelisationCodeLCR.
    iE-Extensions
                                            ProtocolExtensionContainer { { TDD-UL-Code-LCR-InformationItem-ExtIEs} }
                                                                                                                          OPTIONAL,
TDD-UL-Code-LCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCI-Coding ::= ENUMERATED {
```

```
v4,
    v8,
    v16.
    v32,
    . . .
TFCI-PC-SupportIndicator ::= ENUMERATED {
    tFCI-PC-model-supported
    tFCI-PC-mode2-supported
TFCI-Presence ::= ENUMERATED {
    present,
    not-present
TFCI-SignallingMode ::= ENUMERATED {
    normal,
    split
TGD
                    ::= INTEGER (0|15..269)
-- 0 = Undefined, only one transmission gap in the transmission gap pattern sequence
TGPRC
                    ::= INTEGER (0..511)
-- 0 = infinity
                    ::= INTEGER (1.. maxTGPS)
TGPSID
                    ::= INTEGER (0..14)
TGSN
TimeSlot
                        ::= INTEGER (0..14)
TimeSlotLCR ::= INTEGER (0..6)
TimingAdvanceApplied ::= ENUMERATED {
    yes,
    no
ToAWE
                        ::= INTEGER (0..2559)
ToAWS
                        ::= INTEGER (0..1279)
TrafficClass ::= ENUMERATED {
    conversational,
    streaming,
    interactive,
    background,
Transmission-Gap-Pattern-Sequence-Information ::= SEQUENCE (SIZE (1..maxTGPS)) OF
```

```
SEQUENCE {
       tGPSID
                        TGPSID,
        t.GSN
                        TGSN,
        tGL1
                        GapLength,
        t.GL2
                        GapLength
                                    OPTIONAL,
        tGD
                        TGD,
        t.GPL1
                        GapDuration,
       tGPL2
                        GapDuration OPTIONAL,
       uL-DL-mode
                        UL-DL-mode,
                                            Downlink-Compressed-Mode-Method
        downlink-Compressed-Mode-Method
                                                                                OPTIONAL,
            -- This IE shall be 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 shall be 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,
                       DeltaSIR
                                   OPTIONAL,
        delta-SIR2
       delta-SIR-after2 DeltaSIR
                                        OPTIONAL,
                                ProtocolExtensionContainer { {Transmission-Gap-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
       iE-Extensions
Transmission-Gap-Pattern-Sequence-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
Transmission-Gap-Pattern-Sequence-ScramblingCode-Information
                                                                ::= ENUMERATED{
   code-change,
   nocode-change
Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
    SEQUENCE {
       tGPSID
                        TGPSID,
       tGPRC
                        TGPRC,
       tGCFN
       iE-Extensions
                            ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
        . . .
Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransmissionTimeIntervalDynamic ::= ENUMERATED {
   msec-10,
   msec-20,
   msec-40,
   msec-80,
    . . .
TransmissionTimeIntervalSemiStatic ::= ENUMERATED {
   msec-10,
```

```
msec-20,
   msec-40.
   msec-80.
   dynamic,
TransmitDiversityIndicator ::= ENUMERATED {
   active,
   inactive
Transmitted-Carrier-Power-Value ::= INTEGER(0..100)
-- according to mapping in [23] and [24]
Transmitted-Carrier-Power-Value-IncrDecrThres ::= INTEGER(0..100)
-- according to mapping in [23] and [24]
TUTRANGPS ::= SEQUENCE {
              INTEGER (0..16383),
   ms-part
   ls-part
               INTEGER (0..4294967295)
TUTRANGPSChangeLimit ::= INTEGER (1..256)
-- Unit chip, Step 1/16 chip, Range 1/16..16 chip
TUTRANGPSDriftRate ::= INTEGER (-50..50)
-- Unit chip/s, Step 1/256 chip/s, Range -50/256..+50/256 chip/s
TUTRANGPSDriftRateQuality ::= INTEGER (0..50)
-- Unit chip/s, Step 1/256 chip/s, Range 0..50/256 chip/s
TUTRANGPSAccuracyClass ::= ENUMERATED {
   accuracy-class-A,
   accuracy-class-B,
   accuracy-class-C,
TUTRANGPSMeasurementThresholdInformation ::= SEQUENCE
    tUTRANGPSChangeLimit
                                         TUTRANGPSChangeLimit
                                                                               OPTIONAL,
   predictedTUTRANGPSDeviationLimit
                                         PredictedTUTRANGPSDeviationLimit
                                                                               OPTIONAL,
   iE-Extensions
                                 OPTIONAL,
TUTRANGPSMeasurementThresholdInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TUTRANGPSMeasurementValueInformation ::= SEQUENCE {
       tUTRANGPS
                                     TUTRANGPS,
       tUTRANGPSQuality
                                     TUTRANGPSQuality,
```

```
tUTRANGPSDriftRate
                                        TUTRANGPSDriftRate,
       tUTRANGPSDriftRateOuality
                                        TUTRANGPSDriftRateQuality,
       iEe-Extensions
                                        ProtocolExtensionContainer { { TUTRANGPSMeasurementValueInformationItem-ExtIEs} }
TUTRANGPSMeasurementValueInformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TUTRANGPSQuality ::= INTEGER (0..255)
-- Unit chip, Step 1/16 chip, Range 0.. 255/16 chip
TransportBearerID
                        ::= INTEGER (0..4095)
TransportBearerRequestIndicator
                                    ::= ENUMERATED {
    bearer-requested,
   bearer-not-requested,
TransportBlockSize
                           ::= INTEGER (0..5000)
-- Unit is bits
TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors
                           SEQUENCE {
       betaC
                                BetaCD,
       betaD
                                BetaCD,
       refTFCNumber
                                RefTFCNumber
                                                OPTIONAL,
                                ProtocolExtensionContainer { { SignalledGainFactors-ExtIEs} } OPTIONAL,
       iE-Extensions
                            RefTFCNumber,
    refTFCNumber
SignalledGainFactors-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS ::= SEOUENCE {
    tFCSvalues
                        CHOICE {
       no-Split-in-TFCI
                                    TFCS-TFCSList,
        split-in-TFCI
                                    SEOUENCE {
            transportFormatCombination-DCH
                                                TFCS-DCHList,
            signallingMethod
                                                CHOICE {
                tFCI-Range
                                                TFCS-MapingOnDSCHList,
                explicit
                                                    TFCS-DSCHList,
                                                ProtocolExtensionContainer { { Split-in-TFCI-ExtIEs} } OPTIONAL,
           iE-Extensions
```

```
iE-Extensions
                       ProtocolExtensionContainer { { TFCS-ExtIEs} }
                                                                          OPTIONAL.
Split-in-TFCI-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
    SEQUENCE {
                           TFCS-CTFC,
       cTFC
       tFC-Beta
                    TransportFormatCombination-Beta
                                                        OPTIONAL,
       -- The IE shall be present if the TFCS concerns a UL DPCH [FDD - or PRACH channel in FDD]
       iE-Extensions ProtocolExtensionContainer { { TFCS-TFCSList-ExtIEs} }
    . . .
TFCS-TFCSList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-CTFC ::= CHOICE {
    ctfc2bit
                                       INTEGER (0..3),
    ctfc4bit
                                       INTEGER (0..15),
    ctfc6bit
                                       INTEGER (0..63),
    ctfc8bit
                                       INTEGER (0..255),
    ctfc12bit
                                       INTEGER (0..4095),
    ctfc16bit
                                       INTEGER (0..65535),
    ctfcmaxbit
                                       INTEGER (0..maxCTFC)
TFCS-DCHList ::= SEQUENCE (SIZE (1..maxTFCI1Combs)) OF
    SEQUENCE {
       cTFC
                           TFCS-CTFC,
                           ProtocolExtensionContainer { { TFCS-DCHList-ExtIEs} }
       iE-Extensions
                                                                                      OPTIONAL,
TFCS-DCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-MapingOnDSCHList ::= SEQUENCE (SIZE (1..maxNoTFCIGroups)) OF
    SEQUENCE {
       maxTFCI-field2-Value
                                   TFCS-MaxTFCI-field2-Value,
       cTFC-DSCH
                               TFCS-CTFC,
       iE-Extensions
                                   ProtocolExtensionContainer { { TFCS-MapingOnDSCHList-ExtIEs} } OPTIONAL,
```

```
TFCS-MapingOnDSCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TFCS-MaxTFCI-field2-Value ::= INTEGER (1..maxTFCI2Combs-1)
TFCS-DSCHList ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
    SEOUENCE {
       cTFC-DSCH
                                TFCS-CTFC,
                                    ProtocolExtensionContainer { { TFCS-DSCHList-ExtIEs} }
       iE-Extensions
                                                                                                OPTIONAL,
TFCS-DSCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet ::= SEQUENCE {
    dynamicParts
                           TransportFormatSet-DynamicPartList,
    semi-staticPart
                           TransportFormatSet-Semi-staticPart,
                           ProtocolExtensionContainer { {TransportFormatSet-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
TransportFormatSet-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-DynamicPartList ::= SEQUENCE (SIZE (1..maxNrOfTFs)) OF
    SEQUENCE {
       nrOfTransportBlocks
                                NrOfTransportBlocks,
                                TransportBlockSize
       transportBlockSize
                                                        OPTIONAL
        -- This IE shall be present if nrOfTransportBlocks is greater than 0 --,
                           TransportFormatSet-ModeDP,
       iE-Extensions
                                ProtocolExtensionContainer { {TransportFormatSet-DynamicPartList-ExtIEs} } OPTIONAL,
        . . .
TransportFormatSet-DynamicPartList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-ModeDP ::= CHOICE -
                       TDD-TransportFormatSet-ModeDP,
    notApplicable
                       NULL,
TDD-TransportFormatSet-ModeDP ::= SEQUENCE {
    transmissionTimeIntervalInformation
                                            TransmissionTimeIntervalInformation
    -- This IE shall be present if the "Transmission Time Interval" of the "Semi-static Transport Format Information" is "dynamic". Otherwise it is
absent.
```

```
ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
    iE-Extensions
TDD-TransportFormatSet-ModeDP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransmissionTimeIntervalInformation ::= SEQUENCE (SIZE (1..maxTTI-Count)) OF
       transmissionTimeInterval
                                   TransmissionTimeIntervalDynamic,
                                ProtocolExtensionContainer { {TransmissionTimeIntervalInformation-ExtIEs} } OPTIONAL,
       iE-Extensions
TransmissionTimeIntervalInformation-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
Transmitted-Code-Power-Value ::= INTEGER (0..127)
-- According to mapping in 25.215/25.225
Transmitted-Code-Power-Value-IncrDecrThres ::= INTEGER (0..112,...)
TransportFormatManagement ::= ENUMERATED {
    cell-based,
    ue-based,
    . . .
TransportFormatSet-Semi-staticPart ::= SEQUENCE {
    transmissionTime
                           TransmissionTimeIntervalSemiStatic,
    channelCoding
                           ChannelCodingType,
    codingRate
                        CodingRate
                                                OPTIONAL
    -- This IE shall be present if channelCoding is 'convolutional' or 'turbo' --,
    rateMatcingAttribute
                               RateMatchingAttribute,
    cRC-Size
                       CRC-Size,
                        TransportFormatSet-ModeSSP,
    mode
    iE-Extensions
                            ProtocolExtensionContainer { {TransportFormatSet-Semi-staticPart-ExtIEs} } OPTIONAL,
TransportFormatSet-Semi-staticPart-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
TransportFormatSet-ModeSSP ::= CHOICE
                   SecondInterleavingMode,
    notApplicable
TransportLayerAddress
                               ::= BIT STRING (SIZE(1..160, ...))
```

```
TrCH-SrcStatisticsDescr
                            ::= ENUMERATED {
    speech,
    rRC,
    unknown,
    . . .
TSTD-Indicator ::= ENUMERATED {
    active,
    inactive
TSTD-Support-Indicator ::= ENUMERATED {
    tSTD-supported,
    tSTD-not-supported
TxDiversityIndicator
                        ::= ENUMERATED {
    true,
    false
TypeOfError ::= ENUMERATED {
    not-understood,
   missing,
    . . .
-- U
                       ::= INTEGER (0..16383,...)
-- Corresponds to: 0.0Hz..3276.6Mhz. See 25.101, 25.105
UDRE ::= ENUMERATED {
    lessThan1,
   between1-and-4,
   between4-and-8,
    over8,
UE-Capabilities-InfoFDD ::= SEQUENCE {
    hSDSCH-TrCH-Bits-Per-HSDSCH-TTI
                                             ENUMERATED {v7300, v14600, v20456, v28800,...},
    hSDSCH-Multi-Code-Capability
                                             ENUMERATED {v5, v10, v15,...},
    min-Inter-TTI-Interval
                                             INTEGER (1..3,...),
    mAChs-Reordering-Buffer-Size
                                            INTEGER (1..300,...),
                                        ProtocolExtensionContainer { { UE-Capabilities-InfoFDD-ExtIEs } }
   iE-Extensions
                                                                                                                  OPTIONAL,
UE-Capabilities-InfoFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
UE-Capabilities-InfoTDD ::= SEQUENCE {
    hSDSCH-TrCH-Bits-Per-HSDSCH-TTI
                                            ENUMERATED {v7040, v10228, v14080,...},
    hSDSCH-Multi-Code-Capability
                                            ENUMERATED {v8, v12, v16,...},
    mAChs-Reordering-Buffer-Size
                                            INTEGER (1..300,...),
    iE-Extensions
                                        ProtocolExtensionContainer { { UE-Capabilities-InfoTDD-ExtIEs } }
                                                                                                                 OPTIONAL.
UE-Capabilities-InfoTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DL-mode ::= ENUMERATED {
    ul-only,
    dl-only,
    both-ul-and-dl
UL-Timeslot-Information::= SEOUENCE ( SIZE (1..maxNrOfTS)) OF UL-Timeslot-InformationItem
UL-Timeslot-InformationItem ::= SEQUENCE {
    timeSlot
    midambleShiftAndBurstType
                                    MidambleShiftAndBurstType,
    tFCI-Presence
                                    TFCI-Presence,
    uL-Code-Information
                                    TDD-UL-Code-Information,
    iE-Extensions
                                    ProtocolExtensionContainer { {UL-Timeslot-InformationItem-ExtIEs} } OPTIONAL,
UL-Timeslot-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    . . .
UL-TimeslotLCR-Information ::= SEQUENCE (SIZE (1..maxNrOfULTsLCR)) OF UL-TimeslotLCR-InformationItem
UL-TimeslotLCR-InformationItem ::= SEQUENCE {
    timeSlotLCR
                                            TimeSlotLCR,
    midambleShiftLCR
                                            MidambleShiftLCR,
    tFCI-Presence
                                            TFCI-Presence,
    uL-Code-LCR-InformationList
                                        TDD-UL-Code-LCR-Information,
                                            ProtocolExtensionContainer { { UL-TimeslotLCR-InformationItem-ExtIEs} }
    iE-Extensions
UL-TimeslotLCR-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-TimeSlot-ISCP-Info ::= SEQUENCE (SIZE (1..maxNrOfULTs)) OF UL-TimeSlot-ISCP-InfoItem
UL-TimeSlot-ISCP-InfoItem ::= SEQUENCE {
    timeSlot
                                TimeSlot,
    uL-TimeslotISCP
                                UL-TimeslotISCP,
                                ProtocolExtensionContainer { { UL-TimeSlot-ISCP-InfoItem-ExtIEs} } OPTIONAL,
    iE-Extensions
```

```
UL-TimeSlot-ISCP-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-TimeSlot-ISCP-LCR-Info ::= SEOUENCE (SIZE (1..maxNrOfULTsLCR)) OF UL-TimeSlot-ISCP-LCR-InfoItem
UL-TimeSlot-ISCP-LCR-InfoItem ::= SEQUENCE {
    timeSlotLCR
                                  TimeSlotLCR,
   iSCP
                                   UL-Timeslot-ISCP-Value,
                                   ProtocolExtensionContainer { { UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs} } OPTIONAL,
   iE-Extensions
UL-TimeSlot-ISCP-LCR-InfoItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-Timeslot-ISCP-Value ::= UL-TimeslotISCP
UL-Timeslot-ISCP-Value-IncrDecrThres ::= INTEGER(0..126)
-- Unit dB. Step 0.5dB
-- e.g. Value 100 means 50dB
Uplink-Compressed-Mode-Method ::= ENUMERATED {
    sFdiv2,
   higher-layer-scheduling,
                     ::= INTEGER (-82..173)
-- The UL-SIR gives the UL-SIR in number of 0.1 dB steps.
-- E.g. Value 173 means 17.3 dB
-- Unit dB. Step 0.1 dB.
UC-ID ::= SEOUENCE {
   rNC-ID
                       RNC-ID,
    c-ID
                       C-ID,
                      ProtocolExtensionContainer { {UC-ID-ExtIEs} } OPTIONAL,
   iE-Extensions
UC-ID-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-DPCCH-SlotFormat
                     ::= INTEGER (0..5,...)
UL-FP-Mode ::= ENUMERATED {
   normal,
   silent,
    . . .
```

```
UL-PhysCH-SF-Variation ::= ENUMERATED {
    sf-variation-supported,
    sf-variation-not-supported
UL-ScramblingCode ::= SEQUENCE {
    ul-ScramblingCodeNumber
                                 UL-ScramblingCodeNumber,
    ul-ScramblingCodeLength
                                 UL-ScramblingCodeLength,
    iE-Extensions
                            ProtocolExtensionContainer { {UL-ScramblingCode-ExtIEs} } OPTIONAL
UL-ScramblingCode-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
UL-ScramblingCodeLength ::= ENUMERATED {
    short,
    long
UL-ScramblingCodeNumber
                                ::= INTEGER (0..16777215)
UL-TimeslotISCP
                       ::= INTEGER (0..127)
-- According to mapping in [14]
URA-ID
                        ::= INTEGER (0..65535)
URA-Information ::= SEQUENCE {
    uRA-ID
                                         URA-ID,
    multipleURAsIndicator
                                         MultipleURAsIndicator,
    {\tt rNCsWithCellsInTheAccessedURA-List} \quad {\tt RNCsWithCellsInTheAccessedURA-List} \quad {\tt OPTIONAL},
                                         ProtocolExtensionContainer { {URA-Information-ExtIEs} } OPTIONAL,
    iE-Extensions
    . . .
URA-Information-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
RNCsWithCellsInTheAccessedURA-List ::= SEQUENCE (SIZE (1..maxRNCinURA-1)) OF RNCsWithCellsInTheAccessedURA-Item
RNCsWithCellsInTheAccessedURA-Item ::= SEQUENCE {
    rNC-ID
                                     ProtocolExtensionContainer { {RNCsWithCellsInTheAccessedURA-Item-ExtIEs} } OPTIONAL,
    iE-Extensions
RNCsWithCellsInTheAccessedURA-Item-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
USCH-ID
                        ::= INTEGER (0..255)
```

```
USCH-Information ::= SEQUENCE (SIZE (1..maxNoOfUSCHs)) OF USCH-InformationItem
USCH-InformationItem ::= SEQUENCE {
    uSCH-ID
                                        USCH-ID.
    ul-CCTrCH-ID
                                        CCTrCH-ID,
    trChSourceStatisticsDescriptor
                                        TrCH-SrcStatisticsDescr,
    transportFormatSet
                                        TransportFormatSet,
    allocationRetentionPriority
                                        AllocationRetentionPriority,
    schedulingPriorityIndicator
                                        SchedulingPriorityIndicator,
    rb-Info
                                        RB-Info,
                                        ProtocolExtensionContainer { {USCH-InformationItem-ExtIEs} } OPTIONAL,
    iE-Extensions
USCH-InformationItem-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
     ID id-TrafficClass
                               CRITICALITY ignore EXTENSION TrafficClass
                                                                                PRESENCE mandatory }
    { ID id-BindingID
                                            CRITICALITY ignore
                                                                                BindingID PRESENCE
                                                                                                                    optional }
                                                                    EXTENSION
    -- Shall be ignored if bearer establishment with ALCAP.
    { ID id-TransportLayerAddress
                                                                                                                       optional },
                                            CRITICALITY ignore
                                                                    EXTENSION
                                                                                TransportLayerAddress
                                                                                                           PRESENCE
    -- Shall be ignored if bearer establishment with ALCAP.
    . . .
-- X
-- Y
-- Z
END
```

9.3.5 Common Definitions

```
maxPrivateIEs
                                           INTEGER ::= 65535
maxProtocolExtensions
                                           INTEGER ::= 65535
maxProtocolIEs
                                           INTEGER ::= 65535
__ *********************
-- Common Data Types
__ ***********************************
Criticality
              ::= ENUMERATED { reject, ignore, notify }
Presence
              ::= ENUMERATED { optional, conditional, mandatory }
PrivateIE-ID ::= CHOICE {
                     INTEGER (0.. maxPrivateIEs),
   local
   qlobal
                     OBJECT IDENTIFIER
ProcedureCode
               ::= INTEGER (0..255)
ProcedureID ::= SEQUENCE {
   procedureCode
                         ProcedureCode,
                     ENUMERATED { tdd, fdd, common, ... }
   ddMode
ProtocolIE-ID
                 ::= INTEGER (0..maxProtocolIEs)
TransactionID
                  ::= CHOICE {
   shortTransActionId INTEGER (0..127),
   longTransActionId INTEGER (0..32767)
TriggeringMessage ::= ENUMERATED { initiating-message, successful-outcome, unsuccessful-outcome, outcome }
END
```

9.3.6 Constant Definitions

BEGIN

```
IMPORTS
   ProcedureCode.
   ProtocolIE-ID
FROM RNSAP-CommonDataTypes;
   ******************
-- Elementary Procedures
  *****************
id-commonTransportChannelResourcesInitialisation
                                                          ProcedureCode ::= 0
id-commonTransportChannelResourcesRelease
                                                          ProcedureCode ::= 1
                                                          ProcedureCode ::= 2
id-compressedModeCommand
id-downlinkPowerControl
                                                          ProcedureCode ::= 3
id-downlinkPowerTimeslotControl
                                                          ProcedureCode ::= 4
id-downlinkSignallingTransfer
                                                          ProcedureCode ::= 5
id-errorIndication
                                                          ProcedureCode ::= 6
id-dedicatedMeasurementFailure
                                                          ProcedureCode ::= 7
id-dedicatedMeasurementInitiation
                                                          ProcedureCode ::= 8
id-dedicatedMeasurementReporting
                                                          ProcedureCode ::= 9
id-dedicatedMeasurementTermination
                                                          ProcedureCode ::= 10
                                                          ProcedureCode ::= 11
id-paging
id-physicalChannelReconfiguration
                                                          ProcedureCode ::= 12
id-privateMessage
                                                          ProcedureCode ::= 13
id-radioLinkAddition
                                                          ProcedureCode ::= 14
                                                          ProcedureCode ::= 34
id-radioLinkCongestion
id-radioLinkDeletion
                                                          ProcedureCode ::= 15
id-radioLinkFailure
                                                          ProcedureCode ::= 16
id-radioLinkPreemption
                                                          ProcedureCode ::= 17
id-radioLinkRestoration
                                                          ProcedureCode ::= 18
id-radioLinkSetup
                                                          ProcedureCode ::= 19
id-relocationCommit
                                                          ProcedureCode ::= 20
id-synchronisedRadioLinkReconfigurationCancellation
                                                          ProcedureCode ::= 21
id-synchronisedRadioLinkReconfigurationCommit
                                                          ProcedureCode ::= 22
id-synchronisedRadioLinkReconfigurationPreparation
                                                          ProcedureCode ::= 23
id-unSynchronisedRadioLinkReconfiguration
                                                          ProcedureCode ::= 24
id-uplinkSignallingTransfer
                                                          ProcedureCode ::= 25
id-commonMeasurementFailure
                                                          ProcedureCode ::= 26
id-commonMeasurementInitiation
                                                          ProcedureCode ::= 27
                                                          ProcedureCode ::= 28
id-commonMeasurementReporting
id-commonMeasurementTermination
                                                          ProcedureCode ::= 29
id-informationExchangeFailure
                                                          ProcedureCode ::= 30
id-informationExchangeInitiation
                                                          ProcedureCode ::= 31
id-informationReporting
                                                          ProcedureCode ::= 32
id-informationExchangeTermination
                                                          ProcedureCode ::= 33
id-reset
                                                          ProcedureCode ::= 35
id-radioLinkActivation
                                                          ProcedureCode ::= 36
-- Lists
```

__ ********************

maxCodeNumComp-1 INTEGER ::= 255 maxRateMatching INTEGER ::= 256 maxNoCodeGroups INTEGER ::= 256 INTEGER ::= 10 maxNoOfDSCHs maxNoOfDSCHsLCR INTEGER ::= 10maxNoOfRB INTEGER ::= 32 maxNoOfUSCHs INTEGER ::= 10 maxNoOfUSCHsLCR INTEGER ::= 10 INTEGER ::= 256 maxNoTFCIGroups maxNrOfTFCs INTEGER ::= 1024 maxNrOfTFs INTEGER ::= 32 maxNrOfCCTrCHs INTEGER ::= 16 maxNrOfCCTrCHsLCR INTEGER ::= 16 maxNrOfDCHs INTEGER ::= 128 maxNrOfDL-Codes INTEGER ::= 8 maxNrOfDPCHs INTEGER ::= 240 maxNrOfDPCHsLCR INTEGER ::= 240 maxNrOfErrors INTEGER ::= 256 maxNrOfMACcshSDU-Length INTEGER ::= 16 maxNrOfPoints INTEGER ::= 15 maxNrOfRLs INTEGER ::= 16 maxNrOfRLSets INTEGER ::= maxNrOfRLs maxNrOfRLs-1 INTEGER ::= 15 -- maxNrOfRLs - 1 maxNrOfRLs-2 INTEGER ::= 14 -- maxNrOfRLs - 2 maxNrOfULTs INTEGER ::= 15 maxNrOfULTsLCR INTEGER ::= 6 maxNrOfDLTs INTEGER ::= 15 maxNrOfDLTsLCR INTEGER ::= 6 maxRNCinURA-1 INTEGER ::= 15 maxTTI-Count INTEGER ::= 4 maxCTFC INTEGER ::= 16777215 INTEGER ::= 10 maxNrOfNeighbouringRNCs maxNrOfFDDNeighboursPerRNC INTEGER ::= 256 maxNrOfGSMNeighboursPerRNC INTEGER ::= 256 maxNrOfTDDNeighboursPerRNC INTEGER ::= 256 INTEGER ::= 8 maxNrOfFACHs maxNrOfLCRTDDNeighboursPerRNC INTEGER ::= 256 maxFACHCountPlus1 INTEGER ::= 10 maxIBSEG INTEGER ::= 16 INTEGER ::= 8 maxNrOfSCCPCHs maxTFCI1Combs INTEGER ::= 512 maxTFCT2Combs INTEGER ::= 1024 maxTFCI2Combs-1 INTEGER ::= 1023 maxTGPS INTEGER ::= 6 maxNrOfTS INTEGER ::= 15 maxNrOfLevels INTEGER ::= 256 maxNrOfTsLCR INTEGER ::= 6 maxNoSat INTEGER ::= 16 maxNoGPSTypes INTEGER ::= 8 maxNrOfMeasNCell INTEGER ::= 96 maxNrOfMeasNCell-1 INTEGER ::= 95 -- maxNrOfMeasNCell - 1 maxResetContext INTEGER ::= 250

```
maxNrOfHAROProc
                                       INTEGER ::= 8
maxNrOfHSSCCHCodes
                                       INTEGER ::= 128
maxNrOfMACdFlows
                                       INTEGER ::= 8
maxNrOfMACdFlows-1
                                       INTEGER ::= 7
                                                       -- maxNrOfMACdFlows - 1
maxNrOfPDUIndexes
                                       INTEGER ::= 8
maxNrOfPDUIndexes-1
                                                       -- maxNrOfPDUIndexes - 1
                                       INTEGER ::= 7
maxNrOfPrioOueues
                                       INTEGER ::= 8
maxNrOfPrioOueues-1
                                       INTEGER ::= 7
                                                      -- maxNrOfPrioOueues - 1
id-AllowedOueuingTime
                                                                           ProtocolIE-ID ::= 4
id-Allowed-Rate-Information
                                                                           ProtocolIE-ID ::= 42
id-AntennaColocationIndicator
                                                                           ProtocolIE-ID ::= 309
id-BindingID
                                                                           ProtocolIE-ID ::= 5
id-C-ID
                                                                           ProtocolIE-ID ::= 6
id-C-RNTT
                                                                           ProtocolTE-TD ::= 7
id-Cell-Capacity-Class-Value
                                                                           ProtocolIE-ID ::= 303
id-Cell-Capacity-Class-Value-ThresholdInformation
                                                                           ProtocolIE-ID ::= 304
id-CFN
                                                                           ProtocolIE-ID ::= 8
id-CN-CS-DomainIdentifier
                                                                           ProtocolIE-ID ::= 9
id-CN-PS-DomainIdentifier
                                                                           ProtocolIE-ID ::= 10
id-Cause
                                                                           ProtocolIE-ID ::= 11
id-CoverageIndicator
                                                                           ProtocolIE-ID ::= 310
id-CriticalityDiagnostics
                                                                           ProtocolIE-ID ::= 20
id-ContextInfoItem-Reset
                                                                           ProtocolIE-ID ::= 211
id-D-RNTI
                                                                           ProtocolIE-ID ::= 21
id-D-RNTI-ReleaseIndication
                                                                           ProtocolIE-ID ::= 22
id-DCHs-to-Add-FDD
                                                                           ProtocolIE-ID ::= 26
id-DCHs-to-Add-TDD
                                                                           ProtocolIE-ID ::= 27
id-DCH-DeleteList-RL-ReconfPrepFDD
                                                                           ProtocolIE-ID ::= 30
id-DCH-DeleteList-RL-ReconfPrepTDD
                                                                           ProtocolIE-ID ::= 31
id-DCH-DeleteList-RL-ReconfRqstFDD
                                                                           ProtocolIE-ID ::= 32
id-DCH-DeleteList-RL-ReconfRqstTDD
                                                                           ProtocolIE-ID ::= 33
id-DCH-FDD-Information
                                                                           ProtocolIE-ID ::= 34
id-DCH-TDD-Information
                                                                           ProtocolIE-ID ::= 35
id-FDD-DCHs-to-Modify
                                                                           ProtocolIE-ID ::= 39
id-TDD-DCHs-to-Modify
                                                                           ProtocolIE-ID ::= 40
id-DCH-InformationResponse
                                                                           ProtocolIE-ID ::= 43
id-DCH-Rate-InformationItem-RL-CongestInd
                                                                           ProtocolIE-ID ::= 38
id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD
                                                                           ProtocolIE-ID ::= 44
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD
                                                                           ProtocolIE-ID ::= 45
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD
                                                                           ProtocolIE-ID ::= 46
id-DL-CCTrCH-InformationItem-RL-SetupRgstTDD
                                                                           ProtocolIE-ID ::= 47
id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD
                                                                           ProtocolIE-ID ::= 48
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD
                                                                           ProtocolIE-ID ::= 49
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD
                                                                           ProtocolIE-ID ::= 50
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD
                                                                           ProtocolIE-ID ::= 51
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD
                                                                           ProtocolIE-ID ::= 52
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD
                                                                           ProtocolIE-ID ::= 53
```

```
id-FDD-DL-CodeInformation
                                                                             ProtocolIE-ID ::= 54
id-DL-DPCH-Information-RL-ReconfPrepFDD
                                                                             ProtocolIE-ID ::= 59
id-DL-DPCH-Information-RL-SetupRgstFDD
                                                                             ProtocolIE-ID ::= 60
id-DL-DPCH-Information-RL-ReconfRqstFDD
                                                                             ProtocolIE-ID ::= 61
id-DL-DPCH-InformationItem-PhyChReconfRgstTDD
                                                                             ProtocolIE-ID ::= 62
id-DL-DPCH-InformationItem-RL-AdditionRspTDD
                                                                             ProtocolIE-ID ::= 63
id-DL-DPCH-InformationItem-RL-SetupRspTDD
                                                                             ProtocolIE-ID ::= 64
id-DL-DPCH-TimingAdjustment
                                                                             ProtocolIE-ID ::= 278
id-DLReferencePower
                                                                             ProtocolTE-TD ::= 67
id-DLReferencePowerList-DL-PC-Rgst
                                                                             ProtocolIE-ID ::= 68
id-DL-ReferencePowerInformation-DL-PC-Rgst
                                                                             ProtocolIE-ID ::= 69
id-DPC-Mode
                                                                             ProtocolIE-ID ::= 12
id-DRXCvcleLengthCoefficient
                                                                             ProtocolIE-ID ::= 70
id-DedicatedMeasurementObjectType-DM-Rprt
                                                                             ProtocolIE-ID ::= 71
id-DedicatedMeasurementObjectType-DM-Rgst
                                                                             ProtocolIE-ID ::= 72
id-DedicatedMeasurementObjectType-DM-Rsp
                                                                             ProtocolIE-ID ::= 73
id-DedicatedMeasurementType
                                                                             ProtocolIE-ID ::= 74
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD
                                                                             ProtocolIE-ID ::= 82
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD
                                                                             ProtocolIE-ID ::= 83
id-Guaranteed-Rate-Information
                                                                             ProtocolIE-ID ::= 41
id-TMST
                                                                             ProtocolTE-TD ::= 84
id-HCS-Prio
                                                                             ProtocolIE-ID ::= 311
id-L3-Information
                                                                             ProtocolTE-TD ::= 85
id-AdjustmentPeriod
                                                                             ProtocolIE-ID ::= 90
id-MaxAdiustmentStep
                                                                             ProtocolIE-ID ::= 91
id-MeasurementFilterCoefficient
                                                                             ProtocolIE-ID ::= 92
id-MessageStructure
                                                                             ProtocolIE-ID ::= 57
id-Measurement.ID
                                                                             ProtocolIE-ID ::= 93
id-Neighbouring-GSM-CellInformation
                                                                             ProtocolIE-ID ::= 13
id-Neighbouring-UMTS-CellInformationItem
                                                                             ProtocolIE-ID ::= 95
id-NRT-Load-Information-Value
                                                                             ProtocolIE-ID ::= 305
id-NRT-Load-Information-Value-IncrDecrThres
                                                                             ProtocolIE-ID ::= 306
id-PagingArea-PagingRgst
                                                                             ProtocolIE-ID ::= 102
id-FACH-FlowControlInformation
                                                                             ProtocolIE-ID ::= 103
id-Permanent-NAS-UE-Identity
                                                                             ProtocolIE-ID ::= 17
id-PowerAdiustmentType
                                                                             ProtocolIE-ID ::= 107
id-RANAP-RelocationInformation
                                                                             ProtocolIE-ID ::= 109
id-RL-Information-PhyChReconfRgstFDD
                                                                             ProtocolIE-ID ::= 110
id-RL-Information-PhyChReconfRgstTDD
                                                                             ProtocolIE-ID ::= 111
id-RL-Information-RL-AdditionRgstFDD
                                                                             ProtocolIE-ID ::= 112
id-RL-Information-RL-AdditionRgstTDD
                                                                             ProtocolIE-ID ::= 113
id-RL-Information-RL-DeletionRgst
                                                                             ProtocolIE-ID ::= 114
id-RL-Information-RL-FailureInd
                                                                             ProtocolIE-ID ::= 115
id-RL-Information-RL-ReconfPrepFDD
                                                                             ProtocolIE-ID ::= 116
id-RL-Information-RL-RestoreInd
                                                                             ProtocolIE-ID ::= 117
id-RL-Information-RL-SetupRgstFDD
                                                                             ProtocolIE-ID ::= 118
id-RL-Information-RL-SetupRgstTDD
                                                                             ProtocolIE-ID ::= 119
id-RL-InformationItem-RL-CongestInd
                                                                             ProtocolIE-ID ::= 55
id-RL-InformationItem-DM-Rprt
                                                                             ProtocolIE-ID ::= 120
id-RL-InformationItem-DM-Rgst
                                                                             ProtocolIE-ID ::= 121
id-RL-InformationItem-DM-Rsp
                                                                             ProtocolIE-ID ::= 122
id-RL-InformationItem-RL-PreemptRequiredInd
                                                                             ProtocolIE-ID ::= 2
id-RL-InformationItem-RL-SetupRqstFDD
                                                                             ProtocolIE-ID ::= 123
id-RL-InformationList-RL-CongestInd
                                                                             ProtocolIE-ID ::= 56
```

id-RL-InformationList-RL-AdditionRqstFDD	ProtocolIE-ID ::= 124
id-RL-InformationList-RL-DeletionRqst	ProtocolIE-ID ::= 125
id-RL-InformationList-RL-PreemptRequiredInd	ProtocolIE-ID ::= 1
id-RL-InformationList-RL-ReconfPrepFDD	ProtocolIE-ID ::= 126
id-RL-InformationResponse-RL-AdditionRspTDD	ProtocolIE-ID ::= 127
id-RL-InformationResponse-RL-ReconfReadyTDD	ProtocolIE-ID ::= 128
id-RL-InformationResponse-RL-SetupRspTDD	ProtocolIE-ID ::= 129
id-RL-InformationResponseItem-RL-AdditionRspFDD	ProtocolIE-ID ::= 130
id-RL-InformationResponseItem-RL-ReconfReadyFDD	ProtocolIE-ID ::= 131
id-RL-InformationResponseItem-RL-ReconfRspFDD	ProtocolIE-ID ::= 132
id-RL-InformationResponseItem-RL-SetupRspFDD	ProtocolIE-ID ::= 133
id-RL-InformationResponseList-RL-AdditionRspFDD	ProtocolIE-ID ::= 134
id-RL-InformationResponseList-RL-ReconfReadyFDD	ProtocolIE-ID ::= 135
id-RL-InformationResponseList-RL-ReconfRspFDD	ProtocolIE-ID ::= 136
id-RL-InformationResponse-RL-ReconfRspTDD	ProtocolIE-ID ::= 28
id-RL-InformationResponseList-RL-SetupRspFDD	ProtocolIE-ID ::= 137
id-RL-ReconfigurationFailure-RL-ReconfFail	ProtocolIE-ID ::= 141
id-RL-Set-InformationItem-DM-Rprt	ProtocolIE-ID ::= 143
id-RL-Set-InformationItem-DM-Rqst	ProtocolIE-ID ::= 144
id-RL-Set-InformationItem-DM-Rsp	ProtocolIE-ID ::= 145
id-RL-Set-Information-RL-FailureInd	ProtocolIE-ID ::= 146
id-RL-Set-Information-RL-RestoreInd	ProtocolIE-ID ::= 147
id-ReportCharacteristics	ProtocolIE-ID ::= 152
id-Reporting-Object-RL-FailureInd	ProtocolIE-ID ::= 153
id-Reporing-Object-RL-RestoreInd	ProtocolIE-ID ::= 154
id-RT-Load-Value	ProtocolIE-ID ::= 307
id-RT-Load-Value-IncrDecrThres	ProtocolIE-ID ::= 308
id-S-RNTI	ProtocolIE-ID ::= 155
id-ResetIndicator	ProtocolIE-ID ::= 244
id-RNC-ID	ProtocolIE-ID ::= 245
id-SAI	ProtocolIE-ID ::= 156
id-SRNC-ID	ProtocolIE-ID ::= 157
id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD	ProtocolIE-ID ::= 159
id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD	ProtocolIE-ID ::= 160
id-TransportBearerID	ProtocolIE-ID ::= 163
id-TransportBearerRequestIndicator	ProtocolIE-ID ::= 164
id-TransportLayerAddress	ProtocolIE-ID ::= 165
id-TypeOfError	ProtocolIE-ID ::= 140
id-UC-ID	ProtocoliE-ID ::= 140
id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD	ProtocoliE-ID ::= 167
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD	ProtocoliE-ID ::= 169
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD	ProtocoliE-ID ::= 171
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD	ProtocoliE-ID ::= 171
id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD	ProtocoliE-ID ::= 173
id-UL-CCTrCH-InformationListIE-PhychkecontrqstIDD	ProtocoliE-ID ::= 173
id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD	ProtocoliE-ID ::= 174 ProtocoliE-ID ::= 175
	ProtocoliE-ID ::= 175
<pre>id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD id-UL-DPCH-Information-RL-ReconfPrepFDD</pre>	ProtocoliE-ID ::= 176 ProtocoliE-ID ::= 177
id-UL-DPCH-Information-RL-ReconfRqstFDD	ProtocolIE-ID ::= 178
id-UL-DPCH-Information-RL-SetupRqstFDD	ProtocolIE-ID ::= 179
id-UL-DPCH-InformationItem-PhyChReconfRqstTDD	ProtocolIE-ID ::= 180
id-UL-DPCH-InformationItem-RL-AdditionRspTDD	ProtocolIE-ID ::= 181
id-UL-DPCH-InformationItem-RL-SetupRspTDD	ProtocolIE-ID ::= 182
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD	ProtocolIE-ID ::= 183

id-UL-SIRTarget	ProtocolIE-ID ::= 184
id-URA-Information	ProtocolIE-ID ::= 185
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD	ProtocolIE-ID ::= 188
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD	ProtocolIE-ID ::= 189
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD	ProtocolIE-ID ::= 190
id-Active-Pattern-Sequence-Information	ProtocolIE-ID ::= 193
id-AdjustmentRatio	ProtocolIE-ID ::= 194
id-CauseLevel-RL-AdditionFailureFDD	ProtocolIE-ID ::= 197
id-CauseLevel-RL-AdditionFailureTDD	ProtocolIE-ID ::= 198
id-CauseLevel-RL-ReconfFailure	ProtocolIE-ID ::= 199
id-CauseLevel-RL-SetupFailureFDD	ProtocolIE-ID ::= 200
id-CauseLevel-RL-SetupFailureTDD	ProtocolIE-ID ::= 201
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD	ProtocolIE-ID ::= 205
id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD	ProtocolIE-ID ::= 206
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD	ProtocolIE-ID ::= 207
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 208
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 209
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 210
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD	ProtocolIE-ID ::= 212
id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD	ProtocolIE-ID ::= 213
id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD	ProtocolIE-ID ::= 214
id-DSCHs-to-Add-TDD	ProtocolIE-ID ::= 215
id-DSCHs-to-Add-FDD	ProtocolIE-ID ::= 216
id-DSCH-DeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 217
id-DSCH-Delete-RL-ReconfPrepFDD	ProtocolIE-ID ::= 218
id-DSCH-FDD-Information	ProtocolIE-ID ::= 219
id-DSCH-InformationListIE-RL-AdditionRspTDD	ProtocoliE-ID ::= 220
id-DSCH-InformationListIEs-RL-SetupRspTDD	ProtocolIE-ID ::= 221
id-DSCH-TDD-Information	ProtocolIE-ID ::= 222
id-DSCH-FDD-InformationResponse	ProtocolIE-ID ::= 223
id-DSCH-Information-RL-SetupRqstFDD	ProtocolIE-ID ::= 226
id-DSCH-ModifyList-RL-ReconfPrepTDD	ProtocoliE-ID ::= 227
-	ProtocoliE-ID ::= 227 ProtocolIE-ID ::= 228
id-DSCH-Modify-RL-ReconfPrepFDD id-DSCHsToBeAddedOrModified-FDD	ProtocoliE-ID ::= 228 ProtocoliE-ID ::= 229
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD	ProtocolIE-ID ::= 230
id-EnhancedDSCHPC	ProtocolIE-ID ::= 29
id-EnhancedDSCHPCIndicator	ProtocolIE-ID ::= 225
id-GA-Cell	ProtocolIE-ID ::= 232
id-GA-CellAdditionalShapes	ProtocolIE-ID ::= 3
id-SSDT-CellIDforEDSCHPC	ProtocolIE-ID ::= 246
id-Transmission-Gap-Pattern-Sequence-Information	ProtocolIE-ID ::= 255
id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD	ProtocolIE-ID ::= 256
id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD	ProtocolIE-ID ::= 257
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 258
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 259
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 260
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 261
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 262
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 263
id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD	ProtocolIE-ID ::= 264
id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD	ProtocolIE-ID ::= 265
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD	ProtocolIE-ID ::= 266
id-USCHs-to-Add	ProtocolIE-ID ::= 267
id-USCH-DeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 268

id-USCH-InformationListIE-RL-AdditionRspTDD Prot	cocoliE-ID ::= 269
The state of the s	cocoliE-ID ::= 270
	cocolIE-ID ::= 271
	cocoliE-ID ::= 272
	cocolIE-ID ::= 273
	cocolIE-ID ::= 274
<u> </u>	cocoliE-ID ::= 275
	cocolIE-ID ::= 276
1 11	cocoliE-ID ::= 277
	cocolIE-ID ::= 279
• •	cocolIE-ID ::= 14
3 3 3 1	cocolIE-ID ::= 23
•	cocolIE-ID ::= 24
· · · ·	cocolIE-ID ::= 25
9	cocoliE-ID ::= 36
	cocoliE-ID ::= 37
	cocolIE-ID ::= 15
	cocolIE-ID ::= 16
	cocolIE-ID ::= 280
3 11 1	cocoliE-ID ::= 281
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	cocoliE-ID ::= 282
	cocolIE-ID ::= 283
	cocoliE-ID ::= 284
g .	cocolIE-ID ::= 18
	cocolIE-ID ::= 285
	cocolIE-ID ::= 286
	cocolIE-ID ::= 287
3 3 11 1	cocolIE-ID ::= 288
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	cocolIE-ID ::= 289
	cocolIE-ID ::= 290
<u>-</u>	cocolIE-ID ::= 291
	cocoliE-ID ::= 292
	cocoliE-ID ::= 58
	cocolIE-ID ::= 65
	cocoliE-ID ::= 66
± ±	cocoliE-ID ::= 75
	cocoliE-ID ::= 76
	cocoliE-ID ::= 77
	cocoliE-ID ::= 78
	cocoliE-ID ::= 79
	cocoliE-ID ::= 80
	cocoliE-ID ::= 81
	cocoliE-ID ::= 86
	cocoliE-ID ::= 87
	cocoliE-ID ::= 88
	cocoliE-ID ::= 89
-	cocolIE-ID ::= 94
-	cocoliE-ID ::= 97
	cocoliE-ID ::= 98
	cocoliE-ID ::= 100
• • • • • • • • • • • • • • • • • • •	cocolIE-ID ::= 101
· · · · · · · · · · · · · · · · · · ·	cocolIE-ID ::= 104
14 OH TIMESTOC BEN THIOTMACTORBISC-PHYCHNECORRAGICEDD PROC	*OCOTIE-ID ••- 102

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id-DL-Timeslot-LCR-InformationList-PhyChReconfRqstTDD	ProtocolIE-ID ::= 106
id-timeSlot-ISCP-LCR-List-DL-PC-Rqst-TDD	ProtocolIE-ID ::= 138
id-TSTD-Support-Indicator-RL-SetupRqstTDD	ProtocolIE-ID ::= 139
id-RestrictionStateIndicator	ProtocolIE-ID ::= 142
id-Load-Value	ProtocolIE-ID ::= 233
id-Load-Value-IncrDecrThres	ProtocolIE-ID ::= 234
id-OnModification	ProtocolIE-ID ::= 235
id-Received-Total-Wideband-Power-Value	ProtocolIE-ID ::= 236
id-Received-Total-Wideband-Power-Value-IncrDecrThres	ProtocolIE-ID ::= 237
id-SFNSFNMeasurementThresholdInformation	ProtocolIE-ID ::= 238
id-Transmitted-Carrier-Power-Value	ProtocolIE-ID ::= 239
id-Transmitted-Carrier-Power-Value-IncrDecrThres	ProtocolIE-ID ::= 240
id-TUTRANGPSMeasurementThresholdInformation	ProtocolIE-ID ::= 241
id-UL-Timeslot-ISCP-Value	ProtocolIE-ID ::= 242
id-UL-Timeslot-ISCP-Value-IncrDecrThres	ProtocolIE-ID ::= 243
id-Rx-Timing-Deviation-Value-LCR	ProtocolIE-ID ::= 293
id-DPC-Mode-Change-SupportIndicator	ProtocolIE-ID ::= 19
id-SplitType	ProtocolIE-ID ::= 247
id-LengthOfTFCI2	ProtocolIE-ID ::= 295
id-PrimaryCCPCH-RSCP-RL-ReconfPrepTDD	ProtocolIE-ID ::= 202
id-DL-TimeSlot-ISCP-Info-RL-ReconfPrepTDD	ProtocolIE-ID ::= 203
id-DL-Timeslot-ISCP-LCR-Information-RL-ReconfPrepTDD	ProtocolIE-ID ::= 204
id-DSCH-RNTI	ProtocolIE-ID ::= 249
id-DL-PowerBalancing-Information	ProtocolIE-ID ::= 296
id-DL-PowerBalancing-ActivationIndicator	ProtocolIE-ID ::= 297
id-DL-PowerBalancing-UpdatedIndicator	ProtocolIE-ID ::= 298
id-DL-ReferencePowerInformation	ProtocolIE-ID ::= 299
id-Enhanced-PrimaryCPICH-EcNo	ProtocolIE-ID ::= 224
id-IPDL-TDD-ParametersLCR	ProtocolIE-ID ::= 252
id-CellCapabilityContainer-FDD	ProtocolIE-ID ::= 300
id-CellCapabilityContainer-TDD	ProtocolIE-ID ::= 301
id-CellCapabilityContainer-TDD-LCR	ProtocolIE-ID ::= 302
id-RL-Specific-DCH-Info	ProtocolIE-ID ::= xxx
id-RL-ReconfigurationRequestFDD-RL-InformationList	ProtocolIE-ID ::= xxx
id-RL-ReconfigurationRequestFDD-RL-Information-IEs	ProtocolIE-ID ::= xxx
id-RL-ReconfigurationReadyTDD-RL-Information	ProtocolIE-ID ::= xxx
id-RL-ReconfigurationRequestTDD-RL-Information	ProtocolIE-ID ::= xxx
id-CommonTransportChannelResourcesInitialisationNotRequired	ProtocolIE-ID ::= 250
id-DelayedActivation	ProtocolIE-ID ::= 312
id-DelayedActivationList-RL-ActivationCmdFDD	ProtocolIE-ID ::= 313
id-DelayedActivationInformation-RL-ActivationCmdFDD	ProtocolIE-ID ::= 314
id-DelayedActivationList-RL-ActivationCmdTDD	ProtocoliE-ID ::= 315
id-DelayedActivationInformation-RL-ActivationCmdTDD	ProtocoliE-ID ::= 316
id-neighbouringTDDCellMeasurementInformationLCR	ProtocoliE-ID ::= 251
id-HeighbouringTDDCeilmeasurementInformationLck id-UL-SIR-Target-CCTrCH-InformationItem-RL-SetupRspTDD	ProtocoliE-ID ::= 251 ProtocolIE-ID ::= 150
id-UL-SIR-Target-CCTrCH-LCR-InformationItem-RL-SetupRspTDD	ProtocolIE-ID ::= 151
id-PrimCCPCH-RSCP-DL-PC-RqstTDD	ProtocolIE-ID ::= 451
id-HSDSCH-FDD-Information	ProtocolIE-ID ::= 452
id-HSDSCH-FDD-Information-Response id-HSDSCH-FDD-Information-to-Add	ProtocolIE-ID ::= 453
	ProtocolIE-ID ::= 454
id-HSDSCH-FDD-Information-to-Delete	ProtocolIE-ID ::= 455
id-HSDSCH-Information-to-Modify id-HSDSCH-RNTI	ProtocolIE-ID ::= 456 ProtocolIE-ID ::= 457
id-HSDSCH-RNTI id-HSDSCH-TDD-Information	ProtocoliE-ID ::= 457 ProtocolIE-ID ::= 458
TO HODOCH TOD THEOLIGACTON	FIOCOCOTIE-ID ··= 458

```
id-HSDSCH-TDD-Information-Response
                                                                             ProtocolIE-ID ::= 459
id-HSDSCH-TDD-Information-Response-LCR
                                                                             ProtocolIE-ID ::= 460
id-HSDSCH-TDD-Information-to-Add
                                                                             ProtocolIE-ID ::= 461
id-HSDSCH-TDD-Information-to-Delete
                                                                             ProtocolIE-ID ::= 462
id-HSPDSCH-RL-ID
                                                                             ProtocolIE-ID ::= 463
id-Angle-Of-Arrival-Value-LCR
                                                                             ProtocolIE-ID ::= 148
id-TrafficClass
                                                                             ProtocolIE-ID ::= 158
id-TFCI-PC-SupportIndicator
                                                                             ProtocolIE-ID ::= 248
```

END

9.3.7 Container Definitions

```
__ *********************
-- Container definitions
__ ***********************************
RNSAP-Containers {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-Containers (5) }
DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
__ ********************
-- IE parameter types from other modules.
__ *******************
IMPORTS
   maxPrivateIEs,
   maxProtocolExtensions,
   maxProtocolIEs,
   Criticality,
   Presence,
   PrivateIE-ID.
   ProtocolIE-ID
FROM RNSAP-CommonDataTypes;
  ******************
-- Class Definition for Protocol IEs
__ ********************
RNSAP-PROTOCOL-IES ::= CLASS {
              ProtocolIE-ID
                                       UNIQUE,
   &criticality
                    Criticality,
   &Value,
```

```
&presence
                     Presence
WITH SYNTAX {
   ID
                 &id
   CRITICALITY
                     &criticality
   TYPE
                     &Value
   PRESENCE
                     &presence
  Class Definition for Protocol IEs
  RNSAP-PROTOCOL-IES-PAIR ::= CLASS {
                 ProtocolIE-ID
                                              UNIQUE,
   &firstCriticality
                        Criticality,
   &FirstValue,
   &secondCriticality
                        Criticality,
   &SecondValue,
   &presence
                     Presence
WITH SYNTAX {
                 &id
   ID
   FIRST CRITICALITY
                        &firstCriticality
                     &FirstValue
   FIRST TYPE
   SECOND CRITICALITY
                        &secondCriticality
                     &SecondValue
   SECOND TYPE
   PRESENCE
                     &presence
-- Class Definition for Protocol Extensions
  ****************
RNSAP-PROTOCOL-EXTENSION ::= CLASS {
                 ProtocolIE-ID
                                          UNIQUE,
   &criticality
                        Criticality,
   &Extension,
   &presence
                 Presence
WITH SYNTAX {
                 &id
   ID
   CRITICALITY
                     &criticality
   EXTENSION
                     &Extension
   PRESENCE
                     &presence
-- Class Definition for Private IEs
```

```
RNSAP-PRIVATE-IES ::= CLASS {
                PrivateIE-ID.
               Criticality,
   &criticality
   &Value,
   &presence
                Presence
WITH SYNTAX {
                &id
   TD
   CRITICALITY
                   &criticality
   TYPE
                &Value
   PRESENCE
                   &presence
  Container for Protocol IEs
  ····
ProtocolIE-Container {RNSAP-PROTOCOL-IES : IEsSetParam} ::=
   SEQUENCE (SIZE (0..maxProtocolIEs)) OF
   ProtocolIE-Field {{IEsSetParam}}
ProtocolIE-Single-Container {RNSAP-PROTOCOL-IES : IESSetParam} ::=
   ProtocolIE-Field {{IEsSetParam}}
ProtocolIE-Field {RNSAP-PROTOCOL-IES : IEsSetParam} ::= SEQUENCE {
   id RNSAP-PROTOCOL-IES.&id
                                             ({IEsSetParam}),
   criticality
                RNSAP-PROTOCOL-IES.&criticality
                                                   ({IEsSetParam}{@id}),
                   RNSAP-PROTOCOL-IES.&Value
                                                    ({IEsSetParam}{@id})
    ****************
-- Container for Protocol IE Pairs
   **************
ProtocolIE-ContainerPair {RNSAP-PROTOCOL-IES-PAIR : IEsSetParam} ::=
   SEQUENCE (SIZE (0..maxProtocolIEs)) OF
   ProtocolIE-FieldPair {{IEsSetParam}}
ProtocolIE-FieldPair {RNSAP-PROTOCOL-IES-PAIR : IESSetParam} ::= SEQUENCE {
   id RNSAP-PROTOCOL-IES-PAIR.&id
                                         ({IEsSetParam}),
   firstCriticality RNSAP-PROTOCOL-IES-PAIR.&firstCriticality ({IEsSetParam}{@id}),
   firstValue
                   RNSAP-PROTOCOL-IES-PAIR.&FirstValue
                                                        ({IEsSetParam}{@id}),
   secondCriticality RNSAP-PROTOCOL-IES-PAIR.&secondCriticality ({IEsSetParam}{@id}),
   secondValue
              RNSAP-PROTOCOL-IES-PAIR.&SecondValue
                                                           ({IEsSetParam}{@id})
  ******************
```

```
-- Container Lists for Protocol IE Containers
  *****************
ProtocolIE-ContainerList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES : IESSetParam} ::=
   SEQUENCE (SIZE (lowerBound..upperBound)) OF
   ProtocolIE-Container {{IEsSetParam}}
ProtocolIE-ContainerPairList {INTEGER : lowerBound, INTEGER : upperBound, RNSAP-PROTOCOL-IES-PAIR : IESSetParam} ::=
   SEQUENCE (SIZE (lowerBound..upperBound)) OF
   ProtocolIE-ContainerPair {{IEsSetParam}}
   -- Container for Protocol Extensions
  *****************
ProtocolExtensionContainer {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::=
   SEQUENCE (SIZE (1..maxProtocolExtensions)) OF
   ProtocolExtensionField {{ExtensionSetParam}}
ProtocolExtensionField {RNSAP-PROTOCOL-EXTENSION : ExtensionSetParam} ::= SEQUENCE {
          RNSAP-PROTOCOL-EXTENSION.&id
                                                  ({ExtensionSetParam}),
   criticality RNSAP-PROTOCOL-EXTENSION.&criticality
                                                         ({ExtensionSetParam}{@id}),
                                                         ({ExtensionSetParam}{@id})
   extensionValue
                 RNSAP-PROTOCOL-EXTENSION. & Extension
      ******************
-- Container for Private IEs
__ ********************
PrivateIE-Container {RNSAP-PRIVATE-IES : IEsSetParam} ::=
   SEQUENCE (SIZE (1..maxPrivateIEs)) OF
   PrivateIE-Field {{IEsSetParam}}
PrivateIE-Field {RNSAP-PRIVATE-IES : IESSetParam} ::= SEQUENCE
                                           ({IEsSetParam}),
                RNSAP-PRIVATE-IES.&id
   criticality
                                                 ({IEsSetParam}{@id}),
                RNSAP-PRIVATE-IES.&criticality
   value
         RNSAP-PRIVATE-IES.&Value
                                       ({IEsSetParam}{@id})
END
```

9.4 Message Transfer Syntax

RNSAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [20].

The following encoding rules apply in addition to what has been specified in X.691 [20]:

When a bitstring value is placed in a bit-field as specified in 15.6 to 15.11 in [20], the leading bit of the bitstring value shall be placed in the leading bit of the bit-field, and the trailing bit of the bitstring value shall be placed in the trailing bit of the bit-field.

NOTE - When using the "bstring" notation, the leading bit of the bitstring value is on the left, and the trailing bit of the bitstring value is on the right. The term 'leading bit' is to be interpreted as equal to the term 'first bit' defined in [18].

9.5 Timers

T Preempt

 Specifies the maximum time that a DRNS may wait for pre-emption of resources for establishment or reconfiguration of Radio Links.

Handling of Unknown, Unforeseen and Erroneous Protocol Data

10.1 General

Protocol Error cases can be divided into three classes:

- 1. Transfer Syntax Error;
- 2. Abstract Syntax Error;
- 3. Logical Error.

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

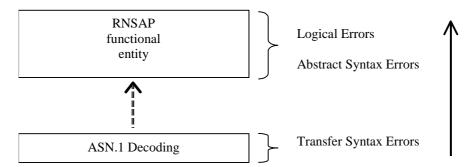


Figure 34: Protocol Errors in RNSAP

The information stated in subclauses 10.2, 10.3 and 10.4, to be included in the message used when reporting an error, is what at minimum shall be included. Other optional information elements within the message may also be included, if available. This is also valid for the case when the reporting is done with a response message. The latter is an exception to what is stated in subclause 4.1.

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 RNSAP entity:

- 1. Receives IEs or IE groups that cannot be understood (unknown IE 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;
- 5 receives IEs or IE groups but according to the conditional presence of the concerning object and the specified condition, the IEs or IE groups should not have been present in the received message.

Cases 1 and 2 (not comprehended IE/IE group) are handled based on received Criticality information. Case 3 (missing IE/IE group) is handled based on Criticality information and Presence information for the missing IE/IE group specified in the version of the specification used by the receiver. Case 4 (IEs or IE groups in wrong order or with too many occurrences) and Case 5 (erroneously present conditional IEs or IE groups) result 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 cases 4 and 5 is specified in subclause 10.3.6.

10.3.2 Criticality Information

In the RNSAP 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 subclause 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:

- 1. Reject IE;
- 2. Ignore IE and Notify Sender;
- 3. 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 a receiving entity (some may still remain unsupported).

Note that this restriction is not 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.

When the criticality information cannot even be decoded in a not comprehended IE or IE group, the Error Indication procedure shall be initiated with an appropriate cause value.

10.3.3 Presence Information

For many IEs/IE groups which are optional according to the ASN.1 transfer syntax, RNSAP 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 f the concerning object of class RNSAP-PROTOCOL-IES, RNSAP-PROTOCOL-IES-PAIR, RNSAP-PROTOCOL-EXTENSION or RNSAP-PRIVATE-IES.

The presence field of the indicated classes supports three values:

- 1. Optional;
- 2. Conditional;
- 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.

If an IE/IE group is included in a received message and the presence of the IE/IE group is conditional and the condition is false according to the version of the specification used by the receiver, an abstract syntax error occurs due to this erroneously present conditional 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.

When using the Error Indication procedure to reject a procedure or to report an ignored procedure it shall include the *Procedure ID* IE, the *Triggering Message* IE, and the *Procedure Criticality* IE in the *Criticality Diagnostics* IE.

10.3.4.1A Type of Message

When the receiving node cannot decode the *Type of Message* IE, the Error Indication procedure shall be initiated with an appropriate cause value.

10.3.4.2 IEs other than the Procedure ID and Type of Message

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. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication 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 terminate the procedure and 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 consider the procedure as unsuccessfully terminated and 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 in the response message of the procedure that one or more IEs/IE groups have been ignored. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- 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, 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.

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.

- If a *response* message 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.

When reporting not comprehended IEs/IE groups marked with "Reject IE" or "Ignore IE and Notify Sender" using a response message defined for the procedure, the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

When reporting not comprehended IEs/IE groups marked with "Reject IE" or "Ignore IE and Notify Sender" using the Error Indication procedure, the Procedure ID IE, the Triggering Message IE, Procedure Criticality IE, the Transaction ID IE, and the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the not comprehended IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

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. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication 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 terminate the procedure and 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 consider the procedure as unsuccessfully terminated and 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 ignore that those IEs are missing and 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. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the response message, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- 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 ignore that those IEs are missing and 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 ignore that those IEs are missing and 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.

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 ignore that those IEs are missing and continue with the procedure based on the other IEs/IE groups present in the message.

- If a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall ignore that those IEs/IE groups are missing and continue with the procedure based on the other IEs/IE groups present in the message.

When reporting missing IEs/IE groups with specified criticality "Reject IE" or "Ignore IE and Notify Sender" using a response message defined for the procedure, the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

When reporting missing IEs/IE groups with specified criticality "Reject IE" or "Ignore IE and Notify Sender" using the Error Indication procedure, the Procedure ID IE, the Triggering Message IE, Procedure Criticality IE, the Transaction ID IE, and the Information Element Criticality Diagnostics IE shall be included in the Criticality Diagnostics IE for each reported IE/IE group. In the Information Element Criticality Diagnostics IE the Repetition Number IE shall be included and in addition, if the missing IE/IE group is not at message hierarchy level 1 (top level; see annex C) also the Message Structure IE shall be included.

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

If a message with IEs or IE groups in wrong order or with too many occurrences is received or if IEs or IE groups with a conditional presence are present when the condition is not met (i.e. erroneously present), 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 or erroneously present, 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. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication 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 or erroneously present, the receiving node shall terminate the procedure and 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 or erroneously present, the receiving node consider the procedure as unsuccessfully terminated and initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

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 information 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 procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

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

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the Error Indication procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

10.5 Exceptions

The error handling for all the cases described hereafter shall take precedence over any other error handling described in the other subclauses of clause 10.

- If any type of error (Transfer Syntax Error, Abstract Syntax Error or Logical Error) is detected in the ERROR INDICATION message, it shall not trigger the Error Indication procedure in the receiving Node but local error handling.
- In case a response message, failure message or ERROR INDICATION message needs to be returned, but the information necessary to determine the receiver of that message is missing, the procedure shall be considered as unsuccessfully terminated and local error handling shall be initiated.

Annex A (normative): Allocation and Pre-emption of Radio Links in the DRNS

A.1 Deriving Allocation Information for a Radio Link

A.1.1 Establishment of a New Radio Link

The Allocation Information for a Radio Link in the case of establishment of a new Radio Link shall be derived as follows:

- The latest received Allocation/Retention Priority IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in a) the procedure that establishes the first Radio Link for the UE in the DRNS or

b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels that are intended to use the Radio Link is set to "no priority", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels that are intended to use the Radio Link is not set to "no priority", the allocation priority and the pre-emption capability of the Radio Link shall be set according to the following:
 - The transport channels that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link.
 - The allocation priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all non excluded transport channels that are intended to use the Radio Link.
 - If all non-excluded transport channels that are intended to use a Radio Link to be established have the preemption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "shall not trigger pre-emption".

If one or more non-excluded transport channels that are intended to use the Radio Link to be established have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.1.2 Modification of an Existing Radio Link

The Allocation Information for a Radio Link in the case of modification of a Radio Link (addition or modification of transport channels using the Radio Link) shall be derived as follows:

- The latest received Allocation/Retention Priority IE for each transport channel shall be used.

Note: The Allocation/Retention Priority IE for a transport channel may have been received in

- a) the procedure that establishes the first Radio Link for the UE in the DRNS,
- b) a previous procedure adding or modifying the transport channel, or
- c) the current procedure adding or modifying the transport channel.
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all transport channels to be added or modified in the Radio Link is set to "no priority", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more of the transport channels to be added or modified in the Radio Link is not set to "no priority", the allocation priority of and the pre-emption capability of the Radio Link to be modified shall be set according to the following:
 - The transport channels to be added or modified that have the *Priority Level* IE in the *Allocation/Retention Priority* IE set to "no priority" shall be excluded when setting the allocation priority and pre-emption capability of a Radio Link to be modified.
 - The allocation priority for a Radio Link to be modified shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all the non-excluded transport channels that are to be added or modified.
 - If all non-excluded transport channels that are to be added or modified in the Radio Link have the preemption capability, given by the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE, set to "shall not trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "shall not trigger pre-emption".
 - If one or more of the non-excluded transport channels to be added or modified in the Radio Link have the value of the *Pre-emption Capability* IE in the *Allocation/Retention Priority* IE set to "may trigger pre-emption", the pre-emption capability of the Radio Link to be modified shall be set to "may trigger pre-emption".

The derived allocation priority and pre-emption capability are only valid during this allocation/retention process.

A.2 Deriving Retention Information for a Radio Link

The Retention Information for an existing Radio Link shall be derived as follows:

- The latest received Allocation/Retention Priority IE for each transport channel shall be used.

Note: The *Allocation/Retention Priority* IE for a transport channel may have been received in a) the procedure that establishes the first Radio Link for the UE in the DRNS or b) a procedure adding or modifying the transport channel.

- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for one or more transport channels using the Radio Link is set to "no priority", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".
- If the *Priority Level* IE in the *Allocation/Retention Priority* IE for all the transport channels using the Radio Link is not set to "no priority", the retention priority of the Radio Link and the pre-emption vulnerability of the Radio Link shall be set according to the following:
 - The retention priority for a Radio Link shall be set to highest priority level, given by the *Priority Level* IE in the *Allocation/Retention Priority* IE, for all transport channels that uses the Radio Link.
 - If all transport channels that uses the Radio Link have the pre-emption vulnerability, given by the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE, set to "pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "pre-emptable".
 If one or more transport channels that uses the Radio Link have the value of the *Pre-emption Vulnerability* IE in the *Allocation/Retention Priority* IE set to "not pre-emptable", the pre-emption vulnerability of the Radio Link shall be set to "not pre-emptable".

The derived retention priority and pre-emption vulnerability are valid until they are changed, or until the Radio Link is deleted. When new transport channels are added to or deleted from the Radio Link or when existing transport channels are modified with regards to the *Allocation/Retention Priority* IE, the retention information shall be derived again according to above.

A.3 The Allocation/Retention Process

The DRNS shall establish or modify the resources for a Radio Link according to:

- The value of the Allocation Information (allocation priority and pre-emption capability) of the Radio to be established or modified. The Allocation Information is derived according to clause A.1.
- The value of the Retention Information (retention priority and pre-emption vulnerability) of existing Radio Links. The Retention Information derived according to clause A.2.
- The resource situation in the DRNS.

Whilst the process and the extent of the pre-emption functionality is operator dependent, the pre-emption indicators (pre-emption capability and pre-emption vulnerability) shall be treated as follows:

- -. If the pre-emption capability for a Radio Link to be established or modified is set to "may trigger preemption" and the resource situation so requires, the DRNS may trigger the pre-emption process in clause A.4 to free resources for this allocation request.
- -. If the pre-emption capability for a Radio Link to be established or modified is set to "shall not trigger pre-emption", then this allocation request shall not trigger the pre-emption process in clause A.4.
- -. If the pre-emption vulnerability for an existing Radio Link is set to "pre-emptable", then this Radio Link shall be included in the pre-emption process in clause A.4.
- -. If the pre-emption vulnerability for an existing Radio Link is set to "not pre-emptable", then this Radio Link shall not be included in the pre-emption process in clause A.4.

A.4 The Pre-emption Process

The pre-emption process shall only pre-empt Radio Links with lower retention priority than the allocation priority of the Radio Link to be established or modified. The Radio Links to be pre-empted shall be selected in ascending order of the retention priority.

When the pre-emption process detects that one or more Radio Links have to be pre-empted to free resources for a Radio Link(s) to be established or modified, the DRNS shall initiate the Radio Link Pre-emption procedure for all the UE Contexts having Radio Links selected for pre-emption and start the T_{Preempt} timer.

When enough resources are freed to establish or modify the Radio Link(s) according to the request, the DRNS shall stop the $T_{Preempt}$ timer and complete the procedure that triggered the pre-emption process in accordance with the "Successful Operation" subclause of the procedure.

If the $T_{Preempt}$ timer expires, the DRNS shall regard the procedure that triggered the pre-emption process as failed and complete the procedure in accordance with the "Unsuccessful Operation" subclause of the procedure.

Annex B (informative): Measurement reporting

When the *Report Characteristics* IE is set to 'Event A' (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

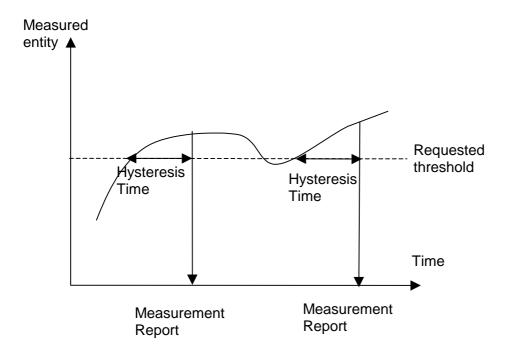


Figure B.1: Event A reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to 'Event B' (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.

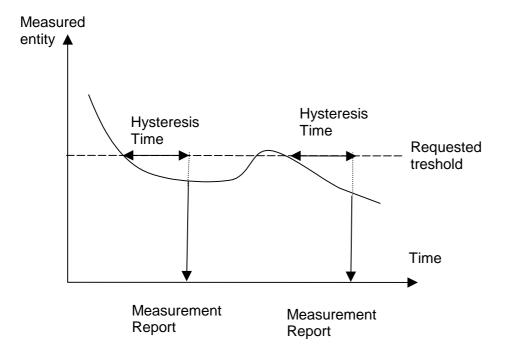


Figure B.2: Event B reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to 'Event C' (figure B.3), the Measurement Reporting procedure is initiated always when the measured entity rises by an amount greater than the requested threshold within the requested time. The reporting in figure B.3 is initiated if the Rising Time T1 is less than the requested time.

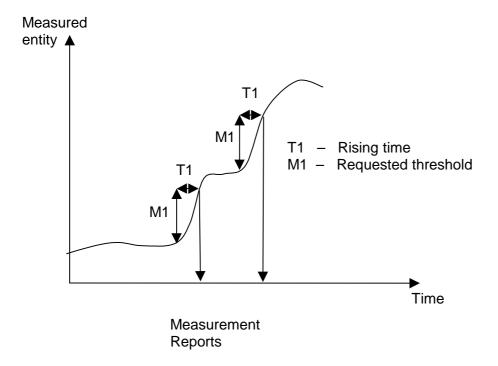


Figure B.3: Event C reporting

When the *Report Characteristics* IE is set to 'Event D' (figure B.4), the Measurement Reporting procedure is initiated always when the measured entity falls by an amount greater than the requested threshold within the requested time. The reporting in figure B.4 is initiated if the Falling Time T1 is less than the requested time.

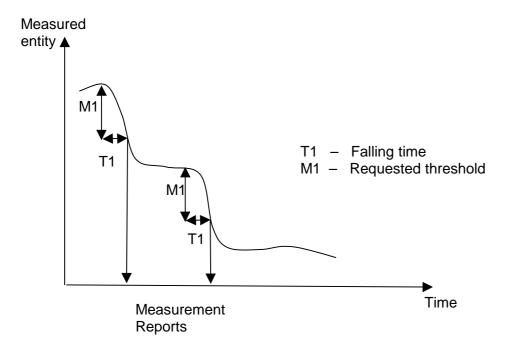


Figure B.4: Event D reporting

When the *Report Characteristics* IE is set to 'Event E' (figure B.5), the Measurement Reporting procedure (Report A) is initiated always when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (T1 in figure B.5). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity falls below the 'Measurement Threshold 1' and is terminated by the Report B.

When the Report A conditions have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (T1) the Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.

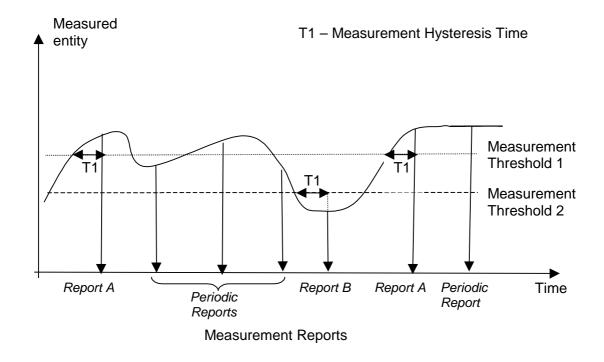
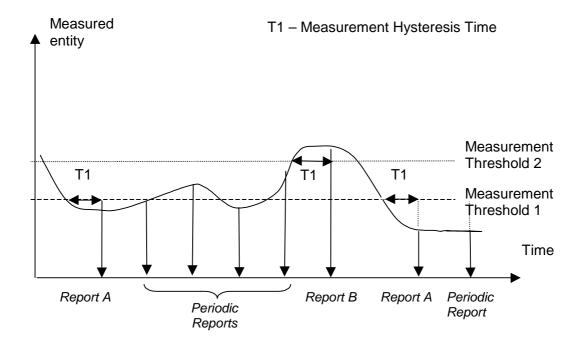


Figure B.5: Event E reporting with Hysteresis Time specified and Periodic Reporting requested

When the *Report Characteristics* IE is set to 'Event F' (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (T1 in figure B.6). If *Report Periodicity* IE is provided DRNS shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the 'Measurement Threshold 1' and is terminated by the Report B.

When the Report A conditions have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.



Measurement Reports

Figure B.6: Event F reporting with Hysteresis Time specified and Periodic Reporting requested

Annex C (informative): Guidelines for Usage of the Criticality Diagnostics IE

C.1 EXAMPLE MESSAGE Layout

Assume the following message format:

IE/Group Name	Presence	Range	IE type and	Semantics description	Criticality	Assigned Criticality
			referenc e			
Message Type	М				YES	reject
Transaction ID	M				_	
Α	M				YES	reject
В	M				YES	reject
>E		1 <maxe></maxe>			EACH	ignore
>>F		1 <maxf></maxf>			-	
>>>G		03,			EACH	ignore
>>H		1 <maxh></maxh>			EACH	ignore
>>>G		03,			EACH	ignore and
						notify
>>G	M				YES	reject
>>J		1 <maxj></maxj>			-	
>>>G		03,			EACH	reject
С	M				YES	reject
>K		1 <maxk></maxk>			EACH	ignore and notify
>>L		1 <maxl></maxl>			-	
>>>M	0				-	
D	M				YES	reject

Note 1. The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g. ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause C.4.

C.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.

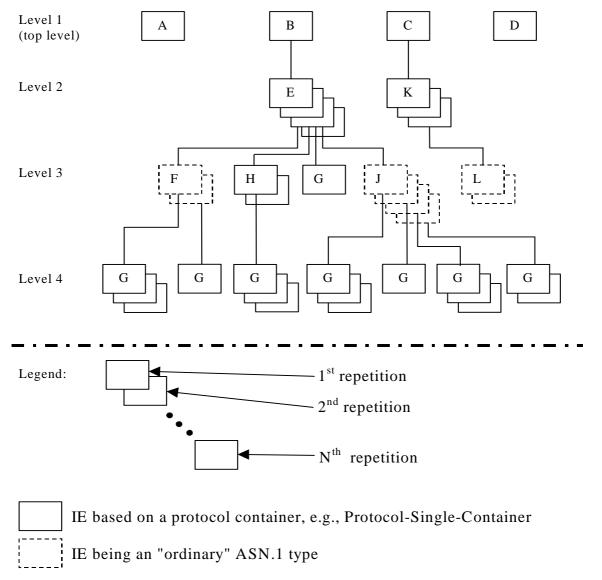
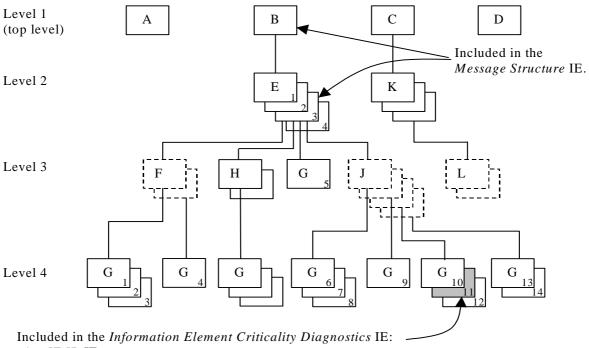


Figure C.1: Example of content of a received RNSAP message based on the EXAMPLE MESSAGE

C.3 Content of Criticality Diagnostics

C.3.1 Example 1



- a) IE ID IE
- b) Repetition Number IE

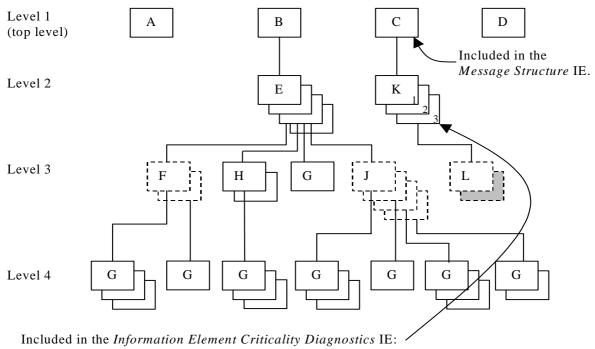
Figure C.2: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure C.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment					
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 4.					
IE ID	id-G	IE ID from the reported level, i.e. level 4.					
Repetition	11	Repetition number on the reported level, i.e. level 4.					
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE this is					
		the eleventh occurrence of IE G within the IE E (level 2).					
Type of Error	not						
	underst						
	ood						
Message Structur	e, first repe	etition					
>IE ID	id-B	IE ID from level 1.					
Message Structur	e, second	repetition					
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.					
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.					
Number							

- Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their own.
- Note 3. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.2 Example 2



- a) IE ID IE
- b) Repetition Number IE

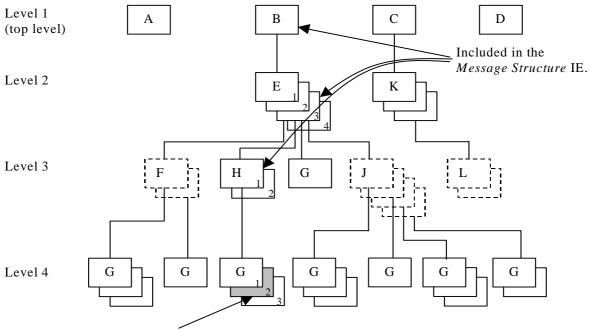
Figure C.3: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure C.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	ignore	Criticality for IE on the reported level, i.e. level 2.
	and	
	notify	
IE ID	id-K	IE ID from the reported level, i.e. level 2.
Repetition	3	Repetition number on the reported level, i.e. level 2.
Number		
Type of Error	not	
	underst	
	ood	
Message Structu	re, first repe	etition
>IE ID	id-C	IE ID from the lowest level above the reported level, i.e. level 1.

Note 4. The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.

C.3.3 Example 3



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

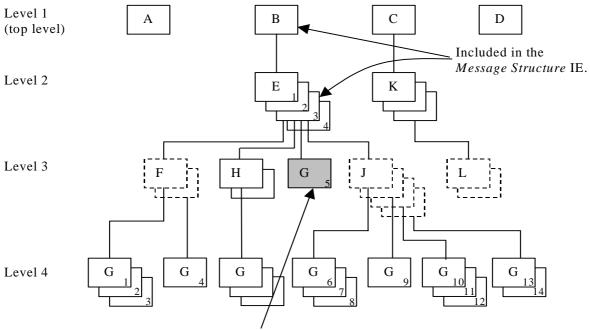
Figure C.4: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure C.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment						
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 4.						
IE ID	id-G	ID from the reported level, i.e. level 4.						
Repetition	2	Repetition number on the reported level, i.e. level 4.						
Number								
Type of Error	not							
	underst							
	ood							
Message Structur	e, first repe	etition						
>IE ID	id-B	IE ID from level 1.						
Message Structur	e, second	repetition						
>IE ID	id-E	IE ID from level 2.						
>Repetition	3	Repetition number from level 2.						
Number								
Message Structur	e, third rep	etition						
>IE ID	id-H	IE ID from the lowest level above the reported level, i.e. level 3.						
>Repetition	1	Repetition number from the lowest level above the reported level, i.e. level 3.						
Number								

Note 5. The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).

C.3.4 Example 4



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

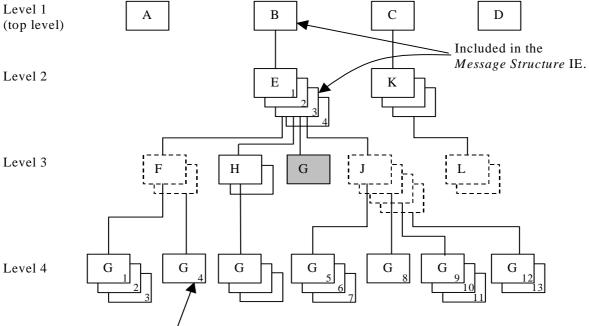
Figure C.5: Example of a received RNSAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure C.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment						
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.						
IE ID	id-G	ID from the reported level, i.e. level 3.						
Repetition	5	Repetition number on the reported level, i.e. level 3.						
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE this is						
		the fifth occurrence of IE G within the IE E (level 2).						
Type of Error	not							
	underst							
	ood							
Message Structur	e, first rep	etition						
>IE ID	id-B	IE ID from level 1.						
Message Structur	e, second	repetition						
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.						
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.						
Number								

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.3.5 Example 5



Included in the Information Element Criticality Diagnostics IE:

- a) IE ID IE
- b) Repetition Number IE

Figure C.6: Example of a received RNSAP message with a missing IE

If the instance marked as grey in the IE G in the IE E shown in the figure C.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment					
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.					
IE ID	id-G	IE ID from the reported level, i.e. level 3.					
Repetition Number	4	Repetition number up to the missing IE on the reported level, i.e. level 3. Since the IE E (level 2) is the lowest level included in the <i>Message Structure</i> IE there have been four occurrences of IE G within the IE E (level 2) up to the missing occurrence.					
Type of Error	missing						
Message Structur	e, first repe	etition					
>IE ID	id-B	IE ID from level 1.					
Message Structur	e, second	repetition					
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.					
>Repetition Number	3	Repetition number from the lowest level above the reported level, i.e. level 2.					

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

C.4 ASN.1 of EXAMPLE MESSAGE

```
ExampleMessage ::= SEQUENCE {
                                                     \{\{	exttt{ExampleMessage-IEs}\}\},
                        ProtocolIE-Container
    ProtocolIEs
    {\tt ProtocolExtensionS} \ \ {\tt ProtocolExtensionContainer} \ \ \{\{{\tt ExampleMessage-Extensions}\}\} \ \ \ {\tt OPTIONAL},
}
ExampleMessage-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-A CRITICALITY reject TYPE A PRESENCE mandatory} | { ID id-B CRITICALITY reject TYPE B PRESENCE mandatory} | { ID id-C CRITICALITY reject TYPE C PRESENCE mandatory} | { ID id-D CRITICALITY reject TYPE D PRESENCE mandatory} ,
}
B ::= SEQUENCE {
                      E-List,
    iE-Extensions ProtocolExtensionContainer { {B-ExtIEs} } OPTIONAL,
B-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
E-List ::= SEQUENCE (SIZE (1..maxE)) OF ProtocolIE-Single-Container { {E-IEs} }
E-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-E CRITICALITY ignore TYPE E PRESENCE mandatory }
E ::= SEQUENCE {
    h
                     H-List,
    g
                     G-List1,
                     J-List,
    iE-Extensions ProtocolExtensionContainer { {E-ExtIEs} } OPTIONAL,
}
E-Exties RNSAP-PROTOCOL-EXTENSION ::= {
F-List ::= SEQUENCE (SIZE (1..maxF)) OF F
F ::= SEQUENCE {
                      G-List2 OPTIONAL,
    iE-Extensions ProtocolExtensionContainer { {F-ExtIEs} } OPTIONAL,
F-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
\texttt{G-List2} ::= \texttt{SEQUENCE} \ (\texttt{SIZE} \ (1...3, \ \ldots)) \ \texttt{OF} \ \texttt{ProtocolIE-Single-Container} \ \left\{ \ \{\texttt{G2-IEs}\} \ \right\}
G2-IES RNSAP-PROTOCOL-IES ::= {
   H-List ::= SEQUENCE (SIZE (1..maxH)) OF ProtocolIE-Single-Container { {H-IEs} }
H-IES RNSAP-PROTOCOL-IES ::= {
    H ::= SEQUENCE {
                      G-List3 OPTIONAL,
                                        ProtocolExtensionContainer { {H-ExtIEs} } OPTIONAL,
    iE-Extensions
H-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
G-List3 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container \{ \{G3\text{-}IEs\} \}
G3-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-G CRITICALITY notify TYPE G PRESENCE mandatory }
G-List1 ::= ProtocolIE-Single-Container { {G1-IEs} }
G1-IES RNSAP-PROTOCOL-IES ::= {
   J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J
J ::= SEQUENCE {
                  G-List4 OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {J-ExtIEs} } OPTIONAL,
J-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
G-List4 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G4-IEs} }
G4-IES RNSAP-PROTOCOL-IES ::= {
   C ::= SEQUENCE {
                   K-List,
   \verb|ie-Extensions| & \verb|ProtocolExtensionContainer| & \verb|\{C-ExtIEs\}| & \verb|OPTIONAL|, \\
C-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { {K-IEs} }
K-IES RNSAP-PROTOCOL-IES ::= {
   { ID id-K CRITICALITY notify TYPE K PRESENCE mandatory }
K ::= SEQUENCE {
                   L-List,
   \begin{tabular}{ll} \hline iE-ExtensionS & ProtocolExtensionContainer $\{ \ \{K-ExtIEs\} \ \}$ & OPTIONAL, \\ \hline \end{tabular}
K-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
L-List ::= SEQUENCE (SIZE (1..maxL)) OF L
L ::= SEQUENCE {
                  M OPTIONAL,
   iE-Extensions ProtocolExtensionContainer { {L-ExtIEs} } OPTIONAL,
L-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
ExampleMessage-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
```

Annex D (normative): DRNS behaviour at SRNC or RNSAP Signalling Bearer failure

This annex describes the DRNC actions in the event of SRNC or RNSAP Signalling Bearer failure when all or some of the UE contexts related to the SRNC need to be removed in DRNC.

D.1 Detection of SRNC or RNSAP Signalling Bearer/Connection failure

Termination of all or some of the UE contexts in DRNC which are related to an SRNC may be triggered due to failure of SRNC, RNSAP Signalling Bearer or the Iur signalling connection of an UE(s).

D.1.1 Termination of all UE contexts related to a specific SRNC

Termination of all UE contexts in DRNC which are related to a specific SRNC is triggered if the RNSAP Signalling Bearer failure is detected by the RNSAP according to the procedure described in the sub-clause 4.5.1.5.1 of TS 25.420. By "all" UE contexts, it means all UEs having dedicated and/or common channel resources.

D.1.2 Termination of specific UE context

Termination of a specific UE context in DRNC is triggered for an UE which has dedicated transport channel resources according to the procedure described in the sub-clause 4.5.1.5.2 of TS 25.420.

D.2 DRNC actions at UE context termination

When termination of the UE context is required, the DRNC shall remove any common and/or dedicated radio resources related to the UE context. The DRNC shall also initiate release of the dedicated or common user plane resources that were involved in these UE contexts. In addition, if it is possible the DRNC shall release the RRC connection.

Annex E (informative): Change history

				Change I	history
TSG RAN#	Version	CR	Tdoc RAN	New Version	Subject/Comment
RAN_06	-	-	RP-99755	3.0.0	Approved at TSG RAN #6 and placed under Change Control
RAN_07	3.0.0	-	RP-000100	3.1.0	Approved at TSG RAN #7
RAN_07	3.0.0	-	RP-000143	3.1.0	Approved at TSG RAN #7
RAN_07	3.0.0	-	RP-000146	3.1.0	Approved at TSG RAN #7
RAN_08	3.1.0	-	RP-000241	3.2.0	Approved at TSG RAN #8
RAN_08 RAN_08	3.1.0 3.1.0	-	RP-000242 RP-000243	3.2.0 3.2.0	Approved at TSG RAN #8 Approved at TSG RAN #8
RAN_08	3.1.0	-	RP-000243	3.2.0	Approved at TSG RAN #8
RAN_09	3.2.0	145-	RP-000244	3.3.0	Approved at TSG RAN #9
IVAIN_09	5.2.0	149, 151- 154, 156- 164, 166	1000079	3.3.0	Approved at 150 IVAIV #5
RAN_09	3.2.0	168 169 171 173 174 176 178- 180 183- 193	RP-000380	3.3.0	Approved at TSG RAN #9
RAN_09	3.2.0	194- 200-	RP-000381	3.3.0	Approved at TSG RAN #9
RAN_10	3.3.0	202- 219, 221- 228, 230, 232- 239, 241, 243- 257, 259, 260, 263- 265, 268- 274- 278, 280, 281	RP-000618 RP-000619 RP-000621 RP-000696	3.4.0	Approved at TSG RAN #10
RAN_11	3.4.0	282- 286, 288- 293, 295- 302, 304- 308, 311, 313- 329, 332, 334- 335	RP-010117 RP-010118	3.5.0	Approved at TSG RAN #11

					Change history		
Date	TSG #	TSG Doc.	CR	Rev	Subject/Comment	Old	New
March 01	11		310		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
March 01	11	RP-010164			Assessed at TOO DAN WAA and also advanted Object on Octob		4.0.0
March 01	11	RP-010159	327, 328,		Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
			336,				
			337				
March 01	11	RP-010160			Approved at TSG RAN #11 and placed under Change Control	-	4.0.0
		1 0.0.00	323,		Provide at 100 to 11 to 11 and placed under change control		
			339				
06/2001	12	RP-010378	341,		Approved at TSG RAN#12	4.0.0	4.1.0
			343,				
			345,				
			347,				
			349, 351,				
			353,				
			355,				
			357,				
			359				
06/2001	12	RP-010379	361,		Approved at TSG RAN#12	4.0.0	4.1.0
			363,				
			365,				
			367,				
			369, 378,				
			380,				
			382,				
			388,				
			390				
06/2001	12	RP-010380	399,		Approved at TSG RAN#12	4.0.0	4.1.0
			403,				
			405,				
			407, 409,				
			411,				
			414				
06/2001	12	RP-010394	372,		Approved at TSG RAN#12	4.0.0	4.1.0
			373,				
			374,				
			375,				
			376,				
			379,				
			380, 391,				
			393,				
			412				
09/2001	13	RP-010583		2	Ambiguity in CM handling	4.1.0	4.2.0
09/2001	13	RP-010583	416	1	Corrections to the DSCH Code Mapping IE	4.1.0	4.2.0
09/2001	13	RP-010583	418		Transport bearer replacement clarification	4.1.0	4.2.0
09/2001	13				Correction to the Error handling of the ERROR INDICATION	4.1.0	4.2.0
00/	1	RP-010583		1	message	1	1
09/2001	13	RP-010583		2	Cell Reserved for operator use	4.1.0	4.2.0
09/2001	13	RP-010583		1	Clarification of Abnormal Conditions/Unsuccessful Operation	4.1.0	4.2.0
09/2001	13	RP-010583		1	TFCS Correction for TDD	4.1.0	4.2.0
09/2001	13	RP-010583		4	Correction of a wrong implementation of CR 414	4.1.0	4.2.0
09/2001 09/2001	13 13	RP-010583		1	Error handling of the Erroneously Present Conditional les	4.1.0	4.2.0
09/2001	13	RP-010583 RP-010584		-	Correction to Downlink Signaling Transfer Bitstrings ordering	4.1.0	4.2.0
09/2001	13	RP-010584			Mapping of TFCS to TFCI	4.1.0	4.2.0
09/2001	13	RP-010584			TDD Channelisation code range definition	4.1.0	4.2.0
09/2001	13	RP-010584		2	Clarification of coordinated DCHs	4.1.0	4.2.0
09/2001	13	RP-010584		1	Clarification on the Time Slot LCR	4.1.0	4.2.0
09/2001	13	RP-010584		1	Rnsap criticality	4.1.0	4.2.0
09/2001	13	RP-010584		1	Clarification of chapter 10	4.1.0	4.2.0
09/2001	13	RP-010584		1	Clarification of use of Diversity Control Indicator	4.1.0	4.2.0
09/2001	13	1			Clarification on the reference of the "Neighbouring TDD Cell	4.1.0	4.2.0
		RP-010596	415	L	Information LCR"		L
09/2001	13				Allowed Combinations of Dedicated Measurement Type and the	4.1.0	4.2.0
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History

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