

**TSG-RAN Meeting #10  
Bangkok, Thailand, 6 - 8 December 2000**

**TSGRP#10(00)0618**

**Title:** Agreed CRs to TS 25.423

**Source:** TSG-RAN WG3

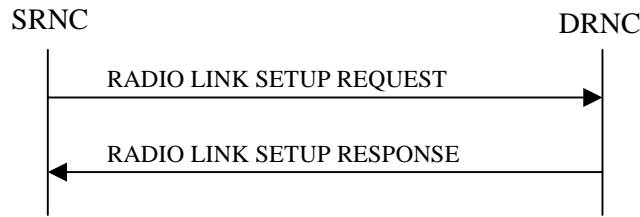
**Agenda item:** 5.3.3

Tdoc_Num	Specification	CR_Num	Revision_Nu	CR_Subject	CR_Categor	WG_Status	Cur_Ver_Nu	New_Ver_Nu
R3-002745	25.423	202	1	Clarification of the handling of UL UU In-and Out-of-sync	F	agreed	3.3.0	3.4.0
R3-002767	25.423	203	1	Correction of compressed mode handling in the physical	F	agreed	3.3.0	3.4.0
R3-002501	25.423	204		Clarification of Measurement Termination at Measurement	F	agreed	3.3.0	3.4.0
R3-002711	25.423	205	1	Handling of the optional IEs inside the Criticality	F	agreed	3.3.0	3.4.0
R3-003264	25.423	206	1	Removal of C-RNTI from the Common Transport Channel	F	agreed	3.3.0	3.4.0
R3-003013	25.423	207	2	Downlink Power control correction	F	agreed	3.3.0	3.4.0
R3-002519	25.423	209		Clarification of Measurement termination	F	agreed	3.3.0	3.4.0
R3-002527	25.423	210		Protocol specification principles	F	agreed	3.3.0	3.4.0
R3-002989	25.423	211	2	Transport channel modification	F	agreed	3.3.0	3.4.0
R3-002987	25.423	212	2	Explanation of cause values	F	agreed	3.3.0	3.4.0
R3-002536	25.423	213		Handling of optional IE's in RL SETUP and RL	F	agreed	3.3.0	3.4.0
R3-002990	25.423	214	4	CFN/SFN in measurement reporting	F	agreed	3.3.0	3.4.0

R3-003229	25.423	216	2	Correction to CM Configuration validity	F	agreed	3.3.0	3.4.0
R3-002731	25.423	217	1	Handling of invalid patterns in Compressed Mode	F	agreed	3.3.0	3.4.0
R3-003230	25.423	219	5	Support CN direct paging	F	agreed	3.3.0	3.4.0
R3-002580	25.423	221		Common Transport Channel Resources Initialisation	F	agreed	3.3.0	3.4.0
R3-002581	25.423	222		Inconsistency between Tabular and ASN.1 for TDD	F	agreed	3.3.0	3.4.0
R3-002870	25.423	223	2	Clarification on rules for using the tabular format	F	agreed	3.3.0	3.4.0
R3-003201	25.423	224	4	Corrections to Transport Format Set	F	agreed	3.3.0	3.4.0
R3-002765	25.423	226	1	Update of Physical Channel Reconfiguration procedure	F	agreed	3.3.0	3.4.0



### 8.3.1.2 Successful Operation



**Figure 1: 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 RRC connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request setup of the radio link(s).

The message includes the S-RNTI associated to the UE, and, if the UE context is already present in the DRNC, the corresponding D-RNTI.

[FDD - The *First RLS Indicator* IE indicates if the concerning RL shall be considered part of the first RLS established towards this UE. If the *First RLS indicator* IE is set to "first RLS", the DRNS shall use a TPC pattern of  $n \cdot "01" + "1"$  in the DL of the concerning RL and all RLs which are part of the same RLS, until UL synchronisation is achieved on the Uu. The TPC pattern shall continuously be repeated but shall be restarted at the beginning of every frame with  $CFN \bmod 4 = 0$ . For all other RLs, the DRNS shall use a TPC pattern of all "1"s in the DL until UL synchronisation is achieved on the Uu.]

[FDD - The *Diversity Control Field* IE indicates for each RL except 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 RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request before providing a response to the SRNC.

[FDD - If the *Initial DL TX Power* IE and *Uplink SIR Target* IE are present 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 constraints 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.]

[FDD - If the *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 *DL Timeslot ISCP* IE are present, the DRNC should use the indicated values when deciding the Initial DL TX Power.]

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

[FDD – The DRNS shall start the 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 for the concerning RLS or a DL POWER CONTROL REQUEST message is received. No innerloop 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) with  $DPC\_MODE=0$  and the power control procedure (see 8.3.7).]

[TDD – The DRNS shall start the DL transmission using the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code and on each Time Slot of a RL until UL synchronisation is achieved for the concerning 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). ]

If the RADIO LINK SETUP REQUEST message includes a *DCH Info* IE with multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCH Info* 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 *Allocation/Retention Priority* IE defines the priority level that should be used by the DRNS to prioritise the allocation and the retention of the resources used by the DCH. The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise the discard/delay of the data frames of the DCH and DSCH (if any).

The DRNS shall use the included *UL DCH FP Mode* IE for a DCH or a set of co-ordinated DCHs as the new 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 new 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 new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity* 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 *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the information about the Transmission Gap Pattern Sequences to be used when those are activated.]

[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 immediately activate the indicated Transmission Gap Pattern Sequences: for each sequence the *TGCFN* refers to latest passed CFN with that value. If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in ref. [26].]

[TDD – The DRNS shall use the *RB Identity* IE list inside the USCH information group to map each *RB Identity* IE to the corresponding USCH.]

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 setup.

[TDD –. If the DSCH Information is included in the RADIO LINK SETUP REQUEST message, the DRNC shall send a valid set of *Scheduling Priority* IE and *MAC-c/sh SDU lengths* IE parameters to the SRNC in the message RADIO LINK SETUP RESPONSE message].

[FDD - If the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not present in the RADIO LINK SETUP REQUEST message, then DRNC shall include the determined initial Uplink SIR Target in the RADIO LINK SETUP RESPONSE message.]

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

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the 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 - In the case of combining one or more RLs the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message with the Diversity Indication that the RL is combined with another 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 be included for all but one 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 [TDD – and USCH] of the RL.]

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

[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.]

The DRNS shall also provide the SRNC with the UTRAN Cell Identifier (UC-Id), the Frequency Number, the [FDD-Primary Scrambling Code], the [TDD-Cell Parameter ID, the Sync Case, the SCH Time Slot information, the Block STTD Indicator] of the neighbouring cells to the cell(s) where the radio link(s) are added. In addition, if the information is available, the DRNC shall also provide the [FDD-CPICH Power level]/[TDD-PCCPCH Power level, DPCH Constant Value] and Frame Offset of the neighbouring cell.

If a neighbouring cell is controlled by another RNC, the DRNC shall report also the node identifications (i.e. RNC and CN domain nodes) of the RNC controlling the neighbouring cell. [FDD – If the information is available, the DRNC shall include the *Tx Diversity Indicator* IE and Tx diversity capability (i.e. *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE, and *Closed Loop Mode2 Support Indicator* IE) in *Per FDD Cell Information* IE].

If there was no UE context for this UE in the DRNS before the RADIO LINK SETUP REQUEST message was received 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 *DRAC Control* IE is set to "requested" in the RADIO LINK SETUP REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message the *Secondary CCPCH Info* IE to be received on FACH, for each added Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK SETUP RESPONSE message.]

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell and the UTRAN access point position for each of the established RLs in the RADIO LINK SETUP RESPONSE message.

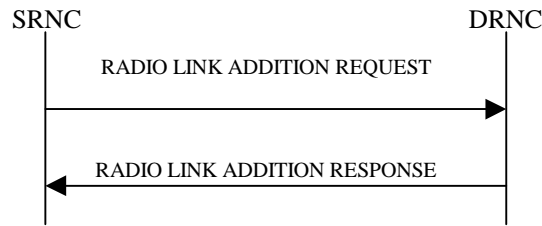
After sending of the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The DRNS shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [3].

[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 Indication* IE].

[FDD- If the *Downlink compressed mode method* in one or more Transmission Gap Pattern Sequence is set to 'SF/2' in the RADIO LINK SETUP REQUEST message, the DRNS shall include the *Transmission Gap Pattern Sequence Information Response* 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 –The UL out-of-sync algorithm defined in [10] 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].

### 8.3.2.2 Successful Operation



**Figure 2: 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 *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.

[FDD - If the *Primary CCPCH Ec/No* IE measured by the UE is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power. If the *Primary CCPCH Ec/No* IE is not present, the DRNS sets the Initial DL TX Power accordingly to the power used by the existing RLs.]

[TDD - If the *Primary CCPCH RSCP* IE and/or the *DL Timeslot ISCP* 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 *DL Timeslot ISCP* IE are not present, the DRNS sets the Initial DL TX Power accordingly to the power used by the existing RLs.]

[FDD - The Initial DL TX Power shall be applied until UL synchronisation is achieved for that RLS or a DL POWER CONTROL REQUEST message is received. No innerloop 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) with DPC\_MODE=0 and the power control procedure (see 8.3.7)].

[TDD – The Initial DL TX Power shall be applied until UL synchronisation is achieved 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 - The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

[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.]

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

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Active Pattern Sequence Information* IE, the DRNS shall use the information to immediately activate all ongoing Transmission Gap Pattern Sequence(s) also in the new RL. For each sequence the *TGCFN* refers to latest passed CFN with that value. If *Active Pattern Sequence Information* IE is not included, the DRNS shall not activate the on going CM pattern in the new RLs, but the on going pattern in the existing RL are maintained.]

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

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

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

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 that the RL is combined. In this case the Reference RL ID shall be included to indicate one of the existing RLs that the new RL is combined with.

In the case of not combining an RL with existing RL(s), the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message with the Diversity Indication 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, DSCH [TDD – and USCH] of the RL in the RADIO LINK ADDITION RESPONSE message.

In case of coordinated DCH, the *Binding ID* IE and the *Transport Layer Address* IE shall be included for only one of the co-ordinated DCHs.

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

[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.]

For any cell neighbouring of a cell in which a RL was added, the DRNC shall provide in the RADIO LINK ADDITION RESPONSE message the UTRAN Cell Identifier (UC-Id), the Frequency Number, the [FDD - Primary Scrambling Code], the [TDD – Cell Parameter Id, the Sync Case, the SCH Time slot information, the Block STTD Indicator] and the node identification of CN nodes connected to the RNC controlling the neighbouring cell if the neighbouring cell is not controlled by the DRNC. In addition, if the information is available, the DRNC shall also provide the [FDD- *Primary CPICH Power* IE]/[TDD - *PCCPCH Power* IE, *DPCH Constant Value* IE], *Frame Offset* IE, [FDD – *Tx Diversity Indicator* IE, and Tx diversity capability, i.e. *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE, and *Closed Loop Mode2 Support Indicator* IE] of the neighbouring cell.

The DRNC shall also provide the configured uplink 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 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.

[FDD - If some Transmission Gap Pattern sequences using SF/2 method are initialised in the DRNS, DRNS shall include the *Transmission Gap Pattern Sequence Information Response* IE in the RADIO LINK ADDITION RESPONSE message to indicate the Scrambling code change method that it selects for each channelisation code]

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell and the UTRAN access point position for each of the added RLs in the RADIO LINK SETUP RESPONSE message.

After sending of the RADIO LINK ADDITION RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The DRNS shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [4].

[FDD - If the UE has been allocated one or several DCH controlled by DRAC (*DRAC Control* IE was set to "requested" in the RADIO LINK ADDITION REQUEST message for at least one DCH) and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message the *Secondary CCPCH Info* IE to be received on FACH, for each added Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK ADDITION RESPONSE message.]

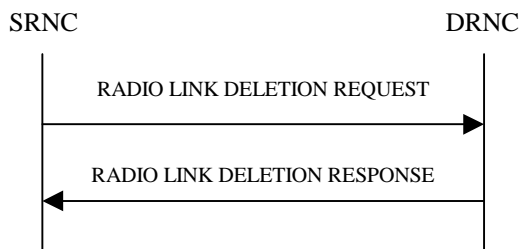
[FDD – When *Diversity Mode* IE is "STTD", "Closed loop mode1", or "Closed loop mode2", the DRNC shall activate/deactivate the Transmit Diversity to each Radio Link in accordance with *Transmit Diversity Indication* IE.].



[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 and the already known diversity mode.]

[FDD – After addition of the new RL(s), the UL out-of-sync algorithm defined in [10] 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 ~~DRNC~~-cells supporting the radio links of the RL Set].

## 8.3.3.2 Successful Operation

**Figure 3: 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.

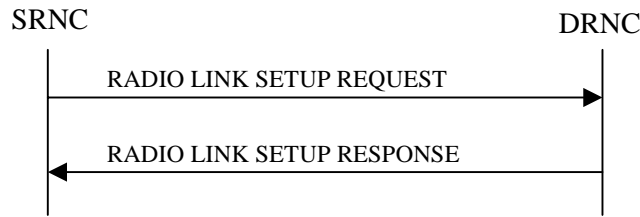
[FDD – After deletion of the RL(s), the UL out-of-sync algorithm defined in [10] shall for each of the remaining RL Set(s) use the maximum value of the parameters N\_OUTSYNC\_IND and T\_RLFAILURE, and the minimum value of the parameters N\_INSYNC\_IND, that are configured in the DRNC-cells supporting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



comments:



### 8.3.1.2 Successful Operation



**Figure 1: 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 RRC connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request setup of the radio link(s).

The message includes the S-RNTI associated to the UE, and, if the UE context is already present in the DRNC, the corresponding D-RNTI.

[FDD - The *First RLS Indicator* IE indicates if the concerning RL shall be considered part of the first RLS established towards this UE. If the *First RLS indicator* IE is set to "first RLS", the DRNS shall use a TPC pattern of  $n \cdot "01" + "1"$  in the DL of the concerning RL and all RLs which are part of the same RLS, until UL synchronisation is achieved on the Uu. The TPC pattern shall continuously be repeated but shall be restarted at the beginning of every frame with  $CFN \bmod 4 = 0$ . For all other RLs, the DRNS shall use a TPC pattern of all "1"s in the DL until UL synchronisation is achieved on the Uu.]

[FDD - The *Diversity Control Field* IE indicates for each RL except 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 RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request before providing a response to the SRNC.

[FDD - If the *Initial DL TX Power* IE and *Uplink SIR Target* IE are present 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 constraints 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.]

[FDD - If the *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 *DL Timeslot ISCP* IE are present, the DRNC should use the indicated values when deciding the Initial DL TX Power.]

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

[FDD – The DRNS shall start the 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 for the concerning RLS or a DL POWER CONTROL REQUEST message is received. No innerloop 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) with  $DPC\_MODE=0$  and the power control procedure (see 8.3.7).]

[TDD – The DRNS shall start the DL transmission using the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code and on each Time Slot of a RL until UL synchronisation is achieved for the concerning 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). ]

If the RADIO LINK SETUP REQUEST message includes a *DCH Info* IE with multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCH Info* 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 *Allocation/Retention Priority* IE defines the priority level that should be used by the DRNS to prioritise the allocation and the retention of the resources used by the DCH. The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise the discard/delay of the data frames of the DCH and DSCH (if any).

The DRNS shall use the included *UL DCH FP Mode* IE for a DCH or a set of co-ordinated DCHs as the new 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 new 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 new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity* 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 *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the information about the Transmission Gap Pattern Sequences to be used when those are activated.]

[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 immediately activate the indicated Transmission Gap Pattern Sequences: for each sequence the *TGCFN* refers to latest passed CFN with that value. If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in ref. [26].]

[TDD – The DRNS shall use the *RB Identity* IE list inside the USCH information group to map each *RB Identity* IE to the corresponding USCH.]

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 setup.

[TDD –. If the DSCH Information is included in the RADIO LINK SETUP REQUEST message, the DRNC shall send a valid set of *Scheduling Priority* IE and *MAC-c/sh SDU lengths* IE parameters to the SRNC in the message RADIO LINK SETUP RESPONSE message].

[FDD - If the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not present in the RADIO LINK SETUP REQUEST message, then DRNC shall include the determined initial Uplink SIR Target in the RADIO LINK SETUP RESPONSE message.]

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

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the 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 - In the case of combining one or more RLs the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message with the Diversity Indication that the RL is combined with another 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 be included for all but one 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 [TDD – and USCH] of the RL.]

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

[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.]

The DRNS shall also provide the SRNC with the UTRAN Cell Identifier (UC-Id), the Frequency Number, the [FDD-Primary Scrambling Code], the [TDD-Cell Parameter ID, the Sync Case, the SCH Time Slot information, the Block STTD Indicator] of the neighbouring cells to the cell(s) where the radio link(s) are added. In addition, if the information is available, the DRNC shall also provide the [FDD-CPICH Power level]/[TDD-PCCPCH Power level, DPCH Constant Value] and Frame Offset of the neighbouring cell.

If a neighbouring cell is controlled by another RNC, the DRNC shall report also the node identifications (i.e. RNC and CN domain nodes) of the RNC controlling the neighbouring cell. [FDD – If the information is available, the DRNC shall include the *Tx Diversity Indicator* IE and Tx diversity capability (i.e. *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE, and *Closed Loop Mode2 Support Indicator* IE) in *Per FDD Cell Information* IE].

If there was no UE context for this UE in the DRNS before the RADIO LINK SETUP REQUEST message was received 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 *DRAC Control* IE is set to "requested" in the RADIO LINK SETUP REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message the *Secondary CCPCH Info* IE to be received on FACH, for each added Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK SETUP RESPONSE message.]

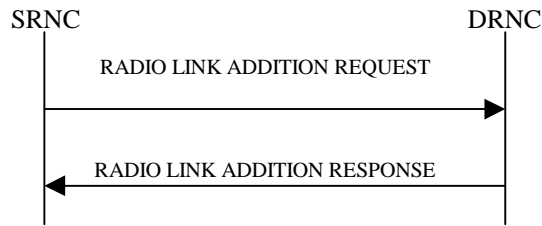
Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell and the UTRAN access point position for each of the established RLs in the RADIO LINK SETUP RESPONSE message.

After sending of the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The DRNS shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [3].

[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 Indication* IE].

[FDD- If the *Downlink compressed mode method* in one or more Transmission Gap Pattern Sequence is set to 'SF/2' in the RADIO LINK SETUP REQUEST message, the DRNS shall include the *Transmission Gap Pattern Sequence Scrambling Code Information Response* IE in the RADIO LINK SETUP RESPONSE message indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

### 8.3.2.2 Successful Operation



**Figure 2: 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 *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.

[FDD - If the *Primary CCPCH Ec/No* IE measured by the UE is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power. If the *Primary CCPCH Ec/No* IE is not present, the DRNS sets the Initial DL TX Power accordingly to the power used by the existing RLs.]

[TDD - If the *Primary CCPCH RSCP* IE and/or the *DL Timeslot ISCP* 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 *DL Timeslot ISCP* IE are not present, the DRNS sets the Initial DL TX Power accordingly to the power used by the existing RLs.]

[FDD - The Initial DL TX Power shall be applied until UL synchronisation is achieved for that RLS or a DL POWER CONTROL REQUEST message is received. No innerloop 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) with DPC\_MODE=0 and the power control procedure (see 8.3.7)].

[TDD – The Initial DL TX Power shall be applied until UL synchronisation is achieved 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 - The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

[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.]

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

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Active Pattern Sequence Information* IE, the DRNS shall use the information to immediately activate all ongoing Transmission Gap Pattern Sequence(s) also in the new RL. For each sequence the *TGCFN* refers to latest passed CFN with that value. If *Active Pattern Sequence Information* IE is not included, the DRNS shall not activate the on going CM pattern in the new RLs, but the on going pattern in the existing RL are maintained.]

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

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



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

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 that the RL is combined. In this case the Reference RL ID shall be included to indicate one of the existing RLs that the new RL is combined with.

In the case of not combining an RL with existing RL(s), the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message with the Diversity Indication 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, DSCH [TDD – and USCH] of the RL in the RADIO LINK ADDITION RESPONSE message.

In case of coordinated DCH, the *Binding ID* IE and the *Transport Layer Address* IE shall be included for only one of the co-ordinated DCHs.

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

[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.]

For any cell neighbouring of a cell in which a RL was added, the DRNC shall provide in the RADIO LINK ADDITION RESPONSE message the UTRAN Cell Identifier (UC-Id), the Frequency Number, the [FDD - Primary Scrambling Code], the [TDD – Cell Parameter Id, the Sync Case, the SCH Time slot information, the Block STTD Indicator] and the node identification of CN nodes connected to the RNC controlling the neighbouring cell if the neighbouring cell is not controlled by the DRNC. In addition, if the information is available, the DRNC shall also provide the [FDD- *Primary CPICH Power* IE]/[TDD - *PCCPCH Power* IE, *DPCH Constant Value* IE], *Frame Offset* IE, [FDD – *Tx Diversity Indicator* IE, and Tx diversity capability, i.e. *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE, and *Closed Loop Mode2 Support Indicator* IE] of the neighbouring cell.

The DRNC shall also provide the configured uplink 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 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.

[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 Response* IE in the RADIO LINK ADDITION RESPONSE message to indicate the Scrambling code change method that it selects for each channelisation code]

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell and the UTRAN access point position for each of the added RLs in the RADIO LINK SETUP RESPONSE message.

After sending of the RADIO LINK ADDITION RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The DRNS shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [4].

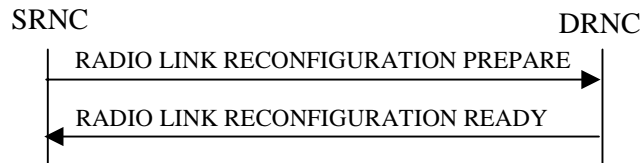
[FDD - If the UE has been allocated one or several DCH controlled by DRAC (*DRAC Control* IE was set to "requested" in the RADIO LINK ADDITION REQUEST message for at least one DCH) and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message the *Secondary CCPCH Info* IE to be received on FACH, for each added Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK ADDITION RESPONSE message.]

[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 Indication* IE.].

[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 and the already known diversity mode.]

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

### 8.3.4.2 Successful Operation



**Figure 3: 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 before providing a response to the SRNC.

#### **DCH Modification:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Allocation/Retention Priority* IE for a DCH to be modified, the DRNS should use this information when reserving resources for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message 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 RADIO LINK RECONFIGURATION PREPARE message 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 RADIO LINK RECONFIGURATION PREPARE message 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.

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs to Modify* IE with 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 RADIO LINK RECONFIGURATION PREPARE message includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the 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 RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWS* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the 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 RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWE* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE 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 present and set to "requested" in the RADIO LINK RECONFIGURATION PREPARE message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]

#### **DCH Addition:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be added to the Radio Link(s), 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 RADIO LINK RECONFIGURATION PREPARE message 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].]

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 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 the RADIO LINK RECONFIGURATION PREPARE message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]

#### **DCH Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be deleted from the Radio Link(s), the DRNS shall not include this DCH 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 the *Uplink Scrambling Code* IE, the DRNS shall apply this Uplink Scrambling Code to the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *Uplink Channelisation Code* IEs, the DRNS shall apply the new Uplink Channelisation Code(s) in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *Number of DL Channelisation Code 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, DRNS shall include the *Transmission Gap Pattern Sequence Scrambling Code Information Response-IE* in the RADIO LINK RECONFIGURATION READY message in case it 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 *p*th to “*PhCH number p*”.]

[FDD - 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 - 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 RADIO LINK RECONFIGURATION PREPARE message includes on the *Diversity Mode* IE, the DRNS shall apply diversity according to the given value.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes on the *UL DPCCCH Structure* IE, group the DRNS shall apply the new Uplink DPCCCH Structure to the new configuration.]

FDD – If the RADIO LINK RECONFIGURATION PREPARE message 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 RADIO LINK RECONFIGURATION PREPARE message 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] section 5.2.1 for the inner loop DL power control in the new configuration.]

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

#### [TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes UL/DL CCTrCH to be modified and includes any of *TFCS* IE, *TFCI coding* IE, *Puncture limit* IE, or *TPC CCTrCH ID* IEs the DRNC 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 *Midamble shift and Burst Type* IE, *Time Slot* IE, *TFCI presence* IE or Code information was modified. The DRNC shall include code information if *TDD Channelisation Code* IE was modified.]

#### [TDD – UL/DL CCTrCH Addition]

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

[TDD – If the DRNC 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.]

#### [TDD – UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any UL or DL CCTrCH to be deleted, the DRNC shall remove this CCTrCH in the new configuration.]

#### SSDT Activation/Deactivation:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SSDT Indication* IE set to "SSDT Active in the UE", the DRNS shall activate SSDT, if supported, using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SSDT Indication* IE set to "SSDT not Active in the UE", the DRNS shall deactivate SSDT in the new configuration.]

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.

In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur the *DCH Information Response IE* group 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 *DCH Information Response IE* group shall be included only for one of the combined Radio Links.

#### **Compressed Mode Preparation:**

[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.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information IE* and 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 DRNS shall include the *Transmission Gap Pattern Sequence Scrambling Code Information Response-IE* to the RADIO LINK RECONFIGURATION READY message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not].

#### **DSCH Addition/Modification/Deletion:**

The DRNC shall use any included DSCH information for the DSCHs to be added/modified/deleted in the RADIO LINK RECONFIGURATION PREPARE message, 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.

To add or modify each DSCH, 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 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.

The DRNS shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address IE* and the *Binding ID IE* of the DSCHs being added or modified.

#### **USCH Addition/Modification/Deletion [TDD]**

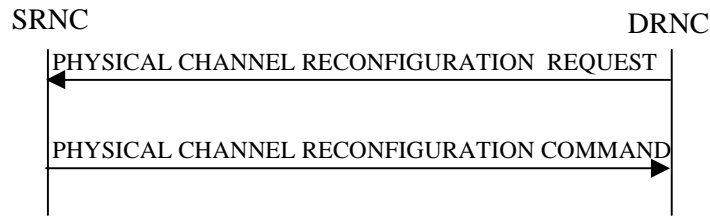
The DRNC shall use any included USCH information for the USCHs to be added/modified/deleted in the RADIO LINK RECONFIGURATION PREPARE message, to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.

To add or modify each USCH, 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 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.

The DRNS shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address IE* and the *Binding ID IE* of the USCHs being added or modified.

### 8.3.8.2 Successful Operation



**Figure 4: 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.]

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.

## 9.1.4.1 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		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
<b>RL Information Response</b>		1..<maxno ofRLs>			EACH	ignore
>RL ID	M		9.2.1.49		–	
>RL Set ID	M		9.2.2.35		–	
>URA ID	M		9.2.1.70		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O				–	
>UTRAN Access Point Position	O				–	
>RSSI	M		9.2.2.35A		–	
<b>&gt;Secondary CCPCH Info</b>		0..1			–	
>>FDD S-CCPCH Offset	M		9.2.2.15	Corresponds to: $T_{S-CCPCH,k}$ , see ref. [8]	–	
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>TFCS	M		9.2.1.63	For the DL.	–	
>>Secondary CCPCH Slot Format	M		9.2.2.38		–	
>>TFCI presence	C - SlotFormat		9.2.1.55		–	
>>Multiplexing Position	M		9.2.2.26		–	
>>STTD Indicator	M		9.2.2.44		–	
<b>&gt;&gt;FACH/PCH Information</b>		1 .. <maxFACHcount+1>			–	
>>>TFS			9.2.1.64	For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
<b>&gt;&gt;Scheduling Information</b>		1			–	
>>>IB_SG_REP	M		9.2.2.4		–	
<b>&gt;&gt;&gt;Segment Information</b>		1.. <maxIBSEG>			–	
>>>>IB_SG_POS	M		9.2.2.20		–	
<b>&gt;DL Code Information</b>		1.. <maxnoofDLCodes>			–	
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>Transmission Gap Pattern Sequence Scrambling Code Information Response	O				–	
>Diversity Indication	C-NotFirstRL		9.2.2.7		–	



IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>CHOICE <i>diversity Indication</i>						
>>Combining					YES	ignore
>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	–	
>>Non Combining or First RL					YES	ignore
>>>DCH Information Response		0..<maxno ofDCHs>		Only one DCH per set of co-ordinated DCHs shall be included	–	
>>>>DCH ID	M		9.2.1.16		–	
>>>>Binding ID	M		9.2.1.3		–	
>>>>Transport Layer Address	M		9.2.1.62		–	
>SSDT Support Indicator	M		9.2.2.43		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Closed loop timing adjustment mode	O				-	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.2.10		–	
>Minimum DL TX Power	M		DL Power 9.2.2.10		–	
>DSCH Information Response		0..1			YES	ignore
>>DSCH Information		1..<Maxno ofDSCHs>			–	
>>>DSCH ID	M				–	
>>>>Priority Indicator		1..16		Provide Information for each priority class used	–	
>>>>Scheduling Priority Indicator	M			For DSCH	–	
>>>>MAC-c/sh SDU Length		1..<MaxNb MAC-c/shSDUL ength>			–	
>>>>>MAC-c/sh SDU Length	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>>PDSCH code mapping	M			PDSCH code mapping to be used	–	
>Neighbouring Cell Information		0..<maxnoof neighbourin gRNCs>			EACH	ignore
>>RNC-Id	M		9.2.1.50		–	
>>CN PS Domain Identifier	O		9.2.1.12		–	
>>CN CS Domain Identifier	O		9.2.1.11		–	
>>Per FDD Cell Information		0..<maxno ofFDDneig				

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
		<i>hbours&gt;</i>				
>>>C-Id	M		9.2.1.6			
>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	–	
>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]		
>>>Frame Offset	O		9.2.1.30		–	
>>>Primary Scrambling Code	M		9.2.1.45		–	
>>>Primary CPICH Power	O		9.2.1.44		–	
>>>Cell Individual Offset	O		9.2.1.7			
>>>Tx Diversity Indicator	M		9.2.2.50			
>>>STTD Support Indicator	O		9.2.2.45			
>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2			
>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3			
<b>&gt;&gt;Per TDD Cell Information</b>		<i>0..&lt;maxno ofTDDneig hbours&gt;</i>				
>>>C-Id	M		9.2.1.6			
>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	–	
>>>Frame Offset	O		9.2.1.30		–	
>>>Cell Parameter ID	M		9.2.1.8		–	
>>>Sync Case	M		9.2.1.54		–	
>>>Time Slot	C-Case1		9.2.1.56		–	
>>>SCH Time Slot	C-Case2		9.2.1.51		–	
>>>Block STTD Indicator	M				–	
>>>Cell Individual Offset	O		9.2.1.7		–	
>>>DPCH Constant Value	O		9.2.1.23		–	
>>>PCCPCH Power	O		9.2.1.43		–	
Uplink SIR Target	O		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
NotFirstRL	The IE is present only if the RL is not the first RL in the RL Information
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell.
MaxnoofTDDneighbours	Maximum number of neighbouring TDD cell for one cell.
MaxFACHCount	Maximum number of FACH's mapped onto secondary CCPCH's
MaxIBSEG	Maximum number of segments for one Information Block

## 9.1.5.1 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		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
CHOICE <i>cause level</i>						
> <i>General</i>					Yes	ignore
>>Cause	M					
> <i>RL specific</i>					Yes	ignore
>> <b>Unsuccessful RL Information Response</b>		1...<max number of RLS>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
>> <b>Successful RL Information Response</b>		0..<max number of RLS-1>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>RL Set ID	M		9.2.2.35		–	
>>>URA ID	M		9.2.1.70		–	
>>>SAI	M		9.2.1.52		–	
>>>RSSI	M		9.2.2.35A		–	
>>> <b>DL Code Information</b>		1..<max number of DL Codes>			GLOBAL	ignore
>>>>DL Scrambling Code	M		9.2.2.8		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>Transmission Gap Pattern Sequence Scrambling Code Information Response	O		9.2.2.47B		–	
>>>Diversity Indication	M		9.2.2.7		–	
>>>CHOICE <i>diversity Indication</i>					–	
>>>> <i>Combining</i>					YES	ignore
>>>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	–	
>>>>> <i>Non Combining First RL</i>					YES	ignore
>>>>> <b>DCH Information Response</b>		0..<max number of DCHs>		Only one DCH per set of co-ordinated DCHs shall be included.	–	
>>>>>>DCH ID	M		9.2.1.16		–	
>>>>>>Binding ID	M		9.2.1.3		–	
>>>>>>Transport Layer Address	M		9.2.1.62		–	
>>>SSDT Support Indicator	M		9.2.2.43		–	
>>>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Closed loop timing adjustment mode	O				-	
>>>Maximum Allowed UL Tx Power	M		9.2.1.35		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>Maximum DL TX Power	M		DL Power 9.2.2.10		–	
>>>Minimum DL TX Power	M		DL Power 9.2.2.10		–	
>>> <b>DSCH Information Response</b>		<i>0..&lt;maxno of DSCHs&gt;</i>			GLOBAL	ignore
>>>>DSCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>>> <b>Neighbouring Cell Information</b>	O	<i>0..&lt;maxno of neighbourin gRNCs&gt;</i>			EACH	ignore
>>>>RNC-Id	M		9.2.1.50		–	
>>>>CN PS Domain Identifier	O		9.2.1.12		–	
>>>>CN CS Domain Identifier	O		9.2.1.11		–	
>>>> <b>Per FDD Cell Information</b>		<i>0..&lt;maxno of FDDneig hbours&gt;</i>			–	
>>>>>C-Id	M		9.2.1.6		–	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	–	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]	–	
>>>>>Frame Offset	O		9.2.1.30		–	
>>>>>Primary Scrambling Code	M		9.2.1.45		–	
>>>>>Primary CPICH Power	O		9.2.1.44		–	
>>>>>Cell Individual Offset	O		9.2.1.7		–	
>>>>>Tx Diversity Indicator	M		9.2.2.50		–	
>>>>>STTD Support Indicator	O		9.2.2.45		–	
>>>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2		–	
>>>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3		–	
>>>> <b>Per TDD Cell Information</b>		<i>0..&lt;maxno of TDDneig hbours&gt;</i>			–	
>>>>>C-Id	M		9.2.1.6		–	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	–	
>>>>>Frame Offset	O		9.2.1.30		–	
>>>>>Cell Parameter ID	M		9.2.1.8		–	
>>>>>Sync Case	M		9.2.1.54		–	
>>>>>Time Slot	C-Case1		9.2.1.56		–	
>>>>>SCH Time Slot	C-Case2		9.2.1.51		–	
>>>>>Block STTD Indicator	M				–	
>>>>>Cell Individual Offset	O		9.2.1.7		–	
>>>>>DPCH Constant Value	O		9.2.1.23		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>>>PCCPCH Power	O		9.2.1.43		-	
Uplink SIR Target	O		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell
MaxnoofTDDneighbours	Maximum number of neighbouring TDD cell for one cell

## 9.1.7.1 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		–	
<b>RL Information Response</b>		1..<maxnoof RLS-1>			EACH	ignore
>RL ID	M		9.2.1.49		–	
>RL Set ID	M		9.2.2.35		–	
>URA ID	M		9.2.1.70		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O				–	
>UTRAN Access Point Position	O				–	
>RSSI	M		9.2.2.35A		–	
>> <b>Secondary CCPCH Info</b>		0..1			–	
>>>FDD S-CCPCH Offset	M		9.2.2.15	Corresponds to: $\tau_{S-CCPCH,k}$ , see ref. [8]	–	
>>>DL Scrambling Code	M		9.2.2.8		–	
>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>TFCS	M		9.2.1.63	For the DL.	–	
>>>Secondary CCPCH Slot Format	M		9.2.2.38		–	
>>>TFCl presence	C - SlotFormat		9.2.1.55		–	
>>>Multiplexing Position	M		9.2.2.26		–	
>>>STTD Indicator	M		9.2.2.44		–	
>>> <b>FACH/PCH Information</b>		1 .. <maxFACHcount+1>			–	
>>>>TFS			9.2.1.64	For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
>>>> <b>Scheduling Information</b>		1			–	
>>>>>IB_SG_EP	M		9.2.2.21		–	
>>>>> <b>Segment Information</b>		1.. <maxIBSEG>			–	
>>>>>>IB_SG_POS	M		9.2.2.20		–	
>>>> <b>DL Code Information</b>		1..<maxnoof DLCodes>			GLOBAL	ignore
>>>>DL Scrambling Code	M		9.2.2.8		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>Transmission Gap Pattern Sequence Scrambling Code Information Response	O				–	
>>>>>Diversity Indication	M		9.2.2.7		YES	ignore
>>>>>>CHOICE diversity indication						
>>>>>>>Combining					YES	ignore
>>>>>>>>RL ID	M		9.2.1.49	Reference	–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
				RL-Id		
>>Non combining					YES	ignore
>>>DCH Information Response		1..<maxnoof DCHs>		Only one DCH per set of co-ordinated DCHs shall be included.	-	
>>>>DCH ID	M		9.2.1.16		-	
>>>>Binding ID	M		9.2.1.3		-	
>>>>Transport Layer Address	M		9.2.1.62		-	
>SSDT Support Indicator	M		9.2.2.43		-	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		-	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		-	
>Closed loop timing adjustment mode	O				-	
>Maximum Allowed UL Tx Power	M		9.2.1.35		-	
>Maximum DL TX Power	M		DL Power 9.2.2.10		-	
>Minimum DL TX Power	M		DL Power 9.2.2.10		-	
>Neighbouring Cell Information		0..<maxnoofn eighbouringR NCs>			EACH	ignore
>>RNC-Id	M		9.2.1.50		-	
>>CN PS Domain Identifier	O		9.2.1.12		-	
>>CN CS Domain Identifier	O		9.2.1.11		-	
>>Per FDD Cell Information		0..<maxnoof FDDneighbo urs>			-	
>>>C-Id	M		9.2.1.6		-	
>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	-	
>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]	-	
>>>Frame Offset	O		9.2.1.30		-	
>>>Primary Scrambling Code	M		9.2.1.45		-	
>>>Primary CPICH Power	O		9.2.1.44		-	
>>>Cell Individual Offset	O		9.2.1.7		-	
>>>Tx Diversity Indicator	M		9.2.2.50		-	
>>>STTD Support Indicator	O		9.2.2.45		-	
>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2		-	
>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3		-	
>>Per TDD Cell Information		0..<maxnoof TDDneighbo urs>			-	
>>>C-Id	M		9.2.1.6		-	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	–	
>>>Frame Offset	O		9.2.1.30		–	
>>>Cell Parameter ID	M		9.2.1.8		–	
>>>Sync Case	M		9.2.1.54		–	
>>>Time Slot	C-Case1		9.2.1.56		–	
>>>SCH Time Slot	C-Case2		9.2.1.51		–	
>>>Block STTD Indicator	M				–	
>>>Cell Individual Offset	O		9.2.1.7		–	
>>>DPCH Constant Value	O		9.2.1.23		–	
>>>PCCPCH Power	O		9.2.1.43		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

Range bound	Explanation
MaxnoofDCHs	Maximum number of dedicated channels on one RL
MaxnoofRLs	Maximum number of radio links for one UE
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDNeighbours	Maximum number of neighbouring FDD cells for one cell
MaxnoofTDDNeighbours	Maximum number of neighbouring TDD cells for one cell
MaxnoofDLCodes	Maximum number of DL code information
MaxFACHCount	Maximum number of FACH's mapped onto secondary CCPCH's
MaxIBSEG	Maximum number of segments for one Information Block



## 9.1.8.1 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		–	
CHOICE <i>cause level</i>						
>General					Yes	ignore
>>Cause	M					
>RL specific					Yes	ignore
>>Unsuccessful RL Information Response		1..<maxnoof RLS-1>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
>>>Successful RL Information Response		0..<maxnoof RLS-2>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>RL Set ID	M		9.2.2.35		–	
>>>URA ID	M		9.2.1.70		–	
>>>SAI	M		9.2.1.52		–	
>>>RSSI	M		9.2.2.35A		–	
>>>DL Code Information		1..<maxnoof DL Codes>			GLOBAL	ignore
>>>>DL Scrambling Code	M		9.2.2.8		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>Transmission Gap Pattern Sequence <a href="#">Scrambling Code Information Response</a>	O		9.2.2.47B		–	
>>>Diversity Indication	M		9.2.2.7		YES	ignore
>>>CHOICE <i>diversity indication</i>						
>>>>Combining					YES	ignore
>>>>>RL ID	M		9.2.1.49	Reference RL-Id	–	
>>>>>Non combining					YES	ignore
>>>>>DCH Information Response		1..<maxnoof DCHs>		Only one DCH per set of co-ordinated DCHs shall be included.	–	
>>>>>>DCH ID	M		9.2.1.16		–	
>>>>>>Binding ID	M		9.2.1.3		–	
>>>>>>Transport Layer Address	M		9.2.1.62		–	
>>>SSDT Support Indicator	M		9.2.2.43		–	
>>>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Closed loop timing adjustment mode	O				–	
>>>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>>>Maximum DL TX Power	M		DL Power 9.2.2.10		–	
>>>Minimum DL TX Power	M		DL Power 9.2.2.10		–	
>>>Neighbouring Cell		0..<maxnoofn			EACH	ignore

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
<b>Information</b>		<i>neighbouringRNCs</i>				
>>>>RNC-Id	M		9.2.1.50		–	
>>>>CN PS Domain Identifier	O		9.2.1.12		–	
>>>>CN CS Domain Identifier	O		9.2.1.11		–	
<b>&gt;&gt;&gt;&gt;Per FDD Cell Information</b>		<i>0..&lt;maxnoofFDDneighbours&gt;</i>				
>>>>>C-Id	M		9.2.1.6			
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	–	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]		
>>>>>Frame Offset	O		9.2.1.30		–	
>>>>>Primary Scrambling Code	M		9.2.1.45		–	
>>>>>Primary CPICH Power	O		9.2.1.44		–	
>>>>>Cell Individual Offset	O		9.2.1.7			
>>>>>Tx Diversity Indicator	M		9.2.2.50			
>>>>>STTD Support Indicator	O		9.2.2.45			
>>>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2			
>>>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3			
<b>&gt;&gt;&gt;&gt;Per TDD Cell Information</b>		<i>0..&lt;maxnoofTDDneighbours&gt;</i>				
>>>>>C-Id	M		9.2.1.6			
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	–	
>>>>>Frame Offset	O		9.2.1.30		–	
>>>>>Cell Parameter ID	M		9.2.1.8		–	
>>>>>Sync Case	M		9.2.1.54		–	
>>>>>Time Slot	C-Case1		9.2.1.56		–	
>>>>>SCH Time Slot	C-Case2		9.2.1.51		–	
>>>>>Block STTD Indicator	M				–	
>>>>>Cell Individual Offset	O		9.2.1.7		–	
>>>>>DPCH Constant Value	O		9.2.1.23		–	
>>>>>PCCPCH Power	O		9.2.1.43		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.

<b>Range bound</b>	<b>Explanation</b>
MaxnoofDCHs	Maximum number of dedicated channels on one RL
MaxnoofRLs	Maximum number of radio links for one UE
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDNeighbours	Maximum number of neighbouring FDD cells for one cell
MaxnoofTDDNeighbours	Maximum number of neighbouring TDD cells for one cell
MaxnoofDLCodes	Maximum number of DL code information

## 9.1.12.1 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		–	
<b>RL Information Response</b>		0..<maxno ofRLs>			EACH	ignore
>RL ID	M		9.2.1.49		–	
>Maximum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Maximum DL TX Power	O		DL Power 9.2.2.10		–	
>Minimum DL TX Power	O		DL Power 9.2.2.10		–	
<b>&gt;Secondary CCPCH Info</b>		0..1			–	
>>FDD S-CCPCH Offset	M		9.2.2.15	Corresponds to: $\tau_{S-CCPCH,k}$ , see ref. [8]	–	
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>TFCS	M		9.2.1.63	For the DL.	–	
>>Secondary CCPCH Slot Format	M		9.2.2.38		–	
>>TFCI Presence	C - SlotFormat		9.2.1.55		–	
>>Multiplexing Position	M		9.2.2.26		–	
>>STTD Indicator	M		9.2.2.44		–	
<b>&gt;&gt;FACH/PCH Information</b>		1 .. <maxFACH Hcount+1>			–	
>>>TFS			9.2.1.64	For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
<b>&gt;&gt;Scheduling Information</b>		1			–	
>>>IB_SG_REP	M		9.2.2.21		–	
<b>&gt;&gt;&gt;Segment Information</b>		1.. <maxIBSE G>			–	
>>>>IB_SG_POS	M		9.2.2.20		–	
<b>&gt;Downlink Code Information</b>		0..<maxno ofDL Codes>			GLOBAL	ignore
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>Transmission Gap Pattern Sequence <a href="#">Scrambling Code Information Response</a>	O				–	
<b>&gt;DCH Information Response</b>		0..<maxno ofDCHs>		Only one DCH per set	GLOBAL	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				of co-ordinated DCHs shall be included.  The IE group shall be included only once per DCH per set of combined RLs.		
>>DCH ID	M		9.2.1.16		–	
>>Binding ID	M		9.2.1.3		–	
>>Transport Layer Address	M		9.2.1.62		–	
<b>&gt;DSCH to be Added or Modified</b>		0..1			YES	ignore
>>DSCH Information		1 .. <Maxnoof DSCHs>			–	
>>>DSCH ID	M				–	
>>>Priority Indicator		1..16		Provide Information for each priority class used	–	
>>>>Scheduling Priority Indicator	M			DSCH priority indicator	–	
>>>>MAC-c/sh SDU Length		1..<MaxNb MAC-c/shSDUL ength>			–	
>>>>>MAC-c/sh SDU Length	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>>PDSCH code mapping	M			PDSCH code mapping to be used	–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs.
MaxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxnoofDLCodes	Maximum number of Downlink Channelisation Codes.
MaxFACHCount	Maximum number of FACH's mapped onto secondary CCPCH's
MaxIBSEG	Maximum number of segments for one Information Block

## 9.1.17 RADIO LINK RECONFIGURATION 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	M		9.2.1.59		–	
<b>RL Information Response</b>		<i>0..&lt;maxno ofRLs&gt;</i>			EACH	ignore
>RL ID	M		9.2.1.49		–	
>Maximum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Maximum DL TX Power	O		DL Power 9.2.2.10		–	
>Minimum DL TX Power	O		DL Power 9.2.2.10		–	
> <b>Secondary CCPCH Info</b>		0..1			–	
>>FDD S-CCPCH Offset	M		9.2.2.15	Corresponds to: $\tau_{S-CCPCH,k}$ , see ref. [8]	–	
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>TFCS	M		9.2.1.63	For the DL.	–	
>>Secondary CCPCH Slot Format	M		9.2.2.38		–	
>>TFCI Presence	C - SlotFormat		9.2.1.55		–	
>>Multiplexing Position	M		9.2.2.26		–	
>>STTD Indicator	M		9.2.2.44		–	
>> <b>FACH/PCH Information</b>		1 .. <maxFACHcount+1>			–	
>>>TFS			9.2.1.64	For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
>> <b>Scheduling Information</b>		1			–	
>>>IB_SG_REP	M		9.2.2.21		–	
>>> <b>Segment Information</b>		1.. <maxIBSEG>			–	
>>>>IB_SG_POS	M		9.2.2.20		–	
> <b>DCH Information Response</b>		<i>0..&lt;maxno ofDCHs&gt;</i>		Only one DCH per set of co-ordinated DCHs shall be included.  The IE group shall be included only once per DCH per set of combined RLs.	GLOBAL	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>DCH ID	M		9.2.1.16		–	
>>Binding ID	M		9.2.1.3		–	
>>Transport Layer Address	M		9.2.1.62		–	
<b>&gt;DL Code Information</b>		0.. <maxnoof DLCodes			GLOBAL	ignore
>>DL Scrambling Code	M				–	
>>FDD DL Channelisation Code Number	M				–	
>>Transmission Gap Pattern Sequence <a href="#">Scrambling Code Information Response</a>	M				–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

Range Bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxnoofDLCodes	Maximum number of Downlink Channelisation Codes.
MaxSysinfoFACHCount	Maximum number of references to system information blocks on the FACH
MaxIBSEG	Maximum number of segments for one Information Block

## 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		–	
<b>RL Information</b>		1			YES	reject
>RL ID	M		9.2.1.49		–	
<b>&gt;DL Code Information</b>		1 .. <maxnoof DLCodes>			GLOBAL	notify
>>DL Scrambling Code	M		9.2.2.11		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>> <a href="#">Transmission Gap Pattern Sequence Scrambling Code Information</a>	<u>O</u>		<a href="#">9.2.2.47B</a>		=	

Range bound	Explanation
MaxnoofDLcodes	Maximum number of DL codes for one UE



### 9.2.2.47B Transmission Gap Pattern Sequence Scrambling Code Information Response

This IE indicates whether or not the alternative scrambling code ~~can will~~ be used in the DRNS for the Downlink compressed mode method 'SF/2'~~or not~~ in the Transmission Gap Pattern Sequence. For details see [16].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
<u>Transmission Gap Pattern Sequence Scrambling Code Information Scrambling code change</u>			Enumerated (code change, no code change)	<del>Indicates whether the alternative scrambling code is used for compressed mode method 'SF/2'. Code change = alternative scrambling code will be used.</del>

### 9.3.3 PDU Definitions

```
-- *****
--
-- PDU definitions for RNSAP.
--
-- *****

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

IMPORTS
  Active-Pattern-Sequence-Information,
  AllocationRetentionPriority,
  AllowedQueuingTime,
  BLER,
  Block-STTD-Indicator,
  BindingID,
  C-ID,
  C-RNTI,
  CCTrCH-ID,
  CellIndividualOffset,
  CFN,
  ClosedLoopModel-SupportIndicator,
  ClosedLoopMode2-SupportIndicator,
  ClosedloopTimingadjustmentmode,
  CN-CS-DomainIdentifier,
  CN-PS-DomainIdentifier,
  Cause,
  CellParameterID,
  ChipOffset,
  CriticalityDiagnostics,
  D-RNTI,
  D-RNTI-ReleaseIndication,
  DCH-ID,
  DL-DPCH-SlotFormat,
  DL-TimeslotISCP,
  DL-Power,
  DL-ScramblingCode,
```

DPCHConstantValue,  
DPCH-ID,  
DRACControl,  
DRXCycleLengthCoefficient,  
DedicatedMeasurementType,  
DedicatedMeasurementValue,  
DiversityControlField,  
DiversityMode,  
DSCH-ID,  
FACH-InitialWindowSize,  
SchedulingPriorityIndicator,  
FDD-DL-ChannelisationCodeNumber,  
FDD-S-CCPCH-Offset,  
FDD-TPC-DownlinkStepSize,  
FirstRLS-Indicator,  
FrameHandlingPriority,  
FrameOffset,  
GA-AccessPointPosition,  
GA-Cell,  
IB-SG-POS,  
IB-SG-REP,  
IMSI,  
L3-Information,  
LimitedPowerIncrease,  
MAC-c-sh-SDU-Length,  
MaximumAllowedULTxPower,  
MaxNrDLPhysicalchannels,  
MaxNrOfUL-DPCHs,  
MaxNrTimeslots,  
MaxNrULPhysicalchannels,  
MeasurementFilterCoefficient,  
MeasurementID,  
MidambleShiftAndBurstType,  
MinimumSpreadingFactor,  
MinUL-ChannelisationCodeLength,  
MultipleURAsIndicator,  
MultiplexingPosition,  
NrOfDLchannelisationcodes,  
PDSCHCodeMapping,  
PayloadCRC-PresenceIndicator,  
PCCPCH-Power,  
PowerAdjustmentType,  
PowerOffset,  
PRACH-Midamble,  
PRACH-MinimumSpreadingFactor,  
PreambleSignatures,  
PrimaryCCPCH-RSCP,  
PrimaryCPICH-EcNo,  
PrimaryCPICH-Power,  
PrimaryScramblingCode,  
PropagationDelay,

PunctureLimit,  
QE-Selector,  
RACH-SubChannelNumbers,  
RANAP-RelocationInformation,  
RB-Identity,  
RL-ID,  
RL-Set-ID,  
RNC-ID,  
RepetitionLength,  
RepetitionPeriod,  
ReportCharacteristics,  
RSSI,  
S-FieldLength,  
S-RNTI,  
SCH-TimeSlot,  
SAI,  
SN,  
SSDT-CellID,  
SSDT-CellID-Length,  
SSDT-Indication,  
SSDT-SupportIndicator,  
STTD-Indicator,  
STTD-SupportIndicator,  
AdjustmentPeriod,  
ScaledAdjustmentRatio,  
MaxAdjustmentStep,  
ScramblingCodeNumber,  
SecondaryCCPCH-SlotFormat,  
SyncCase,  
TDD-ChannelisationCode,  
TDD-DPCHOffset,  
TDD-PhysicalChannelOffset,  
TDD-TPC-DownlinkStepSize,  
TFCI-Coding,  
TFCI-Presence,  
TFCI-SignallingMode,  
TimeSlot,  
TimingAdjustmentRequired,  
ToAWE,  
ToAWS,  
TransmitDiversityIndicator,  
TransportBearerID,  
TransportBearerRequestIndicator,  
TFCS,  
Transmission-Gap-Pattern-Sequence-Information,  
Transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response,  
TransportFormatManagement,  
TransportFormatSet,  
TransportLayerAddress,  
TrCH-SrcStatisticsDescr,  
TxDiversityIndicator,

```

UARFCN,
UC-ID,
UL-DPCCH-SlotFormat,
UL-SIR,
UL-FP-Mode,
UL-ScramblingCode,
UL-TimeslotISCP,
URA-ID,
USCH-ID
FROM RNSAP-IEs

```

<Editor's note: Parts of the module is skipped.>

```

-- *****
--
-- RADIO LINK SETUP RESPONSE FDD
--
-- *****

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

RadioLinkSetupResponseFDD-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 CRITICALITY ignore TYPE CN-CS-DomainIdentifier PRESENCE optional } |
    { ID id-RL-InformationResponseList-RL-SetupRspFDD CRITICALITY ignore TYPE RL-InformationResponseList-RL-SetupRspFDD PRESENCE mandatory } |
    { ID id-UL-SIRTarget           CRITICALITY ignore TYPE UL-SIR                PRESENCE optional } |
    { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },
    ...
}

RL-InformationResponseList-RL-SetupRspFDD ::= RL-IE-ContainerList1 { {RL-InformationResponseItemIEs-RL-SetupRspFDD} }

RL-InformationResponseItemIEs-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseItem-RL-SetupRspFDD
        CRITICALITY ignore TYPE RL-InformationResponseItem-RL-SetupRspFDD PRESENCE mandatory },
    ...
}

RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                RL-ID,
    rL-Set-ID            RL-Set-ID,
    uRA-ID              URA-ID,
    sAI                 SAI,
    gA-Cell             GA-Cell    OPTIONAL,
    gA-AccessPointPosition GA-AccessPointPosition    OPTIONAL,
    rSSI               RSSI,

```

```

secondary-CCPCH-Info          Secondary-CCPCH-Info-RL-SetupRspFDD    OPTIONAL,
dl-CodeInformation            DL-CodeInformationList-RL-SetupRspFDD,
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,
dSCHInformationResponse       DSCH-InformationResponse-RL-SetupRspFDD OPTIONAL,
neighbouring-CellInformation  Neighbouring-CellInformationList-RL-SetupRsp OPTIONAL,
iE-Extensions                  ProtocolExtensionContainer { {RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
...
}

RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

Secondary-CCPCH-Info-RL-SetupRspFDD ::= 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 is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17
multiplexingPosition          MultiplexingPosition,
sTTD-Indicator                STTD-Indicator,
fACH-PCH-InformationList      FACH-PCH-InformationList-RL-SetupRspFDD,
schedulingInformation         SchedulingInformation-RL-SetupRspFDD,
iE-Extensions                  ProtocolExtensionContainer { { Secondary-CCPCH-Info-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
...
}

Secondary-CCPCH-Info-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

FACH-PCH-InformationList-RL-SetupRspFDD ::= SEQUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem-RL-SetupRspFDD

FACH-PCH-InformationItem-RL-SetupRspFDD ::= SEQUENCE {
transportFormatSet            TransportFormatSet,
iE-Extensions                  ProtocolExtensionContainer { { FACH-PCH-InformationItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
...
}

FACH-PCH-InformationItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {

```

```

}
...
}
SchedulingInformation-RL-SetupRspFDD ::= SEQUENCE {
  iB-SG-Rep          IB-SG-REP,
  segmentInformationList SegmentInformationList-RL-SetupRspFDD,
  iE-Extensions      ProtocolExtensionContainer { { SchedulingInformation-RL-SetupRspFDD-ExtIEs } } OPTIONAL,
  ...
}
SchedulingInformation-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
SegmentInformationList-RL-SetupRspFDD ::= SEQUENCE (SIZE(1..maxIBSEG)) OF SegmentInformationItem-RL-SetupRspFDD
SegmentInformationItem-RL-SetupRspFDD ::= SEQUENCE {
  iB-SG-POS          IB-SG-POS,
  iE-Extensions      ProtocolExtensionContainer { { SegmentInformationItem-RL-SetupRspFDD-ExtIEs } } OPTIONAL,
  ...
}
SegmentInformationItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
DL-CodeInformationList-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF DL-CodeInformationItem-RL-SetupRspFDD
DL-CodeInformationItem-RL-SetupRspFDD ::= SEQUENCE {
  dl-ScramblingCode      DL-ScramblingCode,
  fdd-DL-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
  transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response Transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response OPTIONAL,
  iE-Extensions          ProtocolExtensionContainer { {DL-CodeInformationItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
  ...
}
DL-CodeInformationItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
DiversityIndication-RL-SetupRspFDD ::= ProtocolIE-Single-Container {{ DiversityIndicationIE-RL-SetupRspFDD }}
DiversityIndicationIE-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
  { ID id-DiversityIndicationItem-RL-SetupRspFDD CRITICALITY ignore TYPE DiversityIndicationItem-RL-SetupRspFDD PRESENCE mandatory }
}
DiversityIndicationItem-RL-SetupRspFDD ::= CHOICE {
  combining          Combining-RL-SetupRspFDD,
  nonCombiningOrFirstRL NonCombiningOrFirstRL-RL-SetupRspFDD,
  ...
}

```

```

Combining-RL-SetupRspFDD ::= ProtocolIE-Single-Container {{ CombiningIE-RL-SetupRspFDD }}

CombiningIE-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {
  { ID id-CombiningItem-RL-SetupRspFDD  CRITICALITY ignore  TYPE CombiningItem-RL-SetupRspFDD PRESENCE mandatory }
}

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

CombiningItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

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

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

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

NonCombiningOrFirstRLItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

DCH-InformationResponseList-RL-SetupRspFDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-SetupRspFDD

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

DCH-InformationResponseItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

DSCH-InformationResponse-RL-SetupRspFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseIE-RL-SetupRspFDD }}

DSCH-InformationResponseIE-RL-SetupRspFDD RNSAP-PROTOCOL-IES ::= {

```



```

    { ID id-DSCH-InformationResponseItem-RL-SetupRspFDD  CRITICALITY ignore  TYPE  DSCH-InformationResponseItem-RL-SetupRspFDD  PRESENCE  mandatory
  }
}

DSCH-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
  dschInformationList  DSCHInformationList-RL-SetupRspFDD,
  pdSCHCodeMapping     PDSCHCodeMapping,
  iE-Extensions        ProtocolExtensionContainer { { DSCH-InformationResponseItem-RL-SetupRspFDD-ExtIEs } } OPTIONAL,
  ...
}

DSCH-InformationResponseItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

DSCHInformationList-RL-SetupRspFDD ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCHInformationItem-RL-SetupRspFDD

DSCHInformationItem-RL-SetupRspFDD ::= SEQUENCE {
  dsch-ID              DSCH-ID,
  priorityIndicator    PriorityIndicator-RL-SetupRspFDD,
  bindingID            BindingID,
  transportLayerAddress  TransportLayerAddress,
  iE-Extensions        ProtocolExtensionContainer { {DSCHInformationItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
  ...
}

DSCHInformationItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

PriorityIndicator-RL-SetupRspFDD ::= SEQUENCE (SIZE(1..16)) OF PriorityIndicatorItem-RL-SetupRspFDD

PriorityIndicatorItem-RL-SetupRspFDD ::= SEQUENCE {
  schedulingPriorityIndicator  SchedulingPriorityIndicator,
  mAC-c-sh-SDU-Lengths        MAC-c-sh-SDU-LengthList-RL-SetupRspFDD,
  iE-Extensions                ProtocolExtensionContainer { {PriorityIndicatorItem-RL-SetupRspFDD-ExtIEs} } OPTIONAL,
  ...
}

PriorityIndicatorItem-RL-SetupRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

MAC-c-sh-SDU-LengthList-RL-SetupRspFDD ::= SEQUENCE(SIZE(1..maxNrOfMACcshSDU-Length)) OF MAC-c-sh-SDU-Length

Neighbouring-CellInformationList-RL-SetupRsp ::= SEQUENCE (SIZE (0..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Single-Container {{ Neighbouring-CellInformationItemIE-RL-SetupRsp }}

Neighbouring-CellInformationItemIE-RL-SetupRsp RNSAP-PROTOCOL-IES ::= {
  { ID id-Neighbouring-CellInformationItem-RL-SetupRsp  CRITICALITY ignore  TYPE  Neighbouring-CellInformationItem-RL-SetupRsp  PRESENCE
  mandatory }
}

```

```

}

Neighbouring-CellInformationItem-RL-SetupRsp ::= SEQUENCE {
    rNC-ID                RNC-ID,
    cN-PS-DomainIdentifier CN-PS-DomainIdentifier OPTIONAL,
    cN-CS-DomainIdentifier CN-CS-DomainIdentifier OPTIONAL,
    per-FDD-Cell-InformationList Per-FDD-Cell-InformationList-RL-SetupRsp OPTIONAL,
    per-TDD-Cell-InformationList Per-TDD-Cell-InformationList-RL-SetupRsp OPTIONAL,
    iE-Extensions         ProtocolExtensionContainer { {Neighbouring-CellInformationItem-RL-SetupRsp-ExtIEs} } OPTIONAL,
    ...
}

Neighbouring-CellInformationItem-RL-SetupRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-FDD-Cell-InformationList-RL-SetupRsp ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Per-FDD-Cell-InformationItem-RL-SetupRsp

Per-FDD-Cell-InformationItem-RL-SetupRsp ::= SEQUENCE {
    c-ID                C-ID,
    uARFCNforNu        UARFCN,
    uARFCNforNd        UARFCN,
    frameOffset        FrameOffset OPTIONAL,
    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 { { Per-FDD-Cell-InformationItem-RL-SetupRsp-ExtIEs} } OPTIONAL,
    ...
}

Per-FDD-Cell-InformationItem-RL-SetupRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-TDD-Cell-InformationList-RL-SetupRsp ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC,...)) OF Per-TDD-Cell-InformationItem-RL-SetupRsp

Per-TDD-Cell-InformationItem-RL-SetupRsp ::= SEQUENCE {
    c-ID                C-ID,
    uARFCNforNt        UARFCN,
    frameOffset        FrameOffset OPTIONAL,
    cellParameterID    CellParameterID,
    syncCase           SyncCase,
    timeSlot           TimeSlot OPTIONAL
    -- This IE is present only if Sync Case = Case1 -- ,
    sCH-TimeSlot       SCH-TimeSlot OPTIONAL
    -- This IE is present only if Sync Case = Case2 -- ,
    block-STTD-Indicator Block-STTD-Indicator,

```

```

    cellIndividualOffset      CellIndividualOffset  OPTIONAL,
    dPCHConstantValue        DPCHConstantValue  OPTIONAL,
    pCCPCH-Power             PCCPCH-Power    OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { { Per-TDD-Cell-InformationItem-RL-SetupRsp-ExtIEs } } OPTIONAL,
    ...
}

Per-TDD-Cell-InformationItem-RL-SetupRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

```

**<Editor's note: Parts of the module is skipped.>**

```

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

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

RadioLinkSetupFailureFDD-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 CRITICALITY ignore TYPE CN-CS-DomainIdentifier PRESENCE optional } |
    { ID id-CauseLevel-RL-SetupFailureFDD CRITICALITY ignore TYPE CauseLevel-RL-SetupFailureFDD PRESENCE mandatory } |
    { ID id-UL-SIRTarget    CRITICALITY ignore TYPE UL-SIR          PRESENCE optional } |
    { ID id-CriticalityDiagnostics CRITICALITY ignore TYPE CriticalityDiagnostics PRESENCE optional },
    ...
}

CauseLevel-RL-SetupFailureFDD ::= CHOICE {
    generalCause          GeneralCauseList-RL-SetupFailureFDD,
    rLSpecificCause       RLSpecificCauseList-RL-SetupFailureFDD,
    ...
}

GeneralCauseList-RL-SetupFailureFDD ::= ProtocolIE-Single-Container {{ GeneralCauseIE-RL-SetupFailureFDD }}

GeneralCauseIE-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {

```

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```

    { ID id-GeneralCauseItem-RL-SetupFailureFDD      CRITICALITY ignore      TYPE GeneralCauseItem-RL-SetupFailureFDD      PRESENCE
    mandatory }
  }

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

GeneralCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

RLSpecificCauseList-RL-SetupFailureFDD ::= ProtocolIE-Single-Container { { RLSpecificCauseIE-RL-SetupFailureFDD } }

RLSpecificCauseIE-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
  { ID id-RLSpecificCauseItem-RL-SetupFailureFDD      CRITICALITY ignore      TYPE      RLSpecificCauseItem-RL-SetupFailureFDD
  PRESENCE mandatory }
}

RLSpecificCauseItem-RL-SetupFailureFDD ::= SEQUENCE {
  unsuccessful-RL-InformationRespList-RL-SetupFailureFDD      UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD,
  successful-RL-InformationRespList-RL-SetupFailureFDD      SuccessfulRL-InformationResponseList-RL-SetupFailureFDD OPTIONAL,
  iE-Extensions      ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs } } OPTIONAL,
  ...
}

RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= RL-IE-ContainerList1 { { 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,
  iE-Extensions ProtocolExtensionContainer { { UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs } } OPTIONAL,
  ...
}

UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

```

```

SuccessfulRL-InformationResponseList-RL-SetupFailureFDD ::= RL-IE-ContainerList0-1 { {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 ::= SEQUENCE {
  rL-ID                RL-ID,
  rL-Set-ID            RL-Set-ID,
  uRA-ID               URA-ID,
  sAI                  SAI,
  rSSI                 RSSI,
  dl-CodeInformation  DL-CodeInformationList-RL-SetupFailureFDD,
  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,
  maximumDLTxPower      DL-Power,
  minimumDLTxPower      DL-Power,
  dSCH-InformationResponse-RL-SetupFailureFDD DSCH-InformationResponseList-RL-SetupFailureFDD OPTIONAL,
  neighbouring-CellInformationList Neighbouring-CellInformationList-RL-SetupFailureFDD OPTIONAL,
  iE-Extensions         ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
  ...
}

SuccessfulRL-InformationResponse-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-CodeInformationList-RL-SetupFailureFDD ::= ProtocolIE-Single-Container { { DL-CodeInformationListIEs-RL-SetupFailureFDD } }

DL-CodeInformationListIEs-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
  { ID id-DL-CodeInformationListIE-RL-SetupFailureFDD    CRITICALITY ignore   TYPE DL-CodeInformationListIE-RL-SetupFailureFDD    PRESENCE mandatory
  }
}

DL-CodeInformationListIE-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF DL-CodeInformationItem-RL-SetupFailureFDD

DL-CodeInformationItem-RL-SetupFailureFDD ::= SEQUENCE {
  dl-ScramblingCode          DL-ScramblingCode,
  fDD-DL-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
  transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response OPTIONAL,
  iE-Extensions              ProtocolExtensionContainer { {DL-CodeInformationItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
}

```

```

}
...
}
DL-CodeInformationItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}
DiversityIndication-RL-SetupFailureFDD ::= ProtocolIE-Single-Container {{ DiversityIndicationIE-RL-SetupFailureFDD }}
DiversityIndicationIE-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
{ ID id-DiversityIndicationItem-RL-SetupFailureFDD CRITICALITY ignore TYPE DiversityIndicationItem-RL-SetupFailureFDD PRESENCE mandatory }
}
DiversityIndicationItem-RL-SetupFailureFDD ::= CHOICE {
combining Combining-RL-SetupFailureFDD,
nonCombiningOrFirstRL NonCombiningOrFirstRL-RL-SetupFailureFDD,
...
}
Combining-RL-SetupFailureFDD ::= ProtocolIE-Single-Container {{ CombiningIE-RL-SetupFailureFDD }}
CombiningIE-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
{ ID id-CombiningItem-RL-SetupFailureFDD CRITICALITY ignore TYPE CombiningItem-RL-SetupFailureFDD PRESENCE mandatory }
}
CombiningItem-RL-SetupFailureFDD ::= SEQUENCE {
rL-ID RL-ID,
iE-Extensions ProtocolExtensionContainer { { CombiningItem-RL-SetupFailureFDD-ExtIEs } } OPTIONAL,
...
}
CombiningItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}
NonCombiningOrFirstRL-RL-SetupFailureFDD ::= ProtocolIE-Single-Container {{ NonCombiningOrFirstRLIE-RL-SetupFailureFDD }}
NonCombiningOrFirstRLIE-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
{ ID id-NonCombiningOrFirstRLItem-RL-SetupFailureFDD CRITICALITY ignore TYPE NonCombiningOrFirstRLItem-RL-SetupFailureFDD PRESENCE mandatory }
}
NonCombiningOrFirstRLItem-RL-SetupFailureFDD ::= SEQUENCE {
dCH-InformationResponse-RL-SetupFailureFDD DCH-InformationResponseList-RL-SetupFailureFDD OPTIONAL,
iE-Extensions ProtocolExtensionContainer { { NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs } } OPTIONAL,
...
}
NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

```

```

DCH-InformationResponseList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-SetupFailureFDD

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

DCH-InformationResponseItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationResponseList-RL-SetupFailureFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationResponseListIEs-RL-SetupFailureFDD }}

DSCH-InformationResponseListIEs-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationResponseListIE-RL-SetupFailureFDD  CRITICALITY ignore  TYPE DSCH-InformationResponseListIE-RL-SetupFailureFDD  PRESENCE
    mandatory }
}

DSCH-InformationResponseListIE-RL-SetupFailureFDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCHInformationItem-RL-SetupFailureFDD

DSCHInformationItem-RL-SetupFailureFDD ::= SEQUENCE {
    dsch-ID                DSCH-ID,
    bindingID             BindingID,
    transportLayerAddress  TransportLayerAddress,
    iE-Extensions        ProtocolExtensionContainer { {DSCHInformationItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
    ...
}

DSCHInformationItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Neighbouring-CellInformationList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Single-Container {{ Neighbouring-CellInformationItemIE-RL-SetupFailureFDD }}

Neighbouring-CellInformationItemIE-RL-SetupFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-CellInformationItem-RL-SetupFailureFDD  CRITICALITY ignore  TYPE Neighbouring-CellInformationItem-RL-SetupFailureFDD
    PRESENCE  mandatory }
}

Neighbouring-CellInformationItem-RL-SetupFailureFDD ::= SEQUENCE {
    rnc-ID                RNC-ID,
    cn-PS-DomainIdentifier CN-PS-DomainIdentifier  OPTIONAL,
    cn-CS-DomainIdentifier CN-CS-DomainIdentifier  OPTIONAL,
    per-FDD-Cell-InformationList Per-FDD-Cell-InformationList-RL-SetupFailureFDD OPTIONAL,
    per-TDD-Cell-InformationList Per-TDD-Cell-InformationList-RL-SetupFailureFDD OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { {Neighbouring-CellInformationItem-RL-SetupFailureFDD-ExtIEs} } OPTIONAL,
}

```

```

}
...
}
Neighbouring-CellInformationItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}
Per-FDD-Cell-InformationList-RL-SetupFailureFDD ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Per-FDD-Cell-InformationItem-RL-SetupFailureFDD
Per-FDD-Cell-InformationItem-RL-SetupFailureFDD ::= SEQUENCE {
c-ID C-ID,
uARFCNforNu UARFCN,
uARFCNforNd UARFCN,
frameOffset FrameOffset OPTIONAL,
primaryScramblingCode PrimaryScramblingCode,
primaryCPICH-Power PrimaryCPICH-Power OPTIONAL,
cellIndividualOffset CellIndividualOffset OPTIONAL,
txDiversityIndicator TxDiversityIndicator,
sTTD-SupportIndicator STTD-SupportIndicator OPTIONAL,
closedLoopModel1-SupportIndicator ClosedLoopModel1-SupportIndicator OPTIONAL,
closedLoopMode2-SupportIndicator ClosedLoopMode2-SupportIndicator OPTIONAL,
iE-Extensions ProtocolExtensionContainer { { Per-FDD-Cell-InformationItem-RL-SetupFailureFDD-ExtIEs } } OPTIONAL,
...
}
Per-FDD-Cell-InformationItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}
Per-TDD-Cell-InformationList-RL-SetupFailureFDD ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC,...)) OF Per-TDD-Cell-InformationItem-RL-SetupFailureFDD
Per-TDD-Cell-InformationItem-RL-SetupFailureFDD ::= SEQUENCE {
c-ID C-ID,
uARFCNforNt UARFCN,
frameOffset FrameOffset OPTIONAL,
cellParameterID CellParameterID,
syncCase SyncCase,
timeSlot TimeSlot OPTIONAL
-- This IE is present only if Sync Case = Case1 -- ,
sCH-TimeSlot SCH-TimeSlot OPTIONAL
-- This IE is present only if Sync Case = Case2 -- ,
block-STTD-Indicator Block-STTD-Indicator,
cellIndividualOffset CellIndividualOffset OPTIONAL,
dPCHConstantValue DPCHConstantValue OPTIONAL,
pCCPCH-Power PCCPCH-Power,
iE-Extensions ProtocolExtensionContainer { { Per-TDD-Cell-InformationItem-RL-SetupFailureFDD-ExtIEs } } OPTIONAL,
...
}

```



```
Per-TDD-Cell-InformationItem-RL-SetupFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
RadioLinkSetupFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

**<Editor's note: Parts of the module is skipped.>**

```
-- *****
--
-- 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 ::= RL-IE-ContainerList1-1 { {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-ID         URA-ID,
  sAI            SAI,
  gA-Cell        GA-Cell    OPTIONAL,
  gA-AccessPointPosition  GA-AccessPointPosition  OPTIONAL,
  rSSI           RSSI,
  secondary-CCPCH-Info  Secondary-CCPCH-Info-RL-AdditionRspFDD    OPTIONAL,
  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 ClosedloopTimingadjustmentmode OPTIONAL,
maximumAllowedULTxPower       MaximumAllowedULTxPower,
maximumDLTxPower              DL-Power,
minimumDLTxPower              DL-Power,
neighbouring-CellInformationList Neighbouring-CellInformationList-RL-AdditionRsp OPTIONAL,
iE-Extensions                  ProtocolExtensionContainer { {RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
...
}

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

Secondary-CCPCH-Info-RL-AdditionRspFDD ::= 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 is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17
multiplexingPosition          MultiplexingPosition,
sTTD-Indicator                STTD-Indicator,
fACH-PCH-InformationList      FACH-PCH-InformationList-RL-AdditionRspFDD,
schedulingInformation         SchedulingInformation-RL-AdditionRspFDD,
iE-Extensions                 ProtocolExtensionContainer { { Secondary-CCPCH-Info-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
...
}

Secondary-CCPCH-Info-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

FACH-PCH-InformationList-RL-AdditionRspFDD ::= SEQUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem-RL-AdditionRspFDD

FACH-PCH-InformationItem-RL-AdditionRspFDD ::= SEQUENCE {
transportFormatSet            TransportFormatSet,
iE-Extensions                 ProtocolExtensionContainer { { FACH-PCH-InformationItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
...
}

FACH-PCH-InformationItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

SchedulingInformation-RL-AdditionRspFDD ::= SEQUENCE {
iB-SG-Rep                     IB-SG-REP,

```

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```

segmentInformationList      SegmentInformationList-RL-AdditionRspFDD,
iE-Extensions              ProtocolExtensionContainer { { SchedulingInformation-RL-AdditionRspFDD-ExtIEs } } OPTIONAL,
...
}

SchedulingInformation-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

SegmentInformationList-RL-AdditionRspFDD ::= SEQUENCE (SIZE(1..maxIBSEG)) OF SegmentInformationItem-RL-AdditionRspFDD

SegmentInformationItem-RL-AdditionRspFDD ::= SEQUENCE {
    iB-SG-POS                IB-SG-POS,
    iE-Extensions            ProtocolExtensionContainer { { SegmentInformationItem-RL-AdditionRspFDD-ExtIEs } } OPTIONAL,
    ...
}

SegmentInformationItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

DL-CodeInformationList-RL-AdditionRspFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-AdditionRspFDD }}

DL-CodeInformationListIEs-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CodeInformationListIE-RL-AdditionRspFDD    CRITICALITY ignore TYPE DL-CodeInformationListIE-RL-AdditionRspFDD    PRESENCE mandatory }
}

DL-CodeInformationListIE-RL-AdditionRspFDD ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF DL-CodeInformationItem-RL-AdditionRspFDD

DL-CodeInformationItem-RL-AdditionRspFDD ::= SEQUENCE {
    dl-ScramblingCode        DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber    FDD-DL-ChannelisationCodeNumber,
    transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response    Transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response
    OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { {DL-CodeInformationItem-RL-AdditionRspFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CodeInformationItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

DiversityIndication-RL-AdditionRspFDD ::= ProtocolIE-Single-Container {{ DiversityIndicationIE-RL-AdditionRspFDD }}

DiversityIndicationIE-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DiversityIndicationItem-RL-AdditionRspFDD    CRITICALITY ignore TYPE DiversityIndicationItem-RL-AdditionRspFDD    PRESENCE mandatory }
}

DiversityIndicationItem-RL-AdditionRspFDD ::= CHOICE {
    combining                Combining-RL-AdditionRspFDD,
    nonCombining             NonCombining-RL-AdditionRspFDD,
}

```

```

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

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

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

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

NonCombining-RL-AdditionRspFDD ::= ProtocolIE-Single-Container {{ NonCombiningIE-RL-AdditionRspFDD }}

NonCombiningIE-RL-AdditionRspFDD RNSAP-PROTOCOL-IES ::= {
  { ID id-NonCombiningItem-RL-AdditionRspFDD  CRITICALITY ignore  TYPE NonCombiningItem-RL-AdditionRspFDD  PRESENCE mandatory }
}

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

NonCombiningItem-RL-AdditionRspFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

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

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

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

Neighbouring-CellInformationList-RL-AdditionRsp ::= SEQUENCE (SIZE (0..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Single-Container {{ Neighbouring-CellInformationItemIE-RL-AdditionRsp }}

```

```
Neighbouring-CellInformationItemIE-RL-AdditionRsp RNSAP-PROTOCOL-IES ::= {
  { ID id-Neighbouring-CellInformationItem-RL-AdditionRsp  CRITICALITY ignore  TYPE  Neighbouring-CellInformationItem-RL-AdditionRsp  PRESENCE
    mandatory }
}
```

```
Neighbouring-CellInformationItem-RL-AdditionRsp ::= SEQUENCE {
  rNC-ID RNC-ID,
  cN-PS-DomainIdentifier CN-PS-DomainIdentifier OPTIONAL,
  cN-CS-DomainIdentifier CN-CS-DomainIdentifier OPTIONAL,
  per-FDD-Cell-InformationList Per-FDD-Cell-InformationList-RL-AdditionRsp OPTIONAL,
  per-TDD-Cell-InformationList Per-TDD-Cell-InformationList-RL-AdditionRsp OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { {Neighbouring-CellInformationItem-RL-AdditionRsp-ExtIEs} } OPTIONAL,
  ...
}
```

```
Neighbouring-CellInformationItem-RL-AdditionRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
Per-FDD-Cell-InformationList-RL-AdditionRsp ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Per-FDD-Cell-InformationItem-RL-AdditionRsp
```

```
Per-FDD-Cell-InformationItem-RL-AdditionRsp ::= SEQUENCE {
  c-ID C-ID,
  uARFCNforNu UARFCN,
  uARFCNforNd UARFCN,
  frameOffset FrameOffset OPTIONAL,
  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 { { Per-FDD-Cell-InformationItem-RL-AdditionRsp-ExtIEs} } OPTIONAL,
  ...
}
```

```
Per-FDD-Cell-InformationItem-RL-AdditionRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
Per-TDD-Cell-InformationList-RL-AdditionRsp ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC,...)) OF Per-TDD-Cell-InformationItem-RL-AdditionRsp
```

```
Per-TDD-Cell-InformationItem-RL-AdditionRsp ::= SEQUENCE {
  c-ID C-ID,
  uARFCNforNt UARFCN,
  frameOffset FrameOffset OPTIONAL,
  cellParameterID CellParameterID,
  syncCase SyncCase,
  timeSlot TimeSlot OPTIONAL
}
```

```

-- This IE is present only if Sync Case = Case1 -- ,
sCH-TimeSlot          SCH-TimeSlot          OPTIONAL
-- This IE is present only if Sync Case = Case2 -- ,
block-STTD-Indicator  Block-STTD-Indicator,
cellIndividualOffset  CellIndividualOffset  OPTIONAL,
dPCHConstantValue    DPCHConstantValue    OPTIONAL,
pCCPCH-Power          PCCPCH-Power,
iE-Extensions        ProtocolExtensionContainer { { Per-TDD-Cell-InformationItem-RL-AdditionRsp-ExtIEs} } OPTIONAL,
...
}

Per-TDD-Cell-InformationItem-RL-AdditionRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

RadioLinkAdditionResponseFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
...
}

```

**<Editor's note: Parts of the module is skipped.>**

```

-- *****
--
-- RADIO LINK ADDITION FAILURE FDD
--
-- *****

RadioLinkAdditionFailureFDD ::= SEQUENCE {
  protocolIEs          ProtocolIE-Container    {{RadioLinkAdditionFailureFDD-IEs}},
  protocolExtensions   ProtocolExtensionContainer {{RadioLinkAdditionFailureFDD-Extensions}}          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,
  rLSpecificCause       RLSpecificCauseList-RL-AdditionFailureFDD,
  ...
}

GeneralCauseList-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ GeneralCauseIE-RL-AdditionFailureFDD }}

GeneralCauseIE-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {

```

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```
{ ID id-GeneralCauseItem-RL-AdditionFailureFDD          CRITICALITY ignore
  TYPE GeneralCauseItem-RL-AdditionFailureFDD          PRESENCE mandatory }
}

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

GeneralCauseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

RLSpecificCauseList-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ RLSpecificCauseIE-RL-AdditionFailureFDD }}

RLSpecificCauseIE-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
  { ID id-RLSpecificCauseItem-RL-AdditionFailureFDD          CRITICALITY ignore          TYPE RLSpecificCauseItem-RL-
  AdditionFailureFDD          PRESENCE mandatory}
}

RLSpecificCauseItem-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 ::= RL-IE-ContainerList1-1 { {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 ::= RL-IE-ContainerList0-2 { {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-ID              URA-ID,
  sAI                 SAI,
  rSSI               RSSI,
  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-CellInformationList Neighbouring-CellInformationList-RL-AdditionFailureFDD OPTIONAL,
  iE-Extensions          ProtocolExtensionContainer { {SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
  ...
}

SuccessfulRL-InformationResponse-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-CodeInformationList-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container { { DL-CodeInformationListIEs-RL-AdditionFailureFDD } }

DL-CodeInformationListIEs-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
  { ID id-DL-CodeInformationListIE-RL-AdditionFailureFDD  CRITICALITY ignore TYPE DL-CodeInformationListIE-RL-AdditionFailureFDD  PRESENCE
  mandatory }
}

DL-CodeInformationListIE-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfDL-Codes)) OF DL-CodeInformationItem-RL-AdditionFailureFDD

DL-CodeInformationItem-RL-AdditionFailureFDD ::= SEQUENCE {
  dl-ScramblingCode          DL-ScramblingCode,
  fdd-DL-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
  transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response Transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response
  OPTIONAL,
  iE-Extensions              ProtocolExtensionContainer { {DL-CodeInformationItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
  ...
}

```



```

}

DL-CodeInformationItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ DiversityIndicationIE-RL-AdditionFailureFDD }}

DiversityIndicationIE-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DiversityIndicationItem-RL-AdditionFailureFDD    CRITICALITY ignore    TYPE    DiversityIndicationItem-RL-AdditionFailureFDD    PRESENCE
    mandatory }
}

DiversityIndicationItem-RL-AdditionFailureFDD ::= CHOICE {
    combining                Combining-RL-AdditionFailureFDD,
    nonCombining             NonCombining-RL-AdditionFailureFDD,
    ...
}

Combining-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ CombiningIE-RL-AdditionFailureFDD }}

CombiningIE-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-CombiningItem-RL-AdditionFailureFDD    CRITICALITY ignore    TYPE CombiningItem-RL-AdditionFailureFDD    PRESENCE mandatory }
}

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

CombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

NonCombining-RL-AdditionFailureFDD ::= ProtocolIE-Single-Container {{ NonCombiningIE-RL-AdditionFailureFDD }}

NonCombiningIE-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-NonCombiningItem-RL-AdditionFailureFDD    CRITICALITY ignore    TYPE NonCombiningItem-RL-AdditionFailureFDD    PRESENCE mandatory }
}

NonCombiningItem-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-InformationResponse-RL-AdditionFailureFDD    DCH-InformationResponseList-RL-AdditionFailureFDD,
    iE-Extensions            ProtocolExtensionContainer { { NonCombiningItem-RL-AdditionFailureFDD-ExtIEs } } OPTIONAL,
    ...
}

NonCombiningItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

DCH-InformationResponseList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-AdditionFailureFDD

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

```
DCH-InformationResponseItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

Neighbouring-CellInformationList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (0..maxNrOfNeighbouringRNCs)) OF ProtocolIE-Single-Container {{ Neighbouring-CellInformationItemIE-RL-AdditionFailureFDD }}

```
Neighbouring-CellInformationItemIE-RL-AdditionFailureFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-Neighbouring-CellInformationItem-RL-AdditionFailureFDD    CRITICALITY ignore TYPE    Neighbouring-CellInformationItem-RL-AdditionFailureFDD
      PRESENCE mandatory }
}
```

```
Neighbouring-CellInformationItem-RL-AdditionFailureFDD ::= SEQUENCE {
    rNC-ID                RNC-ID,
    cN-PS-DomainIdentifier CN-PS-DomainIdentifier    OPTIONAL,
    cN-CS-DomainIdentifier CN-CS-DomainIdentifier    OPTIONAL,
    per-FDD-Cell-InformationList Per-FDD-Cell-InformationList-RL-AdditionFailureFDD    OPTIONAL,
    per-TDD-Cell-InformationList Per-TDD-Cell-InformationList-RL-AdditionFailureFDD    OPTIONAL,
    iE-Extensions        ProtocolExtensionContainer { {Neighbouring-CellInformationItem-RL-AdditionFailureFDD-ExtIEs} } OPTIONAL,
    ...
}
```

```
Neighbouring-CellInformationItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

Per-FDD-Cell-InformationList-RL-AdditionFailureFDD ::= SEQUENCE ( SIZE (1..maxNrOfFDDNeighboursPerRNC,...)) OF Per-FDD-Cell-InformationItem-RL-AdditionFailureFDD

```
Per-FDD-Cell-InformationItem-RL-AdditionFailureFDD ::= SEQUENCE {
    c-ID                C-ID,
    uARFCNforNu        UARFCN,
    uARFCNforNd        UARFCN,
    frameOffset        FrameOffset    OPTIONAL,
    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 { { Per-FDD-Cell-InformationItem-RL-AdditionFailureFDD-ExtIEs } } OPTIONAL,
    ...
}

Per-FDD-Cell-InformationItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Per-TDD-Cell-InformationList-RL-AdditionFailureFDD ::= SEQUENCE ( SIZE (1..maxNrOfTDDNeighboursPerRNC,...)) OF Per-TDD-Cell-InformationItem-RL-AdditionFailureFDD

Per-TDD-Cell-InformationItem-RL-AdditionFailureFDD ::= SEQUENCE {
    c-ID                    C-ID,
    uARFCNforNt             UARFCN,
    frameOffset             FrameOffset          OPTIONAL,
    cellParameterID        CellParameterID,
    syncCase                SyncCase,
    timeSlot                TimeSlot             OPTIONAL
    -- This IE is present only if Sync Case = Case1 -- ,
    sCH-TimeSlot            SCH-TimeSlot         OPTIONAL
    -- This IE is present only if Sync Case = Case2 -- ,
    block-STTD-Indicator    Block-STTD-Indicator,
    cellIndividualOffset    CellIndividualOffset OPTIONAL,
    dPCHConstantValue      DPCHConstantValue   OPTIONAL,
    pCCPCH-Power            PCCPCH-Power,
    iE-Extensions          ProtocolExtensionContainer { { Per-TDD-Cell-InformationItem-RL-AdditionFailureFDD-ExtIEs } } OPTIONAL,
    ...
}

Per-TDD-Cell-InformationItem-RL-AdditionFailureFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RadioLinkAdditionFailureFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

**<Editor's note: Parts of the module is skipped.>**

```

-- *****
--
-- RADIO LINK RECONFIGURATION READY FDD
--
-- *****

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

```

```

}

RadioLinkReconfigurationReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationResponseList-RL-ReconfReadyFDD   CRITICALITY ignore  TYPE RL-InformationResponseList-RL-ReconfReadyFDD   PRESENCE optional
  } |
  { ID id-CriticalityDiagnostics          CRITICALITY ignore  TYPE CriticalityDiagnostics          PRESENCE optional },
  ...
}

RL-InformationResponseList-RL-ReconfReadyFDD ::= RL-IE-ContainerList0 { {RL-InformationResponse-RL-ReconfReadyFDD-IEs} }

RL-InformationResponse-RL-ReconfReadyFDD-IEs RNSAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationResponseItem-RL-ReconfReadyFDD   CRITICALITY ignore  TYPE RL-InformationResponseItem-RL-ReconfReadyFDD   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-RL-ReconfReadyFDD  OPTIONAL,
  dl-CodeInformationList DL-CodeInformationList-RL-ReconfReadyFDD  OPTIONAL,
  dCHsInformationResponseList DCH-InformationResponseList-RL-ReconfReadyFDD  OPTIONAL,
  dSCHToBeAddedOrModified DSCHToBeAddedOrModified-RL-ReconfReadyFDD  OPTIONAL,
  iE-Extensions        ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
  ...
}

RL-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

Secondary-CCPCH-Info-RL-ReconfReadyFDD ::= 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 is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17
  multiplexingPosition  MultiplexingPosition,
  sTTD-Indicator        STTD-Indicator,
  fACH-PCH-InformationList FACH-PCH-InformationList-RL-ReconfReadyFDD,
  schedulingInformation SchedulingInformation-RL-ReconfReadyFDD,
  iE-Extensions        ProtocolExtensionContainer { { Secondary-CCPCH-Info-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
  ...
}

```

```

Secondary-CCPCH-Info-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

FACH-PCH-InformationList-RL-ReconfReadyFDD ::= SEQUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem-RL-ReconfReadyFDD

FACH-PCH-InformationItem-RL-ReconfReadyFDD ::= SEQUENCE {
    transportFormatSet          TransportFormatSet,
    iE-Extensions                ProtocolExtensionContainer { { FACH-PCH-InformationItem-RL-ReconfReadyFDD-ExtIEs } } OPTIONAL,
    ...
}

FACH-PCH-InformationItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SchedulingInformation-RL-ReconfReadyFDD ::= SEQUENCE {
    iB-SG-Rep                    IB-SG-REP,
    segmentInformationList        SegmentInformationList-RL-ReconfReadyFDD,
    iE-Extensions                ProtocolExtensionContainer { { SchedulingInformation-RL-ReconfReadyFDD-ExtIEs } } OPTIONAL,
    ...
}

SchedulingInformation-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

SegmentInformationList-RL-ReconfReadyFDD ::= SEQUENCE (SIZE(1..maxIBSEG)) OF SegmentInformationItem-RL-ReconfReadyFDD

SegmentInformationItem-RL-ReconfReadyFDD ::= SEQUENCE {
    iB-SG-POS                    IB-SG-POS,
    iE-Extensions                ProtocolExtensionContainer { { SegmentInformationItem-RL-ReconfReadyFDD-ExtIEs } } OPTIONAL,
    ...
}

SegmentInformationItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CodeInformationList-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfReadyFDD }}

DL-CodeInformationListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CodeInformationListIE-RL-ReconfReadyFDD CRITICALITY ignore TYPE DL-CodeInformationListIE-RL-ReconfReadyFDD PRESENCE mandatory }
}

DL-CodeInformationListIE-RL-ReconfReadyFDD ::= SEQUENCE (SIZE (0..maxNrOfDL-Codes)) OF DL-CodeInformationItem-RL-ReconfReadyFDD

DL-CodeInformationItem-RL-ReconfReadyFDD ::= SEQUENCE {
    dl-ScramblingCode            DL-ScramblingCode,
    fdd-DL-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,

```

```

Transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response
Response OPTIONAL,
iE-Extensions
ProtocolExtensionContainer { { DL-CodeInformationItem-RL-ReconfReadyFDD-ExtIEs } } OPTIONAL,
...
}

DL-CodeInformationItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

DCH-InformationResponseList-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfReadyFDD} }

DCH-InformationResponseListIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
{ ID id-DCH-InformationResponseListIE-RL-ReconfReadyFDD CRITICALITY ignore TYPE DCH-InformationResponseListIE-RL-ReconfReadyFDD PRESENCE
mandatory }
}

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

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

DCH-InformationResponseItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

DSCHToBeAddedOrModified-RL-ReconfReadyFDD ::= ProtocolIE-Single-Container { {DSCHToBeAddedOrModifiedIEs-RL-ReconfReadyFDD} }

DSCHToBeAddedOrModifiedIEs-RL-ReconfReadyFDD RNSAP-PROTOCOL-IES ::= {
{ ID id-DSCHToBeAddedOrModifiedIE-RL-ReconfReadyFDD CRITICALITY ignore TYPE DSCHToBeAddedOrModifiedIE-RL-ReconfReadyFDD PRESENCE mandatory }
}

DSCHToBeAddedOrModifiedIE-RL-ReconfReadyFDD ::= SEQUENCE {
dschInformation DSCHInformation-RL-ReconfReadyFDD,
pdSCHCodeMapping PDSCHCodeMapping,
iE-Extensions ProtocolExtensionContainer { {DSCHToBeAddedOrModifiedIE-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
...
}

DSCHToBeAddedOrModifiedIE-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

DSCHInformation-RL-ReconfReadyFDD ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCHInformationItem-RL-ReconfReadyFDD

DSCHInformationItem-RL-ReconfReadyFDD ::= SEQUENCE {

```

```

    dsch-ID                DSCH-ID,
    priorityIndicator      PriorityIndicator-RL-ReconfReadyFDD,
    bindingID              BindingID,
    transportLayerAddress  TransportLayerAddress,
    iE-Extensions          ProtocolExtensionContainer { {DSCHInformation-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
    ...
}

DSCHInformation-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PriorityIndicator-RL-ReconfReadyFDD ::= SEQUENCE (SIZE(1..16)) OF PriorityIndicatorItem-RL-ReconfReadyFDD

PriorityIndicatorItem-RL-ReconfReadyFDD ::= SEQUENCE {
    schedulingPriorityIndicator  SchedulingPriorityIndicator,
    mac-c-sh-SDU-Lengths        MAC-c-sh-SDU-LengthList-RL-ReconfReadyFDD,
    iE-Extensions                ProtocolExtensionContainer { {PriorityIndicatorItem-RL-ReconfReadyFDD-ExtIEs} } OPTIONAL,
    ...
}

PriorityIndicatorItem-RL-ReconfReadyFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

MAC-c-sh-SDU-LengthList-RL-ReconfReadyFDD ::= SEQUENCE (SIZE(1..maxNrOfMACcshSDU-Length)) OF MAC-c-sh-SDU-Length

RadioLinkReconfigurationReadyFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

**<Editor's note: Parts of the module is skipped.>**

```

-- *****
--
-- RADIO LINK RECONFIGURATION RESPONSE
--
-- *****

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

RadioLinkReconfigurationResponse-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-RL-InformationResponseList-RL-ReconfRsp    CRITICALITY ignore TYPE RL-InformationResponseList-RL-ReconfRsp      PRESENCE optional } |
    { ID id-CriticalityDiagnostics                    CRITICALITY ignore TYPE CriticalityDiagnostics      PRESENCE optional },
    ...
}

```

```

}

RL-InformationResponseList-RL-ReconfRsp ::= RL-IE-ContainerList0 { {RL-InformationResponse-RL-ReconfRsp-IEs} }

RL-InformationResponse-RL-ReconfRsp-IEs RNSAP-PROTOCOL-IES ::= {
  { ID id-RL-InformationResponseItem-RL-ReconfRsp CRITICALITY ignore TYPE RL-InformationResponseItem-RL-ReconfRsp PRESENCE mandatory },
  ...
}

RL-InformationResponseItem-RL-ReconfRsp ::= SEQUENCE {
  rL-ID RL-ID,
  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-RL-ReconfRsp OPTIONAL,
  dCHsInformationResponseList DCH-InformationResponseList-RL-ReconfRsp OPTIONAL,
  dL-CodeInformationList-RL-ReconfRsp DL-CodeInformationList-RL-ReconfRsp OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { {RL-InformationResponseItem-RL-ReconfRsp-ExtIEs} } OPTIONAL,
  ...
}

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

Secondary-CCPCH-Info-RL-ReconfRsp ::= 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 is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17
  multiplexingPosition MultiplexingPosition,
  sTTD-Indicator STTD-Indicator,
  fACH-PCH-InformationList FACH-PCH-InformationList-RL-ReconfRsp,
  schedulingInformation SchedulingInformation-RL-ReconfRsp,
  iE-Extensions ProtocolExtensionContainer { { Secondary-CCPCH-Info-RL-ReconfRsp-ExtIEs} } OPTIONAL,
  ...
}

Secondary-CCPCH-Info-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

FACH-PCH-InformationList-RL-ReconfRsp ::= SEQUENCE (SIZE(1..maxFACHCountPlus1)) OF FACH-PCH-InformationItem-RL-ReconfRsp

FACH-PCH-InformationItem-RL-ReconfRsp ::= SEQUENCE {
  transportFormatSet TransportFormatSet,
  iE-Extensions ProtocolExtensionContainer { { FACH-PCH-InformationItem-RL-ReconfRsp-ExtIEs} } OPTIONAL,
}

```



```

}
...
}
FACH-PCH-InformationItem-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}
SchedulingInformation-RL-ReconfRsp ::= SEQUENCE {
  iB-SG-Rep          IB-SG-REP,
  segmentInformationList SegmentInformationList-RL-ReconfRsp,
  iE-Extensions      ProtocolExtensionContainer { { SchedulingInformation-RL-ReconfRsp-ExtIEs } } OPTIONAL,
  ...
}
SchedulingInformation-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}
SegmentInformationList-RL-ReconfRsp ::= SEQUENCE (SIZE(1..maxIBSEG)) OF SegmentInformationItem-RL-ReconfRsp
SegmentInformationItem-RL-ReconfRsp ::= SEQUENCE {
  iB-SG-POS          IB-SG-POS,
  iE-Extensions      ProtocolExtensionContainer { { SegmentInformationItem-RL-ReconfRsp-ExtIEs } } OPTIONAL,
  ...
}
SegmentInformationItem-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}
DCH-InformationResponseList-RL-ReconfRsp ::= ProtocolIE-Single-Container { {DCH-InformationResponseListIEs-RL-ReconfRsp} }
DCH-InformationResponseListIEs-RL-ReconfRsp RNSAP-PROTOCOL-IES ::= {
  { ID id-DCH-InformationResponseListIE-RL-ReconfRsp      CRITICALITY ignore TYPE DCH-InformationResponseListIE-RL-ReconfRsp PRESENCE mandatory
  }
}
DCH-InformationResponseListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-ReconfRsp
DCH-InformationResponseItem-RL-ReconfRsp ::= SEQUENCE {
  dCH-ID            DCH-ID,
  bindingID         BindingID,
  transportLayerAddress TransportLayerAddress,
  iE-Extensions     ProtocolExtensionContainer { {DCH-InformationResponseItem-RL-ReconfRsp-ExtIEs} } OPTIONAL,
  ...
}
DCH-InformationResponseItem-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

```

```

DL-CodeInformationList-RL-ReconfRsp ::= ProtocolIE-Single-Container {{ DL-CodeInformationListIEs-RL-ReconfRsp }}

DL-CodeInformationListIEs-RL-ReconfRsp RNSAP-PROTOCOL-IES ::= {
  { ID id-DL-CodeInformationListIE-RL-ReconfRsp  CRITICALITY ignore TYPE DL-CodeInformationListIE-RL-ReconfRsp  PRESENCE optional }
}

DL-CodeInformationListIE-RL-ReconfRsp ::= SEQUENCE (SIZE (0..maxNrOfDL-Codes)) OF DL-CodeInformationItem-RL-ReconfRsp

DL-CodeInformationItem-RL-ReconfRsp ::= SEQUENCE {
  dl-ScramblingCode          DL-ScramblingCode,
  fdd-DL-ChannelisationCodeNumber  FDD-DL-ChannelisationCodeNumber,
  transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response  Transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response,
  iE-Extensions              ProtocolExtensionContainer { { DL-CodeInformationItem-RL-ReconfRsp-ExtIEs } } OPTIONAL,
  ...
}

DL-CodeInformationItem-RL-ReconfRsp-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

RadioLinkReconfigurationResponse-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

<Editor's note: Parts of the module is skipped.>

-- *****
--
-- PHYSICAL CHANNEL RECONFIGURATION REQUEST FDD
--
-- *****

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

PhysicalChannelReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
  { ID id-RL-Information-PhyChReconfRqstFDD  CRITICALITY reject TYPE RL-Information-PhyChReconfRqstFDD  PRESENCE mandatory },
  ...
}

```

```

RL-Information-PhyChReconfRqstFDD ::= SEQUENCE {
    rL-ID                RL-ID,
    dl-CodeInformations DL-CodeInformationList-PhyChReconfRqstFDD,
    iE-Extensions        ProtocolExtensionContainer { {RL-Information-PhyChReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-PhyChReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DL-CodeInformationList-PhyChReconfRqstFDD ::= ProtocolIE-Single-Container { {DL-CodeInformationListIEs-PhyChReconfRqstFDD} }

DL-CodeInformationListIEs-PhyChReconfRqstFDD RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CodeInformationListIE-PhyChReconfRqstFDD CRITICALITY notify TYPE DL-CodeInformationListIE-PhyChReconfRqstFDD PRESENCE mandatory }
}

DL-CodeInformationListIE-PhyChReconfRqstFDD ::= SEQUENCE (SIZE(1..maxNrOfDL-Codes)) OF DL-CodeInformationItem-PhyChReconfRqstFDD

DL-CodeInformationItem-PhyChReconfRqstFDD ::= SEQUENCE {
    dl-scramblingCode          DL-ScramblingCode,
    fDD-DL-ChannelisationCodeNumber FDD-DL-ChannelisationCodeNumber,
    transmission-Gap-Pattern-Sequence-ScramblingCode-Information Transmission-Gap-Pattern-Sequence-ScramblingCode-Information OPTIONAL,
    iE-Extensions              ProtocolExtensionContainer { {DL-CodeInformationItem-PhyChReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

DL-CodeInformationItem-PhyChReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PhysicalChannelReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

**<Editor's note: The rest of the module is skipped.>**

## 9.3.4 Information Element Definitions

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

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

```
DEFINITIONS AUTOMATIC TAGS ::=
```

```
BEGIN
```

```
<Editor's note: Parts of the module is skipped.>
```

```
Transmission-Gap-Pattern-Sequence-ScramblingCode-Information-Response ::= ENUMERATED{  
code-change,  
nocode-change  
}
```

```
<Editor's note: The rest of the module is skipped.>
```

**TSG-RAN Working Group 3 Meeting #16  
Windsor, UK, 16<sup>th</sup> –20<sup>th</sup> October 2000**

**Document R3-002501**

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

<h2 style="margin: 0;">CHANGE REQUEST</h2>		<i>Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.</i>
<b>25.423</b>	<b>CR</b>	<b>204</b>
GSM (AA.BB) or 3G (AA.BBB) specification number ↑		↑ CR number as allocated by MCC support team
For submission to: <b>TSG RAN #10</b>	for approval <input checked="" type="checkbox"/>	strategic <input type="checkbox"/>
<i>list expected approval meeting # here</i> ↑	for information <input type="checkbox"/>	non-strategic <input type="checkbox"/> <small>(for SMG use only)</small>

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

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

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

**Subject:** Clarification of Measurement Termination at Measurement Object Deletion

**Work item:**

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

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

**Reason for change:** In the current RNSAP specification it is not clearly specified what happens if a procedure removes an object (RL, RL set, or DPCH) that has an active measurement. Such a procedure could be the RL Deletion procedure (RL or RL Set) or Synchronised RL Reconfiguration Preparation/Commit (DPCH).

This CR clarifies that the measurement for any such removed object is terminated locally.

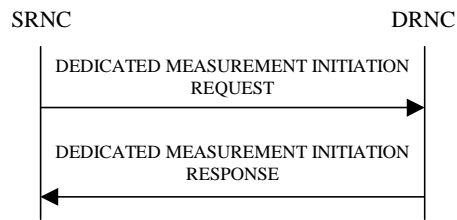
Consequences if not approved:  
The handling of objects with active measurements when they are removed will remain unclear if this CR is not approved.

**Clauses affected:** 8.3.11.2

<b>Other specs affected:</b>	Other 3G core specifications <input checked="" type="checkbox"/> Other GSM core specifications <input type="checkbox"/> MS test specifications <input type="checkbox"/> BSS test specifications <input type="checkbox"/> O&M specifications <input type="checkbox"/>	→ List of CRs: TS 25.433 CR252 → List of CRs: → List of CRs: → List of CRs: → List of CRs:
------------------------------	--	--

**Other comments:**

### 8.3.11.2 Successful Operation



**Figure 1: 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 measurement according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

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

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

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.

[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.]

#### Report characteristics

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

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

If the *Report Characteristics* IE is set to 'Periodic', the DRNS shall periodically initiate a 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 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 DRNC shall use the value zero for the hysteresis time.

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

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

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

If the *Report Characteristics* IE is set to 'Event E', the DRNS shall initiate a Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). The DRNS shall also initiate a Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (Report B). If the *Report Periodicity* IE is provided, the DRNS shall initiate Measurement Reporting procedures periodically, with the requested frequency, between Report A and Report B. 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 a Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). The DRNS shall also initiate a Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (Report B). If the *Report Periodicity* IE is provided, the DRNS shall initiate Measurement Reporting procedures periodically, with the requested frequency, between Report A and Report B. If 'Measurement Threshold 2' is not present, the DRNS shall use 'Measurement Threshold 1' instead. If no 'Measurement Hysteresis Time' is provided, the DRNS 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 a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

#### Higher layer filtering

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows:

$F_n$  is the updated filtered measurement result

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

$M_n$  is the latest received measurement result from physical layer measurements

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

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

#### Response message

If the 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 measurement request.

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 request message.





## 9.2.1.13 Criticality Diagnostics

IE/Group Name	Presence	Range	IE type and reference	Semantics description
<b>Criticality Diagnostics</b>				
>Procedure ID		0..1		<u>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</u>
>>Procedure Code	M		INTEGER (0..255)	<u>Procedure code is to be used if Criticality diagnostics is part of Error Indication procedure, and not within the response message of the same operation that caused the error</u>
>>Ddmode	M		ENUMERATED (FDD, TDD, Common)	Common = common to FDD and TDD.
>Triggering Message	O		ENUMERATED (initiating message, successful outcome, unsuccessful outcome, outcome)	The Triggering Message is used only if the Criticality <del>d</del> iagnostics is part of Error Indication <u>except when the procedure code is not understood.</u>
> <u>Procedure</u> Criticality <u>Response</u>	O		ENUMERATED (reject, ignore, notify)	This <u>Procedure</u> Criticality <u>response</u> <del>IE</del> is used for reporting the Criticality of the Triggering message ( <u>Procedure</u> ). The value 'ignore' shall never be used.
>Transaction ID	O		Transaction ID	
<b>Information Element Criticality Diagnostics</b>		<del>40</del> ..<maxnoof errors>		
> <u>IE</u> Criticality <u>Response</u>	M		ENUMERATED (reject, ignore, notify)	The <u>IE</u> Criticality <u>response</u> <del>IE</del> is used for reporting the criticality of the triggering IE. The value 'ignore' shall never be used.
>IE Id	M		INTEGER (0..65535)	The IE Id of the not understood or missing IE as defined in the ASN.1 part of the specification.
>Repetition Number	O		INTEGER (1..256)	The repetition number of the not understood IE if applicable

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

## 9.3.4 Information Element Definitions

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

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

```
DEFINITIONS AUTOMATIC TAGS ::=
```

```
BEGIN
```

```
<Editor's note: Parts of the module is skipped.>
```

```
-- 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 {  
    transaction-not-allowed,  
    transfer-syntax-error,  
    abstract-syntax-error-reject,  
    abstract-syntax-error-ignore-and-notify,  
    message-not-compatible-with-receiver-state,  
    semantic-error,  
    unspecified,  
    abstract-syntax-error-falsely-constructed-message,  
    ...  
}
```

```
CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-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,
    reconfiguration-not-allowed,
    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,
    dch-not-supported,
    dsch-not-supported,
    usch-not-supported,
    rach-fach-cpch-not-supported,
    ul-spreading-factor-not-supported,
    dl-spreading-factor-not-supported,
    cm-not-supported,
    transaction-not-supported-by-destination-node-b,
    ...
}

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

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

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

CellIndividualOffset ::= INTEGER (-20..20)

CellParameterID     ::= INTEGER (0..127,...)

CFN                 ::= INTEGER (0..255)

ChannelCodingType ::= ENUMERATED {
    no-coding,
    convolutional-coding,
    turbo-coding,
```

```

}
...
ChipOffset ::= INTEGER (0..38399)

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,
  ...
}

CRC-Size ::= ENUMERATED {
  v0,
  v8,
  v12,
  v16,
  v24,
  ...
}

CriticalityDiagnostics ::= SEQUENCE {
  procedureID ProcedureID OPTIONAL,
  triggeringMessage TriggeringMessage OPTIONAL,
  procedureCriticalityResponse Criticality OPTIONAL,
  transactionID TransactionID OPTIONAL,
  iEsCriticalityDiagnosticsResponses CriticalityDiagnostics-IE-List OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } OPTIONAL,
  ...
}

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

```

```

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

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

CN-CS-DomainIdentifier ::= SEQUENCE {
    pLMN-ID PLMN-ID,
    lAC LAC,
    iE-Extensions ProtocolExtensionContainer { {CN-CS-DomainIdentifier-ExtIEs} } OPTIONAL
}

CN-CS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CN-PS-DomainIdentifier ::= SEQUENCE {
    pLMN-ID PLMN-ID,
    lAC LAC,
    rAC RAC,
    iE-Extensions ProtocolExtensionContainer { {CN-PS-DomainIdentifier-ExtIEs} } OPTIONAL
}

CN-PS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

-- D

```

**<Editor's note: The rest of the module is skipped.>**

## 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.

### 10.3.4.2 IEs other than the Procedure ID

The receiving node shall treat the different types of received criticality information of an IE/IE group other than the *Procedure ID* according to the following:

#### Reject IE:

- if a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the rejection of one or more IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure.
- if a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing one or more IEs/IE groups marked with "*Reject IE*" which the receiving node does not comprehend, the receiving node shall initiate the Error Indication procedure.
- if a *response* message is received containing one or more IEs/IE groups marked with "*Reject IE*", that the receiving node does not comprehend, the receiving node shall initiate local error handling.

#### Ignore IE and Notify Sender:

- if a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and report in the response message of the procedure that one or more IEs/IE groups have been ignored.
- if a message *initiating* a procedure that does not have a message to report the outcome of the procedure is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups, continue with the procedure as if the not comprehended IEs/IE groups were not received (except for the reporting) using the understood IEs/IE groups, and initiate the Error Indication procedure to report that one or more IEs/IE groups have been ignored.
- if a *response* message is received containing one or more IEs/IE groups marked with "*Ignore IE and Notify Sender*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and initiate the Error Indication procedure.

**Ignore IE:**

- if a message *initiating* a procedure is received containing one or more IEs/IE groups marked with "*Ignore IE*" which the receiving node does not comprehend, the receiving node shall ignore the content of the not comprehended IEs/IE groups and continue with the procedure as if the not comprehended IEs/IE groups were not received using the understood IEs/IE groups.

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. The *Repetition Number IE* shall be included in the *Information Element Criticality Diagnostics IE* if the reported IE/IE group was part of a "SEQUENCE OF" definition.

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. The *Repetition Number IE* shall be included in the *Information Element Criticality Diagnostics IE* if the reported IE/IE group was part of a "SEQUENCE OF" definition.

### 10.3.5 Missing IE or IE group

The receiving node shall treat the missing IE/IE group according to the criticality information for the missing IE/IE group in the received message specified in the version of this specification used by the receiver:

#### Reject IE:

- if a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Reject IE*"; none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the missing IEs/IE groups using the message normally used to report unsuccessful outcome of the procedure.
- if a received message *initiating* a procedure that does not have a message to report unsuccessful outcome is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall initiate the Error Indication procedure.
- if a received *response* message is missing one or more IEs/IE groups with specified criticality "*Reject IE*", the receiving node shall initiate local error handling.

#### Ignore IE and Notify Sender:

- if a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall continue with the procedure based on the other IEs/IE groups present in the message and report in the response message of the procedure that one or more IEs/IE groups were missing.
- if a received message *initiating* a procedure that does not have a message to report the outcome of the procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall continue with the procedure based on the other IEs/IE groups present in the message and initiate the Error Indication procedure to report that one or more IEs/IE groups were missing.
- if a received *response* message is missing one or more IEs/IE groups with specified criticality "*Ignore IE and Notify Sender*", the receiving node shall initiate the Error Indication procedure.

#### Ignore IE:

- if a received message *initiating* a procedure is missing one or more IEs/IE groups with specified criticality "*Ignore IE*", the receiving node shall continue with the procedure based on the other IEs/IE groups present in the message.

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.

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.





**Other specs affected:**

Other 3G core specifications  
Other GSM core specifications  
MS test specifications  
BSS test specifications  
O&M specifications


→ List of CRs:  
→ List of CRs:  
→ List of CRs:  
→ List of CRs:  
→ List of CRs:

--

**Other comments:**

--

## 8.4.2.2 Successful Operation



**Figure 1: 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. ~~The SRNC may include the C-RNTI-IE in the message to request the release of an individual C-RNTI.~~

At the reception of the message, ~~if the C-RNTI-IE is not present in the message,~~ the DRNC shall release the ~~whole~~-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.~~

~~If the C-RNTI-IE is included in the message, the DRNC shall release only the indicated C-RNTI.~~

### 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	M		9.2.1.24		YES	ignore
<del>C-RNTI</del>	<del>⊕</del>		<del>9.2.1.14</del>	<del>Release of an individual C-RNTI.</del>	<del>YES</del>	<del>ignore</del>

### 9.3.3 PDU Definitions

```
-- *****
--
-- PDU definitions for RNSAP.
--
-- *****
```

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

```
BEGIN
```

**<Editor's note: Part of the module is skipped.>**

```
-- *****
--
-- COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
--
-- *****
```

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

```
CommonTransportChannelResourcesReleaseRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-D-RNTI                CRITICALITY ignore TYPE D-RNTI                PRESENCE mandatory }+
    { ID id-C-RNTI                CRITICALITY ignore TYPE C-RNTI                PRESENCE optional },
    ...
}
```

```
CommonTransportChannelResourcesReleaseRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

**<Editor's note: The rest of the module is skipped.>**

## CHANGE REQUEST

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

**25.423 CR 207 R2**

Current Version: **3.3.0**

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

↑ CR number as allocated by MCC support team

For submission to: **TSG RAN #10**

for approval

strategic

list expected approval meeting # here ↑

for information

non-strategic

(for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG

The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:**

(at least one should be marked with an X)

(U)SIM

ME

UTRAN / Radio

Core Network

**Source:** **R-WG3**

**Date:** **October 2000**

**Subject:** **Downlink Power Control correction**

**Work item:**

**Category:**

(only one category shall be marked with an X)

- F Correction
- A Corresponds to a correction in an earlier release
- B Addition of feature
- C Functional modification of feature
- D Editorial modification

**Release:** Phase 2

Release 96

Release 97

Release 98

Release 99

Release 00

**Reason for change:**

**R2:**  
Change to the formula now done with the equation editor.

**R1:**  
R1 handles the following comments received during R3#16:

- In stead of talking about the absolute P[ref] power, the formula is updated to  
Change formula to P[ref] + P[PCPICH]
- Remove accuracy requirement changes (handled in other CR)

**R0:**  
Correction of the *Pinit* definition in order to support compressed mode.

In order to have correct behaviour of the synchronised power balancing function we propose that the *Pinit*, i.e. the downlink code power used in the Downlink Power Control procedure, during a transmission gap shall be set to the code power of the last transmitted slot.

Also the accuracy requirement has been removed since power balancing is performed in the digital domain of the transmitter. Further, a minor clarification is made regarding the definition of *Pref*.

Consequences if not approved:

Synchronised downlink power balancing will not work correctly during compressed mode.

**Clauses affected:** **8.3.15**

**Other specs affected:**

Other 3G core specifications

Other GSM core specifications

→ List of CRs: **TS 25.433 CR254**

→ List of CRs:

MS test specifications

BSS test specifications

O&M specifications


→ List of CRs:

→ List of CRs:

→ List of CRs:

**Other  
comments:**

## 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 1: 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 DRNC shall perform the power adjustment (see below) for all radio links for the UE context using a common DL reference power level.

If the value of the *Power Adjustment Type* IE is "Individual", the DRNC 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 value of the *Power Adjustment Type* IE is "None", the DRNS shall suspend on going power adjustments for all radio links for the UE context.

#### Power Adjustment

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

$$\sum P_{bal} = (1 - r)(P_{ref} + P_{P-CPICH} - P_{init}) \sum P_{bal} = (1 - r)(P_{ref} - P_{init})$$

with an accuracy of  $\pm 0.5$  dB

where the sum is performed over an adjustment period corresponding to a number of frames equal to the value of the *Adjustment Period* IE,  $P_{ref}$  is the value of the *DL Reference Power* IE,  $P_{P-CPICH}$  is the power used on the Primary CPICH,  $P_{init}$  is the code power of at the last beginning 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,  $P_{init}$  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 repeated for every adjustment period, until a new DL POWER CONTROL REQUEST message is received or the RL is deleted.





## 8.3.14 Measurement Failure

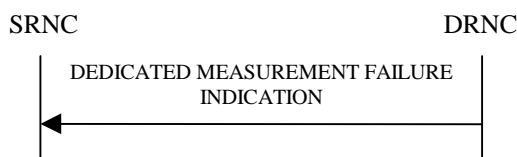
### 8.3.14.1 General

This procedure is used by the DRNS to notify the SRNS that a measurement previously requested by the 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 Measurement Failure procedure at any time after establishing a Radio Link.

### 8.3.14.2 Successful Operation



**Figure 1: 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 measurement can no longer ~~can~~ 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

-

## CHANGE REQUEST

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

**25.423 CR 210**

Current Version: **3.3.0**

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

↑ CR number as allocated by MCC support team

For submission to: **TSG RAN #10**

list expected approval meeting # here ↑

for approval

for information

strategic

non-strategic

(for SMG use only)

Form: CR cover sheet, version 2 for 3GPP and SMG

The latest version of this form is available from: <ftp://ftp.3gpp.org/Information/CR-Form-v2.doc>

**Proposed change affects:**

(at least one should be marked with an X)

(U)SIM

ME

UTRAN / Radio

Core Network

**Source:** **R-WG3**

**Date:** **October 2000**

**Subject:** **Protocol specification principles**

**Work item:**

**Category:**

(only one category shall be marked with an X)

- F Correction
- A Corresponds to a correction in an earlier release
- B Addition of feature
- C Functional modification of feature
- D Editorial modification

**Release:**

- Phase 2
- Release 96
- Release 97
- Release 98
- Release 99
- Release 00

**Reason for change:**

This group of CR's clarifies the protocol specification principles that are used in the specification.

If this group of CR's is not accepted, unclarity in the specifications could lead to interoperability problems.

**Clauses affected:** **4.1.**

**Other specs** Other 3G core specifications

→ List of CRs: TS 25.413 CR190  
TS 25.433 CR260

**affected:**

- Other GSM core specifications
- MS test specifications
- BSS test specifications
- O&M specifications

→ List of CRs:

→ List of CRs:

→ List of CRs:

→ List of CRs:

**Other comments:**

---

## 4 General

### 4.1 Procedure Specification Principles

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

The following specification principles have been applied for the procedure text in chapter 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.



## 8.3.4 Synchronised Radio Link Reconfiguration Preparation

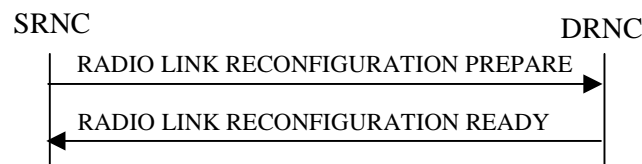
### 8.3.4.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of all Radio Links 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 1440: 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 before providing a response to the SRNC.

#### **DCH Modification:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Allocation/Retention Priority* IE for a DCH to be modified, the DRNS should use this information when reserving resources for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message 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 RADIO LINK RECONFIGURATION PREPARE message 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 RADIO LINK RECONFIGURATION PREPARE message 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.

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs to Modify* IE with 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 RADIO LINK RECONFIGURATION PREPARE message includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the 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 RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWS* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the 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 RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWE* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the DRNS shall apply the new *ToAWE* 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 present and set to "requested" in the RADIO LINK RECONFIGURATION PREPARE message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCCH Info* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]

#### **DCH Addition:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be added to the Radio Link(s), 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 RADIO LINK RECONFIGURATION PREPARE message 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].]

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 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 the RADIO LINK RECONFIGURATION PREPARE message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCCH Info* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]

#### **DCH Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be deleted from the Radio Link(s), the DRNS shall not include this DCH 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 the *Uplink Scrambling Code* IE, the DRNS shall apply this Uplink Scrambling Code to the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *Uplink Channelisation Code* IEs, the DRNS shall apply the new Uplink Channelisation Code(s) in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *Number of DL Channelisation Code 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, DRNS shall include the *Transmission Gap Pattern Sequence Information Response IE* in the RADIO LINK RECONFIGURATION READY message in case it 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  $p$ th to “*PhCH number p*”.]

[FDD - 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 - 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 RADIO LINK RECONFIGURATION PREPARE message includes on the *Diversity Mode IE*, the DRNS shall apply diversity according to the given value.]

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

FDD – If the RADIO LINK RECONFIGURATION PREPARE message 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 RADIO LINK RECONFIGURATION PREPARE message 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] section 5.2.1 for the inner loop DL power control in the new configuration.]

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

#### [TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes UL/DL CCTrCH to be modified and includes any of *TFCS IE*, *TFCI coding IE*, *Puncture limit IE*, or *TPC CCTrCH ID IEs* the DRNC 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 *Midamble shift and Burst Type IE*, *Time Slot IE*, *TFCI presence IE* or Code information was modified. The DRNC shall include code information if *TDD Channelisation Code IE* was modified.]

#### [TDD – UL/DL CCTrCH Addition]

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

[TDD – If the DRNC 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.]

#### [TDD – UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any UL or DL CCTrCH to be deleted, the DRNC shall remove this CCTrCH in the new configuration.]

#### SSDT Activation/Deactivation:



[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SSDT Indication* IE set to "SSDT Active in the UE", the DRNS shall activate SSDT, if supported, using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SSDT Indication* IE set to "SSDT not Active in the UE", the DRNS shall deactivate SSDT in the new configuration.]

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.

~~In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur the *DCH Information Response* IE group 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 *DCH Information Response* IE group shall be included only for one of the combined Radio Links.

#### Compressed Mode Preparation:

[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.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *Transmission Gap Pattern Sequence Information* IE and 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 DRNS shall include the *Transmission Gap Pattern Sequence Information Response* IE to the RADIO LINK RECONFIGURATION READY message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not].

#### DSCH Addition/Modification/Deletion:

The DRNC shall use any included DSCH information for the DSCHs to be added/modified/deleted in the RADIO LINK RECONFIGURATION PREPARE message, 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.

To add or modify each DSCH, 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 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.

~~The DRNS shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE of the DSCHs being added or modified.~~

#### USCH Addition/Modification/Deletion [TDD]

The DRNC shall use any included USCH information for the USCHs to be added/modified/deleted in the RADIO LINK RECONFIGURATION PREPARE message, 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.

To add or modify each USCH, 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*.

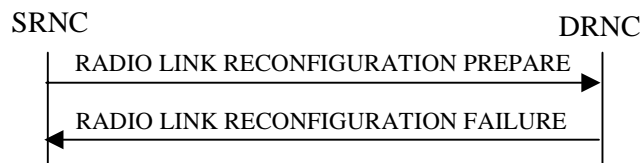
If the requested modifications are allowed by the DRNC and the DRNC has successfully reserved the required resources for the new configuration of the Radio Link(s), it shall respond to the SRNC with the RADIO LINK RECONFIGURATION READY message.

~~The DRNS shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address IE* and the *Binding ID IE* of the USCHs being added or modified.~~

### General

~~The DRNS shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address IE* and the *Binding ID 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 coordinated DCHs requiring a new transport bearer on Iur, the *DCH Information Response IE* shall be included only for one of the DCH in the set of coordinated DCHs.~~

### 8.3.4.3 Unsuccessful Operation



**Figure 2244: 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 procedure as having failed.

- If the requested Synchronised Radio Link Reconfiguration 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.

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 shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

In which cases to include only the *Cause IE* on message level and in which cases the *Cause IE* also shall be included for a specific RL is FFS.

[FDD - If the DRNS cannot support the requested number of DL Codes on a permanent basis, the DRNS shall regard the Radio Link Setup procedure as failed and shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Number of DL Codes Not Supported".]

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;
- Invalid CM Settings;
- Number of DL codes not supported;
- [TDD- DCH not Supported];

- DSCH not Supported;
- [TDD - USCH not Supported];
- [FDD - UL Spreading Factor not Supported];
- [FDD - DL Spreading Factor not Supported];
- CM not Supported.

**Protocol Causes:**

- Transaction not Allowed.

**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.

## 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 Preparation procedure.

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

### 8.3.5.2 Successful Operation



**Figure 3342: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation**

The DRNS shall switch to the new configuration previously prepared by the Synchronised RL Reconfiguration procedure at the CFN requested by the SRNC when receiving the RADIO LINK RECONFIGURATION COMMIT message from the SRNC. [FDD – The CFN shall be ignored by DRNS if only Transmission Gap Pattern Sequence Information was included in the RL Reconfiguration.] When this procedure has been completed the Prepared Reconfiguration does not exist any more, see 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.

[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 CM Configuration Change CFN. From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE group repetitions shall be started when the indicated TGCFN elapses. The *CM Configuration Change CFN* in the *Active Pattern Sequence Information* IE and *TGCFN* for each sequence refers to the next coming CFN with that value. If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in ref. [26].]

### 8.3.5.3 Abnormal Conditions

## 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 Preparation procedure.

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

### 8.3.6.2 Successful Operation



**Figure 4413: 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

-

## 8.3.7 Unsynchronised Radio Link Reconfiguration

### 8.3.7.1 General

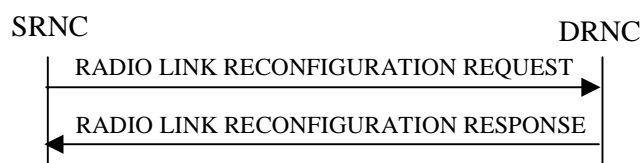
The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a DRNS.

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 5514: 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 before providing a response to the SRNC.

#### **DCH Modification:**

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *Allocation/Retention Priority* IE for a DCH to be modified, the DRNS should use this new value when reserving resources for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes on 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 RADIO LINK RECONFIGURATION REQUEST message 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 RADIO LINK RECONFIGURATION REQUEST message 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 RADIO LINK RECONFIGURATION REQUEST message includes a *DCHs to Modify* IE with 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 RADIO LINK RECONFIGURATION REQUEST message includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the 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 RADIO LINK RECONFIGURATION REQUEST message includes the *ToAWS* IE for a DCH or a DCH which belongs to 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 RADIO LINK RECONFIGURATION REQUEST message includes the *ToAWE* IE for a DCH or a DCH which belongs to 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.

[FDD - If the *DRAC Control* IE is present and set to "requested" in the RADIO LINK RECONFIGURATION REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.]

#### **DCH Addition:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be added to the Radio Link(s), 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 RADIO LINK RECONFIGURATION REQUEST message 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 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].]

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 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 the RADIO LINK RECONFIGURATION REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE and the *Reference to System Information blocks* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.

#### **DCH Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be deleted from the Radio Link(s), the DRNS shall not include this DCH 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 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 the *TFCS* IE for the DL, the DRNS shall apply the new TFCS in the Downlink of the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message 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] section 5.2.1 for the inner loop DL power control in the new configuration.]

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

#### **[TDD - UL/DL CCTrCH Modification]**

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes UL/DL CCTrCH to be modified the DRNC shall apply the included *TFCS* IE as the new value.]

#### **[TDD – UL/DL CCTrCH Deletion]**

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any UL or DL CCTrCH to be deleted, the DRNC shall remove this CCTrCH in the new configuration.]

If the requested modifications are allowed by the DRNS, the DRNS has successfully allocated the required resources, and changed to the new configuration it 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 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 RESPONSE message.

~~In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur the *DCH Information Response IE* group shall be included only for one of the DCH in the set of co-ordinated DCHs.~~

In case of a Radio Link being combined with another Radio Link within the DRNS the *DCH Information Response IE* group shall be included only for one of the combined Radio Links.

#### Compressed Mode Preparation:

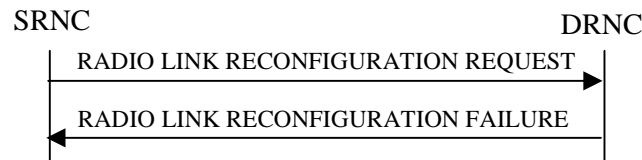
[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information IE* the DRNS shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode configuration.]

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information IE* and 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 DRNS shall include the *DL Code Information IE* group in the RADIO LINK RECONFIGURATION RESPONSE message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not.]

#### General

The DRNS shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Transport Layer Address IE* and the *Binding ID 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 coordinated DCHs requiring a new transport bearer on Iur, the *DCH Information Response IE* shall be included only for one of the DCH in the set of coordinated DCHs.

### 8.3.7.3 Unsuccessful Operation



**Figure 6615: Unsyncronised Radio Link Reconfiguration procedure, Unsuccessful Operation**

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 Unsyncronised Radio Link Reconfiguration procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

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 Unsyncronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsyncronised 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;
- Invalid CM Setting;
- CM not Supported.

**Protocol Causes:**

- Transaction not Allowed.

**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.



## 9.1.11 RADIO LINK RECONFIGURATION PREPARE

### 9.1.11.1 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		–	
Allowed Queuing Time	O		9.2.1.2		YES	reject
<b>UL DPCH Information</b>		0..1			YES	reject
>UL Scrambling Code	O		9.2.2.53		–	
>UL SIR Target	O		Uplink SIR 9.2.1.69		–	
>Min UL Channelisation Code Length	O		9.2.2.25		–	
>Max Number of UL DPDCHs	C – CodeLen		9.2.2.24		–	
>Puncture Limit	O		9.2.1.46	For the UL.	–	
>TFCS	O		9.2.1.63	TFCS for the UL.	–	
>UL DPCCH Slot Format	O		9.2.2.52		–	
>Diversity mode	O		9.2.2.8		–	
>SSDT Cell Identity Length	O		9.2.2.41		–	
>S-Field Length	O		9.2.2.36		–	
<b>DL DPCH Information</b>		0..1			YES	reject
>TFCS	O		9.2.1.63	TFCS for the DL.	–	
>DL DPCH Slot Format	O		9.2.2.9		–	
>Number of DL channelisation codes	O				–	
>TFCI Signalling Mode	O		9.2.2.46		–	
>TFCI Presence	C- SlotFormat		9.2.1.55		–	
>MultiplexingPosition	O		9.2.2.26		–	
>Limited Power Increase	O		9.2.1.33		–	
<b>DCHs to Modify</b>		0..<maxnoof DCHs>			GLOBAL	reject
>UL FP Mode	O		9.2.1.67		–	
>ToAWS	O		9.2.1.58		–	
>ToAWE	O		9.2.1.57		–	
>Transport Bearer Request Indicator	M		9.2.1.61		–	
<b>&gt;DCH Specific Info</b>		1..<maxnoof DCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>Transport Format Set	O		9.2.1.64	For the UL.	–	
>>Transport Format Set	O		9.2.1.64	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1		–	
>>Frame Handling Priority	O		9.2.1.29		–	
>>DRAC Control	O		9.2.2.13		–	
<b>DCHs to Add</b>		0..<maxnoof DCHs>			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxnoof			–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
		<i>DCHs</i> >				
>>DCH ID	M		9.2.1.16		–	
>>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		9.2.1.3	For the UL.	–	
>>BLER	M		9.2.1.3	For the DL.	–	
>>Allocation/Retention Priority	M		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		–	
<b>DCHs to Delete</b>		0..<maxnoof DCHs>			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	
<b>DSCH to modify</b>		0..1			YES	reject
>DSCH Info		0..<maxnoof DSCHs>			–	
>>DSCH ID	M				–	
>>TrCh Source Statistics Descriptor	O					
>>Transport Format Set	O			For DSCH	–	
>>Allocation/Retention Priority	O				–	
>>Scheduling Priority Indicator	O				–	
>>BLER	O				–	
<u>&gt;&gt;Transport Bearer Request Indicator</u>	<u>M</u>		<u>9.2.1.61</u>		<u>:</u>	
>PDSCH RL ID	O		RL ID		–	
>Transport Format Combination Set	O			For DSCH	–	
<b>DSCH to add</b>		0..1			YES	reject
>DSCH Info		1..<maxnoof DSCHs>			–	
>>DSCH ID	M				–	
>>TrCh Source Statistics Descriptor	M				–	
>>Transport Format Set	M			For DSCH	–	
>>Allocation/Retention Priority	M				–	
>>Scheduling Priority Indicator	M				–	
>>BLER	M				–	
>PDSCH RL ID	M		RL ID		–	
>Transport Format Combination Set	M			For DSCH	–	
<b>DSCHs to delete</b>		0..1			YES	reject
>DSCH Info		1..<maxnoof DSCHs>			–	
>>DSCH ID	M				–	
<b>RL Information</b>		0..<maxnoof RLs>			EACH	reject
>RL ID	M		9.2.1.49		–	
>SSDT Indication	O		9.2.2.41		–	
>SSDT Cell Identity	C - SSDTIndON		9.2.2.40		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.50		–	
Transmission Gap Pattern Sequence Information	O				YES	reject

Condition	Explanation
SSDTIndON	The IE may be present if the SSDT Indication is set to 'SSDT Active in the UE'.
CodeLen	This IE is present only if "Min UL Channelisation Code length" equals to 4.
SlotFormat	This IE is only present if the DL DPCH Slot Format is equal to any of the values 12 to 16.
Diversity mode	This IE is present if <i>Diversity Mode</i> IE is present in <i>UL DPCH Information</i> group, unless it is equal to "none".

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.

## 9.1.11.2 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	O		9.2.1.2		YES	reject
<b>UL CCTrCH to add</b>		0..<maxno of CCTrCHs>		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		–	
<b>UL CCTrCH to modify</b>		0..<maxno of CCTrCHs>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	O			For the UL.	–	
>TFCI Coding	O				–	
>Puncture Limit	O				–	
<b>UL CCTrCH to delete</b>		0..<maxno of CCTrCHs>			EACH	notify
>CCTrCH ID	M				–	
<b>DL CCTrCH to add</b>		0..<maxno of CCTrCHs>		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		–	
<b>&gt;TPC CCTrCH List</b>		1 to <maxno CCTrCH>		List of uplink CCTrCH which provide TPC	–	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.2		–	
<b>DL CCTrCH to modify</b>		0..<maxno of CCTrCHs>			EACH	notify
>CCTrCH ID	M				–	
>TFCS	O			For the DL.	–	
>TFCI Coding	O				–	
>Puncture Limit	O				–	
<b>&gt;TPC CCTrCH List</b>		0 to <maxno CCTrCH>		List of uplink CCTrCH which provide TPC	–	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
<b>DL CCTrCH to delete</b>		0..<maxno of CCTrCHs>			EACH	notify
>CCTrCH ID	M				–	
<b>DCHs to Modify</b>		0..<maxno of DCHs>			GLOBAL	reject
>UL FP Mode	O		9.2.1.67		–	
>ToAWS	O		9.2.1.58		–	
>ToAWE	O		9.2.1.57		–	
>Transport Bearer Request Indicator	M		9.2.1.61		–	
>DCH Specific Info		1..<maxno			–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
		<i>ofDCHs&gt;</i>				
>>DCH ID	M		9.2.1.16		–	
>>CCTrCH ID	O		9.2.3.2	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	O		9.2.3.2	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	O		9.2.1.64	For the UL.	–	
>>Transport Format Set	O		9.2.1.64	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1		–	
>>Frame Handling Priority	O		9.2.1.29		–	
<b>DCHs to Add</b>		<i>0..&lt;maxno ofDCHs&gt;</i>			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		<i>1..&lt;maxno ofDCHs&gt;</i>			–	
>>DCH ID	M		9.2.1.16		–	
>>CCTrCH ID	M		9.2.3.2	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	M		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		9.2.1.3	For the UL.	–	
>>BLER	M		9.2.1.3	For the DL.	–	
>>Allocation/Retention Priority	M		9.2.1.1		–	
>>Frame Handling Priority	M		9.2.1.29		–	
>>QE-Selector	C-CoordDCH		9.2.1.46A		–	
<b>DCHs to Delete</b>		<i>0..&lt;maxno ofDCHs&gt;</i>			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	
<b>DSCHs to Modify</b>		<i>0..&lt;maxno ofDSCHs&gt;</i>			GLOBAL	reject
>DSCH ID	M				–	
>CCTrCH Id	O			DL CCTrCH in which the DSCH is mapped.	–	
>TrCh Source Statistics Descriptor	O				–	
>Transport Format Set	O				–	
>Allocation/Retention Priority	O				–	
>Scheduling Priority Indicator	O				–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>BLER	O				–	
>Transport Bearer Request Indicator	M		9.2.1.61		:	
<b>DSCHs to Add</b>		0..<maxno ofDSCHs>			GLOBAL	reject
>DSCH ID	M				–	
>CCTrCH Id	M			DL CCTrCH in which the DSCH is mapped.	–	
>TrCh Source Statistics Descriptor	M					
>Transport Format Set	M					
>Allocation/Retention Priority	M					
>Scheduling Priority Indicator	M					
>BLER	M				–	
<b>DSCHs to Delete</b>		0..<maxno ofDSCHs>			GLOBAL	reject
>DSCH ID	M				–	
<b>USCHs to Modify</b>		0..<maxno ofUSCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH Id	O			UL CCTrCH in which the USCH is mapped.	–	
>TrCh Source Statistics Descriptor	O				–	
>Transport Format Set	O				–	
>Allocation/Retention Priority	O				–	
>Scheduling Priority Indicator	O				–	
>BLER	O				–	
>Transport Bearer Request Indicator	M		9.2.1.61		:	
<b>&gt;RB Info</b>		1 to <maxno of RB>		All Radio Bearers using this USCH	–	
>>RB Identity	M				–	
<b>USCHs to Add</b>		0..<maxno ofUSCHs>			GLOBAL	reject
>USCH ID	M				–	
>CCTrCH Id	M			UL CCTrCH in which the USCH is mapped.	–	
>TrCh Source Statistics Descriptor	M				–	
>Transport Format Set	M				–	
>Allocation/Retention Priority	M				–	
>Scheduling Priority Indicator	M				–	
>BLER	M				–	
<b>&gt;RB Info</b>		1 to <maxno of RB>		All Radio Bearers using this USCH	–	
>>RB Identity	M				–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
USCHs to Delete		0..<maxno ofUSCHs>			GLOBAL	reject
>USCH ID	M				–	

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

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofUSCHs	Maximum number of USCHs for one UE.
MaxnoofRBs	Maximum number of Radio Bearers for one UE.

## 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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Allowed Queuing Time	O		9.2.1.2		YES	reject
<b>UL DPCH Information</b>		0..1			YES	reject
>TFCS	O		9.2.1.63	TFCS for the UL.	–	
<b>DL DPCH Information</b>		0..1			YES	reject
>TFCS	O		9.2.1.63	TFCS for the DL.	–	
>TFCI Signalling Mode	O		9.2.2.46		–	
>Limited Power Increase	O		9.2.1.33		–	
<b>DCHs to Modify</b>		0..<maxno ofDCHs>			GLOBAL	reject
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
>Transport Bearer Request Indicator	M		9.2.1.61		–	
<b>&gt;DCH Specific Info</b>		1..<maxno ofDCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>Transport Format Set	O		9.2.1.64	For the UL.	–	
>>Transport Format Set	O		9.2.1.64	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1		–	
>>Frame Handling Priority	O		9.2.1.29		–	
>>DRAC Control	O		9.2.2.13		–	
<b>DCHs to add</b>		0..<maxno ofDCHs>			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxno ofDCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>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		9.2.1.3	For the UL.	–	
>>BLER	M		9.2.1.3	For the DL.	–	
>>Allocation/Retention Priority	M		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		–	
<b>DCHs to Delete</b>		0..<maxno ofDCHs>			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	
Transmission Gap Pattern Sequence Information	O				YES	reject



<b>Range Bound</b>	<b>Explanation</b>
MaxnoofDCHs	Maximum number of DCHs for a UE.

## 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	O		9.2.1.2		YES	reject
<b>UL CCTrCH Information to modify</b>		0..<maxnoof CCTrCHs>			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
>TFCS	M		9.2.1.63		–	
<b>UL CCTrCH Information to delete</b>		0..<maxnoof CCTrCHs>			EACH	notify
>CCTrCH ID	M				–	
<b>DL CCTrCH Information to modify</b>		0..<maxnoof CCTrCHs>			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
>TFCS	M		9.2.1.63		–	
<b>DL CCTrCH Information to delete</b>		0..<maxnoof CCTrCHs>			EACH	notify
>CCTrCH ID	M				–	
<b>DCHs to Modify</b>		0..<maxnoof DCHs>			GLOBAL	reject
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
>Transport Bearer Request Indicator	M		9.2.1.61		:	
<b>&gt;DCH Specific Info</b>		1..<maxnoof DCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>CCTrCH ID	O		9.2.3.2	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	O		9.2.3.2	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	O		9.2.1.64	For the UL.	–	
>>Transport Format Set	O		9.2.1.64	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1		–	
>>Frame Handling Priority	O		9.2.1.29		–	
<b>DCHs to Add</b>		0..<maxnoof DCHs>			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxnoof DCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>TrCh Source Statistics Descriptor	M		9.2.1.65		–	
>>CCTrCH ID	M		9.2.3.2	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DCH is	–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
				mapped		
>>Transport Format Set	M		9.2.1.64	For the UL.	–	
>>Transport Format Set	M		9.2.1.64	For the DL.	–	
>>BLER	M		9.2.1.3	For the UL.	–	
>>BLER	M		9.2.1.3	For the DL.	–	
>>Allocation/Retention Priority	M		9.2.1.1		–	
>>Frame Handling Priority	M		9.2.1.29		–	
>>QE-Selector	C-CoordDCH		9.2.1.46A		–	
<b>DCHs to Delete</b>		<i>0..&lt;maxnoof DCHs&gt;</i>			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	

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

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

### 9.2.1.61 Transport Bearer Request Indicator

Indicates whether a new Iur transport bearer needs to be established for carrying the corresponding FACH data stream(s), or whether an existing transport bearer will be used.

IE/Group Name	Presence	<u>RangeMult</u>	IE type and reference	Semantics description
Transport Bearer Request Indicator			ENUMERATED(Bearer Requested, Bearer not Requested)	

```

-- *****
--
-- RADIO LINK RECONFIGURATION PREPARE FDD
--
-- *****

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

RadioLinkReconfigurationPrepareFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject TYPE AllowedQueuingTime          PRESENCE optional } |
    { ID id-UL-DPCH-Information-RL-ReconfPrepFDD CRITICALITY reject TYPE UL-DPCH-Information-RL-ReconfPrepFDD PRESENCE optional } |
    { ID id-DL-DPCH-Information-RL-ReconfPrepFDD CRITICALITY reject TYPE DL-DPCH-Information-RL-ReconfPrepFDD PRESENCE optional } |
    { ID id-DCH-ModifyList-RL-ReconfPrepFDD CRITICALITY reject TYPE DCH-ModifyList-RL-ReconfPrepFDD PRESENCE optional } |
    { ID id-DCH-AddList-RL-ReconfPrepFDD CRITICALITY reject TYPE DCH-AddList-RL-ReconfPrepFDD PRESENCE optional } |
    { ID id-DCH-DeleteList-RL-ReconfPrepFDD CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfPrepFDD PRESENCE optional } |
    { ID id-DSCH-Modify-RL-ReconfPrepFDD CRITICALITY reject TYPE DSCH-Modify-RL-ReconfPrepFDD PRESENCE optional } |
    { ID id-DSCH-Add-RL-ReconfPrepFDD CRITICALITY reject TYPE DSCH-Add-RL-ReconfPrepFDD PRESENCE optional } |
    { ID id-DSCH-Delete-RL-ReconfPrepFDD CRITICALITY reject TYPE DSCH-Delete-RL-ReconfPrepFDD PRESENCE optional } |
    { ID id-RL-InformationList-RL-ReconfPrepFDD CRITICALITY reject TYPE RL-InformationList-RL-ReconfPrepFDD PRESENCE optional } |
    { ID id-Transmission-Gap-Pattern-Sequence-Information CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE optional }
},
...
}

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

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

DL-DPCH-Information-RL-ReconfPrepFDD ::= SEQUENCE {
    tFCS                       TFCS                OPTIONAL,

```

```

dl-DPCH-SlotFormat          DL-DPCH-SlotFormat          OPTIONAL,
nrOfDLchannelisationcodes  NrOfDLchannelisationcodes  OPTIONAL,
tFCI-SignallingMode        TFCI-SignallingMode        OPTIONAL,
tFCI-Presence              TFCI-Presence              OPTIONAL
-- This IE is present if Slot Format 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 ::= {
...
}

DCH-ModifyList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfPrepFDD

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

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

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

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

DCH-ModifySpecificItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

DCH-AddList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfPrepFDD

DCH-AddItem-RL-ReconfPrepFDD ::= SEQUENCE {
payloadCRC-PresenceIndicator PayloadCRC-PresenceIndicator,

```

```

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

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

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

DCH-AddSpecificItem-RL-ReconfPrepFDD ::= 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,
    iE-Extensions            ProtocolExtensionContainer { {DCH-AddSpecificItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-AddSpecificItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepFDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepFDD

DCH-DeleteItem-RL-ReconfPrepFDD ::= SEQUENCE {
    dCH-ID                    DCH-ID,
    iE-Extensions            ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-DeleteItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-Modify-RL-ReconfPrepFDD ::= SEQUENCE {
    dSCH-Information         DSCH-ModifyInfo-RL-ReconfPrepFDD OPTIONAL,
    pdSCH-RL-ID              RL-ID OPTIONAL,
    tFCS                      TFCS OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { {DSCH-Modify-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

```

```
DSCH-Modify-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
DSCH-ModifyInfo-RL-ReconfPrepFDD ::= SEQUENCE (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,
  bLER                     BLER                          OPTIONAL,
  transportBearerRequestIndicator  TransportBearerRequestIndicator,
  iE-Extensions            ProtocolExtensionContainer { {DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
  ...
}
```

```
DSCH-ModifyInformationItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
DSCH-Add-RL-ReconfPrepFDD ::= SEQUENCE {
  dSCH-Information        DSCH-AddInfo-RL-ReconfPrepFDD,
  pdSCH-RL-ID            RL-ID,
  tFCS                   TFCS,
  iE-Extensions          ProtocolExtensionContainer { {DSCH-Add-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
  ...
}
```

```
DSCH-Add-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
DSCH-AddInfo-RL-ReconfPrepFDD ::= SEQUENCE (SIZE(1..maxNoOfDSCHs)) OF DSCH-AddInformationItem-RL-ReconfPrepFDD
```

```
DSCH-AddInformationItem-RL-ReconfPrepFDD ::= SEQUENCE {
  dSCH-ID                DSCH-ID,
  trChSourceStatisticsDescriptor  TrCH-SrcStatisticsDescr,
  transportFormatSet     TransportFormatSet,
  allocationRetentionPriority  AllocationRetentionPriority,
  schedulingPriorityIndicator  SchedulingPriorityIndicator,
  bLER                     BLER,
  iE-Extensions            ProtocolExtensionContainer { {DSCH-AddInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
  ...
}
```

```
DSCH-AddInformationItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```



```

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 ::= SEQUENCE {
    dSCH-ID                  DSCH-ID,
    iE-Extensions            ProtocolExtensionContainer { {DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

DSCH-DeleteInformationItem-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

RL-InformationList-RL-ReconfPrepFDD          ::= RL-IE-ContainerList0 { {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 may be present if the sSDT-Indication is set to 'sSDT-active-in-the-UE' --,
    transmitDiversityIndicator TransmitDiversityIndicator    OPTIONAL,
    -- This IE is present if Diversity Mode IE in UL DPCH Information group is present, unless it is equal to "none"
    iE-Extensions            ProtocolExtensionContainer { {RL-Information-RL-ReconfPrepFDD-ExtIEs} } OPTIONAL,
    ...
}

RL-Information-RL-ReconfPrepFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

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

```

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

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

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-ReconfPrepTDD PRESENCE 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-ReconfPrepTDD PRESENCE 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-DCH-ModifyList-RL-ReconfPrepTDD                CRITICALITY reject  TYPE DCH-ModifyList-RL-ReconfPrepTDD                PRESENCE optional } |
  { ID id-DCH-AddList-RL-ReconfPrepTDD                    CRITICALITY reject  TYPE DCH-AddList-RL-ReconfPrepTDD                    PRESENCE optional } |
  { ID id-DCH-DeleteList-RL-ReconfPrepTDD                CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfPrepTDD                PRESENCE optional } |
  { ID id-DSCH-ModifyList-RL-ReconfPrepTDD                CRITICALITY reject  TYPE DSCH-ModifyList-RL-ReconfPrepTDD                PRESENCE optional } |
  { ID id-DSCH-AddList-RL-ReconfPrepTDD                  CRITICALITY reject  TYPE DSCH-AddList-RL-ReconfPrepTDD                  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-USCH-AddList-RL-ReconfPrepTDD                  CRITICALITY reject  TYPE USCH-AddList-RL-ReconfPrepTDD                  PRESENCE optional } |
  { ID id-USCH-DeleteList-RL-ReconfPrepTDD                CRITICALITY reject  TYPE USCH-DeleteList-RL-ReconfPrepTDD                PRESENCE optional },
  ...
}

UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= CCTrCH-IE-ContainerList0 { {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 ::= {
  ...
}
```

```

}

UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= CCTrCH-IE-ContainerList0 { {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 TFCS OPTIONAL,
  tFCI-Coding TFCI-Coding OPTIONAL,
  punctureLimit PunctureLimit OPTIONAL,
  iE-Extensions ProtocolExtensionContainer { {UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
  ...
}

UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= CCTrCH-IE-ContainerList0 { {UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs} }

UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
  { ID id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD CRITICALITY notify TYPE UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD PRESENCE mandatory
  },
  ...
}

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

UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= CCTrCH-IE-ContainerList0 { {DL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs} }

DL-CCTrCH-AddInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
  { ID id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD CRITICALITY notify TYPE DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD PRESENCE mandatory
  },
  ...
}

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  cCTrCH-ID CCTrCH-ID,
  tFCS TFCS,

```

```

    tFCI-Coding          TFCI-Coding,
    punctureLimit        PunctureLimit,
    cCtRCH-TPCList       CCTrCH-TPCAddList-RL-ReconfPrepTDD,
    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 ::= SEQUENCE {
    cCtRCH-ID            CCTrCH-ID,
    iE-Extensions        ProtocolExtensionContainer { { CCTrCH-TPCAddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

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

DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD ::= CCTrCH-IE-ContainerList0 { {DL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IEs} }

DL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD    CRITICALITY notify    TYPE DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD    PRESENCE
    mandatory    },
    ...
}

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCtRCH-ID            CCTrCH-ID,
    tFCS                 TFCS    OPTIONAL,
    tFCI-Coding          TFCI-Coding    OPTIONAL,
    punctureLimit        PunctureLimit    OPTIONAL,
    cCtRCH-TPCList       CCTrCH-TPCModifyList-RL-ReconfPrepTDD    OPTIONAL,
    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 (0..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD

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

```

```

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

DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD ::= CCTrCH-IE-ContainerList0 { {DL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs} }

DL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD CRITICALITY notify TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD PRESENCE
    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-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfPrepTDD

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

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

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

DCH-ModifySpecificItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dCH-ID                    DCH-ID,
    ul-CCTrCH-ID              CCTrCH-ID OPTIONAL,
    dl-CCTrCH-ID              CCTrCH-ID OPTIONAL,
    ul-TransportformatSet     TransportFormatSet OPTIONAL,
    dl-TransportformatSet     TransportFormatSet OPTIONAL,
    allocationRetentionPriority AllocationRetentionPriority OPTIONAL,
    frameHandlingPriority     FrameHandlingPriority OPTIONAL,
    iE-Extensions            ProtocolExtensionContainer { {DCH-ModifySpecificItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

```

```

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

DCH-AddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfPrepTDD

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

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

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

DCH-AddSpecificItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dCH-ID                            DCH-ID,
    ul-CCTrCH-ID                      CCTrCH-ID,
    dl-CCTrCH-ID                      CCTrCH-ID,
    trCH-SrcStatisticsDescr           TrCH-SrcStatisticsDescr,
    ul-TransportformatSet             TransportFormatSet,
    dl-TransportformatSet             TransportFormatSet,
    ul-BLER                           BLER,
    dl-BLER                           BLER,
    allocationRetentionPriority        AllocationRetentionPriority,
    frameHandlingPriority              FrameHandlingPriority,
    qE-Selector                       QE-Selector OPTIONAL,
    -- This IE is present only if DCH is part of set of Coordinated DCHs
    iE-Extensions                     ProtocolExtensionContainer { {DCH-AddSpecificItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-AddSpecificItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfPrepTDD

DCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
    dCH-ID                            DCH-ID,
    iE-Extensions                     ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
    ...
}

```

```
DCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
DSCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-ModifyItem-RL-ReconfPrepTDD
```

```
DSCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dSCH-ID                DSCH-ID,
  dl-ccTrCHID            CTrCH-ID                               OPTIONAL,
  trChSourceStatisticsDescriptor TrCH-SrcStatisticsDescr OPTIONAL,
  transportFormatSet     TransportFormatSet                   OPTIONAL,
  allocationRetentionPriority AllocationRetentionPriority       OPTIONAL,
  schedulingPriorityIndicator SchedulingPriorityIndicator       OPTIONAL,
  BLER                   BLER                                   OPTIONAL,
  transportBearerRequestIndicator TransportBearerRequestIndicator,
  iE-Extensions          ProtocolExtensionContainer { {DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
  ...
}
```

```
DSCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
DSCH-AddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-AddItem-RL-ReconfPrepTDD
```

```
DSCH-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dSCH-ID                DSCH-ID,
  dl-ccTrCHID            CTrCH-ID,
  trChSourceStatisticsDescriptor TrCH-SrcStatisticsDescr,
  transportFormatSet     TransportFormatSet,
  allocationRetentionPriority AllocationRetentionPriority,
  schedulingPriorityIndicator SchedulingPriorityIndicator,
  BLER                   BLER,
  iE-Extensions          ProtocolExtensionContainer { {DSCH-AddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
  ...
}
```

```
DSCH-AddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

```
DSCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfDSCHs)) OF DSCH-DeleteItem-RL-ReconfPrepTDD
```

```
DSCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
  dSCH-ID                DSCH-ID,
  iE-Extensions          ProtocolExtensionContainer { {DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
  ...
}
```

```
DSCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

USCH-ModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-ModifyItem-RL-ReconfPrepTDD

```
USCH-ModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
-- R#-1972,CR161r2
  uSCH-ID                USCH-ID,
  ul-ccTrCHID            CCTrCH-ID                OPTIONAL,
  trChSourceStatisticsDescriptor  TrCH-SrcStatisticsDescr OPTIONAL,
  transportFormatSet     TransportFormatSet        OPTIONAL,
  allocationRetentionPriority  AllocationRetentionPriority  OPTIONAL,
  schedulingPriorityIndicator  SchedulingPriorityIndicator  OPTIONAL,
  bLER                   BLER                        OPTIONAL,
  transportBearerRequestIndicator  TransportBearerRequestIndicator,
  rb-Info                RB-Info,
  iE-Extensions          ProtocolExtensionContainer { {USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
  ...
}
```

```
USCH-ModifyItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

USCH-AddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-AddItem-RL-ReconfPrepTDD

```
USCH-AddItem-RL-ReconfPrepTDD ::= SEQUENCE {
  uSCH-ID                USCH-ID,
  ul-ccTrCHID            CCTrCH-ID,
  trChSourceStatisticsDescriptor  TrCH-SrcStatisticsDescr,
  transportFormatSet     TransportFormatSet,
  allocationRetentionPriority  AllocationRetentionPriority,
  schedulingPriorityIndicator  SchedulingPriorityIndicator,
  bLER                   BLER,
  rb-Info                RB-Info,
  iE-Extensions          ProtocolExtensionContainer { {USCH-AddItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
  ...
}
```

```
USCH-AddItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```

USCH-DeleteList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE(0..maxNoOfUSCHs)) OF USCH-DeleteItem-RL-ReconfPrepTDD

```
USCH-DeleteItem-RL-ReconfPrepTDD ::= SEQUENCE {
  uSCH-ID                USCH-ID,
  iE-Extensions          ProtocolExtensionContainer { {USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs} } OPTIONAL,
  ...
}
```

```
USCH-DeleteItem-RL-ReconfPrepTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}
```



```
RadioLinkReconfigurationPrepareTDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {  
    ...  
}
```

```

-- *****
--
-- RADIO LINK RECONFIGURATION REQUEST FDD
--
-- *****

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

RadioLinkReconfigurationRequestFDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-AllowedQueuingTime          CRITICALITY reject TYPE AllowedQueuingTime          PRESENCE optional } |
    { ID id-UL-DPCH-Information-RL-ReconfRqstFDD          CRITICALITY reject TYPE UL-DPCH-Information-RL-ReconfRqstFDD PRESENCE optional } |
    { ID id-DL-DPCH-Information-RL-ReconfRqstFDD          CRITICALITY reject TYPE DL-DPCH-Information-RL-ReconfRqstFDD PRESENCE optional } |
    { ID id-DCH-ModifyList-RL-ReconfRqstFDD          CRITICALITY reject TYPE DCH-ModifyList-RL-ReconfRqstFDD          PRESENCE optional } |
    { ID id-DCH-AddList-RL-ReconfRqstFDD          CRITICALITY reject TYPE DCH-AddList-RL-ReconfRqstFDD          PRESENCE optional } |
    { ID id-DCH-DeleteList-RL-ReconfRqstFDD          CRITICALITY reject TYPE DCH-DeleteList-RL-ReconfRqstFDD          PRESENCE optional } |
    { ID id-Transmission-Gap-Pattern-Sequence-Information          CRITICALITY reject TYPE Transmission-Gap-Pattern-Sequence-Information PRESENCE optional
},
    ...
}

UL-DPCH-Information-RL-ReconfRqstFDD ::= SEQUENCE {
    tFCS                        TFCS          OPTIONAL,
    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                        TFCS          OPTIONAL,
    tFCI-SignallingMode         TFCI-SignallingMode OPTIONAL,
    limitedPowerIncrease        LimitedPowerIncrease OPTIONAL,
    iE-Extensions               ProtocolExtensionContainer { {DL-DPCH-Information-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
    ...
}

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

DCH-ModifyList-RL-ReconfRqstFDD          ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfRqstFDD

DCH-ModifyItem-RL-ReconfRqstFDD ::= SEQUENCE {
    ul-FP-Mode                  UL-FP-Mode,
    toAWS                       ToAWS,
    toAWE                       ToAWE,
}

```

```

transportBearerRequestIndicator      TransportBearerRequestIndicator,
dCH-SpecificInformationList            DCH-ModifySpecificInformationList-RL-ReconfRqstFDD,
iE-Extensions                          ProtocolExtensionContainer { {DCH-ModifyItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
...
}

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

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

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

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

DCH-AddList-RL-ReconfRqstFDD          ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRqstFDD

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

DCH-AddItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

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

DCH-AddSpecificItem-RL-ReconfRqstFDD ::= 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,
iE-Extensions                   ProtocolExtensionContainer { {DCH-AddSpecificItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
...
}

DCH-AddSpecificItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

DCH-DeleteList-RL-ReconfRqstFDD          ::= SEQUENCE (SIZE (0..maxNrOfDCHs)) OF DCH-DeleteItem-RL-ReconfRqstFDD

DCH-DeleteItem-RL-ReconfRqstFDD ::= SEQUENCE {
dCH-ID                               DCH-ID,
iE-Extensions                       ProtocolExtensionContainer { {DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs} } OPTIONAL,
...
}

DCH-DeleteItem-RL-ReconfRqstFDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

RadioLinkReconfigurationRequestFDD-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
...
}

-- *****
--
-- RADIO LINK RECONFIGURATION REQUEST TDD
--
-- *****

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

RadioLinkReconfigurationRequestTDD-IEs RNSAP-PROTOCOL-IES ::= {
{ ID id-AllowedQueuingTime            CRITICALITY reject  TYPE AllowedQueuingTime            PRESENCE optional } |
{ ID id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD  CRITICALITY notify  TYPE UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD  PRESENCE optional } |
{ ID id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD CRITICALITY notify  TYPE UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD  PRESENCE optional } |
{ ID id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD CRITICALITY notify  TYPE DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD  PRESENCE optional } |
{ ID id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD CRITICALITY notify  TYPE DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD  PRESENCE optional } |
{ ID id-DCH-ModifyList-RL-ReconfRqstTDD  CRITICALITY reject  TYPE DCH-ModifyList-RL-ReconfRqstTDD  PRESENCE optional } |
{ ID id-DCH-AddList-RL-ReconfRqstTDD     CRITICALITY reject  TYPE DCH-AddList-RL-ReconfRqstTDD     PRESENCE optional } |

```

```

    { ID id-DCH-DeleteList-RL-ReconfRqstTDD      CRITICALITY reject  TYPE DCH-DeleteList-RL-ReconfRqstTDD      PRESENCE optional },
    ...
}

UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= CCTrCH-IE-ContainerList0 { {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          CCTrCH-ID,
    tFCS              TFCS,
    iE-Extensions     ProtocolExtensionContainer { {UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

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

UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= CCTrCH-IE-ContainerList0 { {UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs} }

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

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

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

DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD ::= CCTrCH-IE-ContainerList0 { {DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD-IEs} }

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

DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD ::= SEQUENCE {
    cCTrCH-ID          CCTrCH-ID,
    tFCS              TFCS,

```

```

    iE-Extensions          ProtocolExtensionContainer { {DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

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

DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD ::= CCTrCH-IE-ContainerList0 { {DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs} }

DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD    CRITICALITY notify    TYPE DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD    PRESENCE
mandatory    },
    ...
}

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

DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-ModifyList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-ModifyItem-RL-ReconfRqstTDD

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

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

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

DCH-ModifySpecificItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dCH-ID          DCH-ID,
    ul-CCTrCH-ID    CCTrCH-ID    OPTIONAL,
    dl-CCTrCH-ID    CCTrCH-ID    OPTIONAL,
    ul-TransportformatSet    TransportFormatSet    OPTIONAL,
    dl-TransportformatSet    TransportFormatSet    OPTIONAL,
    allocationRetentionPriority    AllocationRetentionPriority    OPTIONAL,
    frameHandlingPriority    FrameHandlingPriority    OPTIONAL,

```

```

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

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

DCH-AddList-RL-ReconfRqstTDD ::= SEQUENCE (SIZE(0..maxNrOfDCHs)) OF DCH-AddItem-RL-ReconfRqstTDD

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

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

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

DCH-AddSpecificItem-RL-ReconfRqstTDD ::= SEQUENCE {
    dCH-ID                          DCH-ID,
    trCH-SrcStatisticsDescr         TrCH-SrcStatisticsDescr,
    ul-CCTrCH-ID                   CCTrCH-ID,
    dl-CCTrCH-ID                   CCTrCH-ID,
    ul-TransportformatSet          TransportFormatSet,
    dl-TransportformatSet          TransportFormatSet,
    ul-BLER                        BLER,
    dl-BLER                        BLER,
    allocationRetentionPriority     AllocationRetentionPriority,
    frameHandlingPriority           FrameHandlingPriority,
    qE-Selector                    QE-Selector OPTIONAL,
    -- This IE is present only if DCH is part of set of Coordinated DCHs
    iE-Extensions                  ProtocolExtensionContainer { {DCH-AddSpecificItem-RL-ReconfRqstTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-AddSpecificItem-RL-ReconfRqstTDD-ExtIEs 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 ::= {  
} ...
```



<b>CHANGE REQUEST</b>				Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.	
<b>25.423</b>		<b>CR</b>		<b>212 R1</b>	
GSM (AA.BB) or 3G (AA.BBB) specification number ↑		↑ CR number as allocated by MCC support team		Current Version: <b>3.3.0</b>	
For submission to: <b>TSG RAN #10</b>		for approval <input checked="" type="checkbox"/>		strategic <input type="checkbox"/>	
list expected approval meeting # here ↑		for information <input type="checkbox"/>		non-strategic <input type="checkbox"/> (for SMG use only)	

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

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

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

**Subject:** Explanation of cause values

**Work item:**

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

**Reason for change:**

**R1:**  
Following comments received during R3#16 are taken into account:

- 2 columns Temp/Perm were removed;
- Cell not available: rephrased to “concerning cell”. General change of “indicated” to “concerning”;
- General description added that “not supported” means the capability is not present, and that “not available” means that the capability is supported but currently insufficient resources were present to perform the requested action;
- Common transport channel type: clarified that it concerns “RACH/FACH/CPCH”;
- Transport resource resources unavailable: meaning changed to “transport resources are not available”;
- Measurement not supported: meaning changed to “At least one of the concerning cells does not support the measurement on the indicated object type”;

**R0:**  
In the last meeting, Ericsson took the action point of introducing a clarification table for explaining the different cause values. This is the resulting CR for RNSAP.

For all cause values, an explanation on when to use this value is provided. In those cases where text in the unsuccessfull procedure case only included this same information, the text in the procedure text is proposed to be removed.

The following cause values are proposed to be removed:

- Transport link failure, Transmission port not available: currently 3 very similar cause values exist: it is proposed to only use the remaining cause value: transport

resources unavailable.

- Transaction not allowed: assumed to have the same meaning as the cause value: Message not compatible with receiver state.

For alignment purposes (with NBAP), the following cause values are added:

- combining not supported
- RL already activated/allocated

As a general principle:

- permanent failures (“not supported”) are put on cell level: it is not useful to try the same request again on the same cell without any operations and maintenance intervention. However, another cell might support the requested functionality.
- temporary failures (“not available”) are put on node level: this makes sure that the requester can make no assumptions on when the resources should become available (e.g. could be when resources are freed in another cell).

If this CR is not approved, implementations could misinterpret cause values.

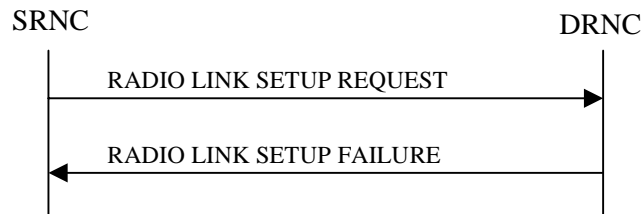
**Clauses affected:** 8.3.1.3; 8.3.2.3; 8.3.4.3; 8.3.7.3; 8.4.1.3; 9.2.1.5; 9.3.3.

**Other specs affected:**

Other 3G core specifications	X	→ List of CRs:
Other GSM core specifications		→ List of CRs:
MS test specifications		→ List of CRs:
BSS test specifications		→ List of CRs:
O&M specifications		→ List of CRs:

**Other comments:**

### 8.3.1.3 Unsuccessful Operation



**Figure 1: Radio Link Setup procedure: Unsuccessful Operation**

In unsuccessful case (i.e. one or more RLS can not be setup) 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 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 the DRNS cannot support the requested number of DL Codes on a permanent basis, the DRNS shall regard the Radio Link Setup procedure as failed and shall respond with the RADIO LINK SETUP FAILURE message with the cause value "Number of DL Codes Not Supported".]

Typical cause values are:

#### Radio Network Layer Causes:

- RL Already Activated/Allocated
- [FDD - UL Scrambling Code Already in Use];
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Unknown C-ID;
- [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;
- Invalid CM Settings;
- Number of DL 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.

**Transport Layer Causes:**

- ~~Transport Link Failure~~Transport Resource Unavailable

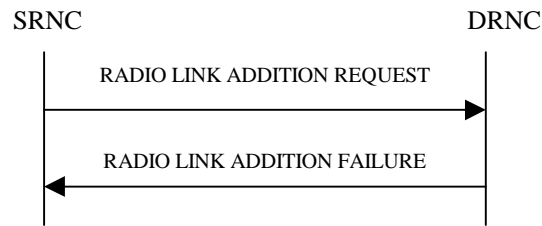
**Protocol Causes:**

- ~~Transaction not Allowed~~

**Miscellaneous Causes:**

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

### 8.3.2.3 Unsuccessful Operation



**Figure 2: 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 CM measurements, or if the *Transmission Gap Pattern Sequence Status IE* group repetitions in the *Active Pattern Sequence Information IE* do 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 terminate the on going compressed mode measurement in the new RLs (as specified above), but at least one new RL is setup in one cell that has the same UARCFN of 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". ]

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

~~[FDD – If the DRNS cannot support the requested number of DL Codes on a permanent basis, the DRNS shall regard the Radio Link Setup procedure as failed and shall respond with the RADIO LINK ADDITION FAILURE message with the cause value "Number of DL Codes Not Supported".]~~

Typical cause values are:

#### Radio Network Layer Causes:

- RL Already Activated/Allocated
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Unknown C-ID;
- Combining Resources not Availableavailable;
- Combining not Supported
- Cell not Available;
- [FDD - Requested Tx Diversity Mode not Supported];
- Power Level not Supported;
- Invalid CM Settings;
- CM not Supported;
- Reconfiguration CFN not Elapsedelapsed;
- Number of DL Codescodes not Supportedsupported.

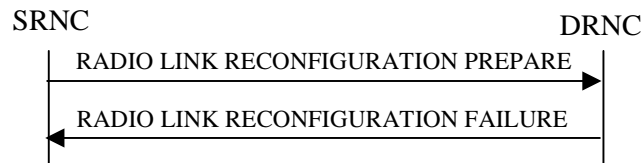
**Transport Layer Causes:**

~~—Transport Link Failure~~Transport Resource Unavailable

**Miscellaneous Causes:**

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

### 8.3.4.3 Unsuccessful Operation



**Figure 3: 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 procedure as having failed.

If the requested Synchronised Radio Link Reconfiguration 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.

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 shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

~~In which cases to include only the Cause IE on message level and in which cases the Cause IE also shall be included for a specific RL is FFS.~~

~~[FDD – If the DRNS cannot support the requested number of DL Codes on a permanent basis, the DRNS shall regard the Radio Link Setup procedure as failed and shall respond with the RADIO LINK RECONFIGURATION FAILURE message with the cause value "Number of DL Codes Not Supported".]~~

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;
- Invalid CM Settings;
- Number of DL ~~Codes codes~~-not ~~Supported~~supported;
- ~~[TDD – Dedicated Transport Channel H 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.

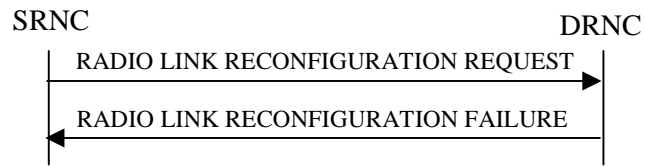
#### Protocol Causes:

- ~~Transaction not Allowed.~~

#### Miscellaneous Causes:

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

### 8.3.7.3 Unsuccessful Operation



**Figure 4: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation**

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 shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

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;
- Invalid CM Setting;
- CM not Supported.

#### Protocol Causes:

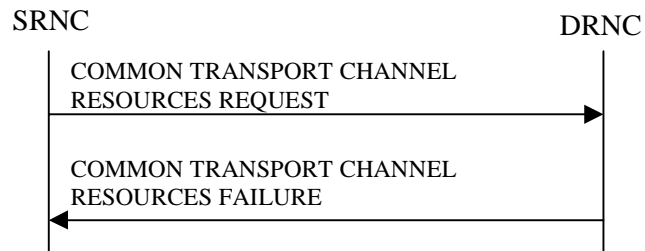
- ~~— Transaction not Allowed.~~

#### Miscellaneous Causes:

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



## 8.4.1.3 Unsuccessful Operation

**Figure 5: 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.

Typical cause values are:

**Radio Network Layer Causes:**

- RACH/FACH/CPCH-Common Transport Channel Type not Supported.

### 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 <i>cause group</i>				
> <i>Radio Network Layer</i>				
>>Radio Network Layer Cause	M		ENUMERATED (Unknown C-ID, Cell not Available, Power Level not Supported, UL Scrambling Code Already in Use, DL Radio Resources not Available, UL Radio Resources not Available, <u>RL Already Activated/Allocated</u> , Measurement not Supported For The Object, Combining Resources Not Available, <u>Combining not Supported</u> , Reconfiguration not Allowed, Requested Configuration not Supported, Synchronisation Failure, Requested Tx Diversity Mode not Supported, Measurement Temporarily not Available, Unspecified, Invalid CM Settings, Reconfiguration CFN not <u>Elapsedelapsed</u> , Number of DL Codes Not Supported, <u>Dedicated Transport ChHannel Type</u> not Supported, <u>DL Shared ChHannel Type</u> not Supported, <u>UL Shared ChHannel Type</u> not Supported, <u>RACH/FACH/CPCHCommon Transport Channel Type</u> not Supported, UL Spreading Factor not Supported, DL Spreading Factor not Supported, CM not Supported, Transaction not Supported by Destination Node B, ...)	
> <i>Transport Layer</i>				
>>Transport Layer Cause	M		ENUMERATED ( <u>Transport Link Failure</u> , <u>Transmission Port not Available</u> , <u>Transport Resource Unavailable</u> , Unspecified, ...)	
> <i>Protocol</i>				
>>Protocol Cause			ENUMERATED ( <u>Transaction not Allowed</u> , 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),...)	
> <i>Misc</i>				
>>Miscellaneous Cause	M		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.

<b>Radio Network Layer cause</b>	<b>Meaning</b>
<u>Cell not Available</u>	<u>The concerning cell is not available</u>
<u>Combining not Supported</u>	<u>The DRNS does not support the RL combining for the concerning cells</u>
<u>Combining Resources Not Available</u>	<u>The value of the received <i>Diversity Control Field IE</i> was set to 'Must', but the DRNS cannot perform the requested combining</u>
<u>CM not Supported</u>	<u>The concerning cell(s) do not support Compressed Mode</u>
<u>Common Transport Channel Type not Supported</u>	<u>The concerning cell(s) do not support the RACH and/or FACH and/or CPCH Common Transport Channel Type</u>
<u>Dedicated Transport Channel Type not Supported</u>	<u>The concerning cell(s) do not support the Dedicated Transport Channel Type</u>
<u>DL Radio Resources not Available</u>	<u>The DRNS does not have sufficient DL radio resources available</u>
<u>DL SF not Supported</u>	<u>The concerning cell(s) do not support the requested DL SF</u>
<u>DL Shared Channel Type not Supported</u>	<u>The concerning cell(s) do not support the Downlink Shared Channel Type</u>
<u>Invalid CM Settings</u>	<u>The concerning cell(s) consider the requested Compressed Mode settings invalid</u>
<u>Measurement not Supported For The Object</u>	<u>At least one of the concerning cell(s) does not support the requested measurement on the concerning object type</u>
<u>Measurement Temporarily not Available</u>	<u>The DRNS can temporarily not provide the requested measurement value</u>
<u>Number of DL Codes not Supported</u>	<u>The concerning cell(s) do not support the requested number of DL codes</u>
<u>Power Level not Supported</u>	<u>A DL power level was requested which the concerning cell(s) do not support</u>
<u>Reconfiguration CFN not Elapsed</u>	<u>The requested action cannot be performed due to that a COMMIT message was received previously, but the concerning CFN has not yet elapsed</u>
<u>Reconfiguration not Allowed</u>	<u>The SRNC does currently not allow the requested reconfiguration</u>
<u>Requested Configuration not Supported</u>	<u>The concerning cell(s) do not support the requested configuration i.e. power levels, Transport Formats, physical channel parameters,.....</u>
<u>Requested Tx Diversity mode not Supported</u>	<u>The concerning cell(s) do not support the requested transmit diversity mode</u>
<u>RL Already Activated/ Allocated</u>	<u>The DRNS has already allocated an RL with the requested RL ID for this UE Context</u>
<u>Synchronisation Failure</u>	<u>Loss of UL Uu synchronisation</u>
<u>Transaction not Supported by Destination Node B</u>	<u>The requested action cannot be performed due to lack of support of the corresponding action in the destination Node B</u>
<u>UL Radio Resources not Available</u>	<u>The DRNS does not have sufficient UL radio resources available</u>
<u>UL Scrambling Code Already in Use</u>	<u>The concerning UL scrambling code is already in use for another UE</u>
<u>UL SF not Supported</u>	<u>The concerning cell(s) do not support the requested UL SF</u>
<u>UL Shared Channel Type not Supported</u>	<u>The concerning cell(s) do not support the Uplink Shared Channel Type</u>
<u>Unknown C-ID</u>	<u>The DRNS is not aware of a cell with the provided C-Id</u>
<u>Unspecified</u>	<u>Sent when none of the above cause values applies but still the cause is Radio Network Layer related</u>

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

<b>Protocol cause</b>	<b>Meaning</b>
-----------------------	----------------

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

<u>Miscellaneous cause</u>	<u>Meaning</u>
<u>Control Processing Overload</u>	<u>DRNS control processing overload</u>
<u>Hardware Failure</u>	<u>DRNS hardware failure</u>
<u>Not enough User Plane Processing Resources</u>	<u>DRNS has insufficient user plane processing resources available</u>
<u>O&amp;M Intervention</u>	<u>Operation and Maintenance intervention related to DRNS equipment</u>
<u>Unspecified</u>	<u>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.</u>

```

-- 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 {
transaction-not-allowed,
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
    ...
}

CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-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-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,
raeh-faeh-epehcommon-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-allocated,
    ...
}

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

```

// partly skipped

<b>CHANGE REQUEST</b>				<i>Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.</i>	
<b>25.423</b>		<b>CR 213</b>		Current Version: <b>3.3.0</b>	
<small>GSM (AA.BB) or 3G (AA.BBB) specification number ↑</small>		<small>↑ CR number as allocated by MCC support team</small>			
For submission to:	<b>TSG-RAN#10</b>	for approval	<input checked="" type="checkbox"/>	strategic	<input type="checkbox"/>
<small>list expected approval meeting # here ↑</small>		for information	<input type="checkbox"/>	non-strategic	<input type="checkbox"/>
					<small>(for SMG use only)</small>

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

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

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

**Subject:** Handling of optional IE's in RNSAP RL\_SETUP / RL\_ADDITION

**Work item:**

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

**Reason for change:** During R3#15, Ericsson took an action point related to clarifying the (currently unclear) handling of optional IE's in the RNSAP RL\_SETUP/ RL\_ADDITION. This contribution is the output of this activity.

Main input was Tdoc 2292, which listed the following optional IE's:

**SETUP:**

- D-RNTI: clarification included (descriptive paragraph removed)
- Uplink SIR Target: currently included
- SSdT cell identity length: currently included
- DSCH information: clarification added
- Propagation delay: new paragraph added

**SETUP RESPONSE:**

- CN domain indicators: clarified "only if not DRNC"
- Cell individual offset: clarified "if available"

**ADDITION:**

- Primary CPICH/CCPCH power: currently included
- CN domain indicators: currently included
- Cell individual offset: clarified "if available"

Futhermore, Tdoc 2292 listed the following issues:

- 1) RADIO LINK SETUP: The TDD radio link setup procedure refers to a DL TX power level being (possibly) received, but no such IE is present in the RADIO LINK SETUP REQUEST message => Option removed in procedure text.
- 2) The DSCH text is currently tagged TDD – why ? => Seems incorrect: tagging removed.
- 3) The neighbour cell information group in the TDD RADIO LINK SETUP RESPONSE

message incorrectly has a presence indicator => Removed.

- 4) The neighbour cell information group in the FDD RADIO LINK FAILURE message incorrectly has a presence indicator => Removed.
- 5) RADIO LINK ADDITION: The procedure text describes the PRIMARY CCPCH Ec/No IE in the FDD RADIO LINK ADDITION REQUEST message and the message contains PRIMARY CPICH Ec/No => Corrected to CPICH.

If this contribution is not accepted, the indicated corrections will remain erroneous leading to incorrect implementations.

**Clauses affected:** 8.3.1; 8.3.2; 9.1.4.2; 9.1.5.1

**Other specs affected:**

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

**Other comments:**

It is further recognised that the procedure text description would benefit from a “re-shuffling” as is already performed for other procedures like the NBAP RL Reconfiguration.



help.doc

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



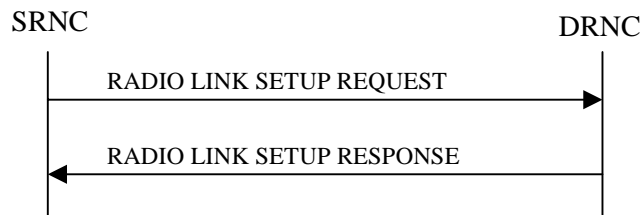
## 8.3.1 Radio Link Setup

### 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 1: 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 RRC connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request setup of the radio link(s).

The message includes the S-RNTI associated to the UE, and, if the UE context is already present in the DRNC, the corresponding D-RNTI. 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.

[FDD - The *First RLS Indicator* IE indicates if the concerning RL shall be considered part of the first RLS established towards this UE. If the *First RLS indicator* IE is set to "first RLS", the DRNS shall use a TPC pattern of  $n \cdot "01" + "1"$  in the DL of the concerning RL and all RLs which are part of the same RLS, until UL synchronisation is achieved on the Uu. The TPC pattern shall continuously be repeated but shall be restarted at the beginning of every frame with  $CFN \bmod 4 = 0$ . For all other RLs, the DRNS shall use a TPC pattern of all "1"s in the DL until UL synchronisation is achieved on the Uu.]

[FDD - The *Diversity Control Field* IE indicates for each RL except 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.]

[FDD - If the *Propagation Delay* IE is included, the DRNS may use this information to speed up the detection of L1 synchronisation.]

If the RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request before providing a response to the SRNC.

[FDD - If the *Initial DL TX Power* IE and *Uplink SIR Target* IE are present 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 constraints 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.]

[FDD - If the *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 *DL Timeslot ISCP* IE are present, the DRNC should use the indicated values when deciding the Initial DL TX Power.]

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

[FDD – The DRNS shall start the 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 for the concerning RLS or a DL POWER CONTROL REQUEST message is received. No innerloop 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) with DPC\_MODE=0 and the power control procedure (see 8.3.7).]

[TDD – The DRNS shall start the DL transmission using ~~the indicated DL TX power level (if received)~~ or the decided DL TX power level on each DL channelisation code and on each Time Slot of a RL until UL synchronisation is achieved for the concerning 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). ]

If the RADIO LINK SETUP REQUEST message includes a *DCH Info* IE with multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCH Info* 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 *Allocation/Retention Priority* IE defines the priority level that should be used by the DRNS to prioritise the allocation and the retention of the resources used by the DCH. The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise the discard/delay of the data frames of the DCH and DSCH (if any).

The DRNS shall use the included *UL DCH FP Mode* IE for a DCH or a set of co-ordinated DCHs as the new 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 new 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 new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity* 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 *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the information about the Transmission Gap Pattern Sequences to be used when those are activated.]

[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 immediately activate the indicated Transmission Gap Pattern Sequences: for each sequence the *TGCFN* refers to latest passed CFN with that value. If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in ref. [26].]

[TDD – The DRNS shall use the *RB Identity* IE list inside the USCH information group to map each *RB Identity* IE to the corresponding USCH.]

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 setup.

~~[TDD –]~~ If the DSCH Information is included in the RADIO LINK SETUP REQUEST message, the DRNC shall establish the requested DSCH's [FDD - on the RL indicated by the PDSCH RL ID IE]. In addition, the DRNC shall send a valid set of *Scheduling Priority* IE and *MAC-c/sh SDU lengths* IE parameters to the SRNC in the message RADIO LINK SETUP RESPONSE message.

[FDD - If the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not present in the RADIO LINK SETUP REQUEST message, then DRNC shall include the determined initial Uplink SIR Target in the RADIO LINK SETUP RESPONSE message.]

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

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the 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 - In the case of combining one or more RLs the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message with the *Diversity Indication* that the RL is combined with another 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 be included for all but one 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 [TDD – and USCH] of the RL.]

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

[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.]

~~For any cell neighbouring a cell in which a RL was established, the DRNS shall also provide the SRNC with the UTRAN Cell Identifier (UC-Id), the Frequency Number, the [FDD-Primary Scrambling Code], the [TDD-Cell Parameter ID, the Sync Case, the SCH Time Slot information, the Block STTD Indicator] of the neighbouring cells to the cell(s) where the radio link(s) are added and the node identification of the CN nodes connected to the RNC controlling the neighbouring cell if the neighbouring cell is not controlled by the DRNC.~~ In addition, if the information is available, the DRNC shall also provide the [FDD-CPICH Power level, cell individual offset]/[TDD-PCCPCH Power level, DPCH Constant Value] and Frame Offset of the neighbouring cell.

If a neighbouring cell is controlled by another RNC, the DRNC shall report also the node identifications (i.e. RNC and CN domain nodes) of the RNC controlling the neighbouring cell. [FDD – If the information is available, the DRNC shall include the *Tx Diversity Indicator* IE and Tx diversity capability (i.e. *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE, and *Closed Loop Mode2 Support Indicator* IE) in *Per FDD Cell Information* IE].

~~If there was no *D-RNTI* IE was included in UE context for this UE in the DRNS before the RADIO LINK SETUP REQUEST message, was received 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 *DRAC Control* IE is set to "requested" in the RADIO LINK SETUP REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message the *Secondary CCPCH Info* IE to be received on FACH, for each added Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK SETUP RESPONSE message.]

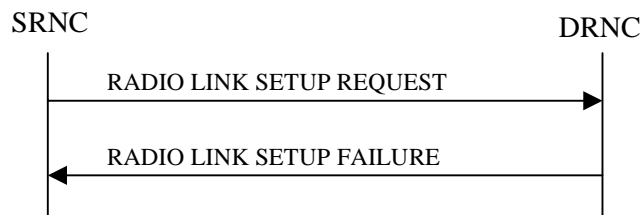
Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell and the UTRAN access point position for each of the established RLs in the RADIO LINK SETUP RESPONSE message.

After sending of the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The DRNS shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [3].

[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 Indication* IE].

[FDD- If the *Downlink compressed mode method* in one or more Transmission Gap Pattern Sequence is set to 'SF/2' in the RADIO LINK SETUP REQUEST message, the DRNS shall include the *Transmission Gap Pattern Sequence Information Response* IE in the RADIO LINK SETUP RESPONSE message indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

### 8.3.1.3 Unsuccessful Operation



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

In unsuccessful case (i.e. one or more RLs can not be setup) 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 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 the DRNS cannot support the requested number of DL Codes on a permanent basis, the DRNS shall regard the Radio Link Setup procedure as failed and shall respond with the RADIO LINK SETUP FAILURE message with the cause value "Number of DL Codes Not Supported".]

Typical cause values are:

#### Radio Network Layer Causes:

- [FDD - UL Scrambling Code Already in Use];
- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Unknown C-ID;
- [FDD - Combining Resources not available];
- Requested Configuration not Supported;
- Cell not Available;
- [FDD - Requested Tx Diversity Mode not Supported];
- Power Level not Supported;
- Invalid CM Settings;
- Number of DL codes not supported;
- DCH not Supported;

- DSCH not Supported;
- [TDD - USCH not Supported];
- [FDD - UL Spreading Factor not Supported];
- [FDD - DL Spreading Factor not Supported];
- CM not Supported.

#### Transport Layer Causes:

- Transport Link Failure

#### Protocol Causes:

- Transaction not Allowed

#### 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.

## 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.

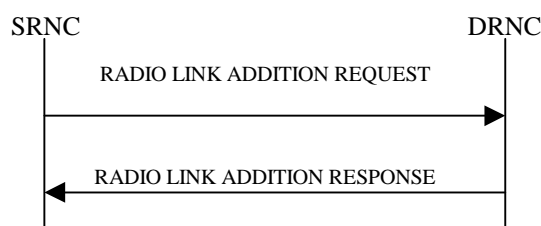
This procedure shall use the signalling bearer connection for the relevant UE context.

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 3: 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 *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.

[FDD - If the *Primary CPICH Ec/No* IE measured by the UE is included in the RADIO LINK ADDITION REQUEST message, the DRNS shall use this in the calculation of the Initial DL TX Power. If the *Primary CPICH Ec/No* IE is not present, the DRNS sets the Initial DL TX Power accordingly to the power used by the existing RLs.]

[TDD - If the *Primary CCPCH RSCP* IE and/or the *DL Timeslot ISCP* 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 *DL Timeslot ISCP* IE are not present, the DRNS sets the Initial DL TX Power accordingly to the power used by the existing RLs.]

[FDD - The Initial DL TX Power shall be applied until UL synchronisation is achieved for that RLS or a DL POWER CONTROL REQUEST message is received. No innerloop 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) with DPC\_MODE=0 and the power control procedure (see 8.3.7)].

[TDD - The Initial DL TX Power shall be applied until UL synchronisation is achieved 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 - The DRNS shall use the provided Uplink SIR Target value as the current target for the inner-loop power control.]

[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.]

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

[FDD - If the RADIO LINK ADDITION REQUEST message includes the *Active Pattern Sequence Information* IE, the DRNS shall use the information to immediately activate all ongoing Transmission Gap Pattern Sequence(s) also in the new RL. For each sequence the *TGCFN* refers to latest passed CFN with that value. If *Active Pattern Sequence Information* IE is not included, the DRNS shall not activate the on going CM pattern in the new RLs, but the on going pattern in the existing RL are maintained.]

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

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

[FDD - For each RL not having a common generation of the TPC commands in the DL with another RL, the 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.]

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 that the RL is combined. In this case the Reference RL ID shall be included to indicate one of the existing RLs that the new RL is combined with.

In the case of not combining an RL with existing RL(s), the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message with the Diversity Indication 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, DSCH [TDD - and USCH] of the RL in the RADIO LINK ADDITION RESPONSE message.



In case of coordinated DCH, the *Binding ID IE* and the *Transport Layer Address IE* shall be included for only one of the co-ordinated DCHs.

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

[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.]

For any cell neighbouring of a cell in which a RL was added, the DRNC shall provide in the RADIO LINK ADDITION RESPONSE message the UTRAN Cell Identifier (UC-Id), the Frequency Number, the [FDD - Primary Scrambling Code], the [TDD – Cell Parameter Id, the Sync Case, the SCH Time slot information, the Block STTD Indicator] and the node identification of CN nodes connected to the RNC controlling the neighbouring cell if the neighbouring cell is not controlled by the DRNC. In addition, if the information is available, the DRNC shall also provide the [FDD- *Primary CPICH Power IE*, *Cell Individual Offset IE*]/[TDD - *PCCPCH Power IE*, *DPCH Constant Value IE*], *Frame Offset IE*, [FDD – *Tx Diversity Indicator IE*, and Tx diversity capability, i.e. *STTD Support Indicator IE*, *Closed Loop Mode1 Support Indicator IE*, and *Closed Loop Mode2 Support Indicator IE*] of the neighbouring cell.

The DRNC shall also provide the configured uplink 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 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.

[FDD - If some Transmission Gap Pattern sequences using SF/2 method are initialised in the DRNS, DRNS shall include the *Transmission Gap Pattern Sequence Information Response IE* in the RADIO LINK ADDITION RESPONSE message to indicate the Scrambling code change method that it selects for each channelisation code]

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell and the UTRAN access point position for each of the added RLs in the RADIO LINK SETUP RESPONSE message.

After sending of the RADIO LINK ADDITION RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The DRNS shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [4].

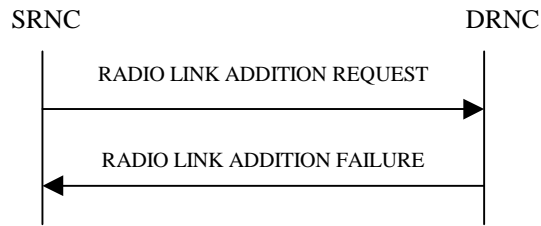
[FDD - If the UE has been allocated one or several DCH controlled by DRAC (*DRAC Control IE* was set to "requested" in the RADIO LINK ADDITION REQUEST message for at least one DCH) and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK ADDITION RESPONSE message the *Secondary CCPCH Info IE* to be received on FACH, for each added Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK ADDITION RESPONSE message.]

[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 Indication IE*.]

[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* and the already known diversity mode.]

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

### 8.3.2.3 Unsuccessful Operation



**Figure 4: 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 CM measurements, or if the *Transmission Gap Pattern Sequence Status* IE group repetitions in the *Active Pattern Sequence Information* IE do 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 terminate the on going compressed mode measurement in the new RLs (as specified above), but at least one new RL is setup in one cell that has the same UARCFN of 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". ]

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

[FDD - If the DRNS cannot support the requested number of DL Codes on a permanent basis, the DRNS shall regard the Radio Link Setup procedure as failed and shall respond with the RADIO LINK ADDITION FAILURE message with the cause value "Number of DL Codes Not Supported".]

Typical cause values are:

#### Radio Network Layer Causes:

- DL Radio Resources not Available;
- UL Radio Resources not Available;
- Unknown C-ID;
- Combining Resources not available ;
- Cell not Available;
- [FDD - Requested Tx Diversity Mode not Supported];
- Power Level not Supported;
- Invalid CM Settings;
- CM not Supported;
- Reconfiguration CFN not elapsed;
- Number of DL codes not supported.

#### Transport Layer Causes:



- Transport Link Failure.

**Miscellaneous Causes:**

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

**8.3.2.4 Abnormal Conditions**

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## 9.1.4.2 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		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
<b>RL Information Response</b>		1			YES	ignore
>RL ID	M		9.2.1.49		–	
>URA ID	M		9.2.1.70		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O				–	
>UTRAN Access Point Position	O				–	
<b>&gt;UL Interference per Time Slot</b>		1 .. <maxnoof ULts>		Interference Level for each UL time slot within the Radio Link	–	
>>Time Slot	M		9.2.1.56		–	
>>UL Timeslot ISCP	M		9.2.3.13A		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.2.10		–	
>Minimum DL TX Power	M		DL Power 9.2.2.10		–	
>Timing Adjustment Required	M		9.2.3.12A		–	
<b>&gt;UL CCTrCH Information</b>		0..<maxno ofCCTrCHs>		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
<b>&gt;&gt;UL DPCH Information</b>		0..1			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
<b>&gt;&gt;&gt;UL Timeslot Information</b>		1 to <maxnoOf TS			–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift and Burst Type	M		9.2.3.4		–	
>>>>TFCI Presence	M		9.2.1.55		–	
<b>&gt;&gt;&gt;&gt;UL Code Information</b>		1 to <maxnoOf DPCH>			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code	M		9.2.3.8		–	
<b>&gt;DL CCTrCH Information</b>		0..<maxno ofCCTrCHs>		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
<b>&gt;&gt;DL DPCH Information</b>		0..1			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>TDD DPCH Offset	M		9.2.3.x		–	
>>>DL Timeslot Information		1 to <maxnoOf TS>			–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift and Burst Type	M		9.2.3.4		–	
>>>>TFCI Presence	M		9.2.1.55		–	
>>>>DL Code Information		1 to <maxnoOf DPCH>			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code	M		9.2.3.8		–	
>DCH Information Response		1..<maxno ofDCHs>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M		9.2.1.16		–	
>>Binding ID	M		9.2.1.3		–	
>>Transport Layer Address	M		9.2.1.62		–	
>DSCH Information Response		0 .. <Maxnoof DSCHs>			GLOBAL	ignore
>>DSCH ID	M				–	
>>Priority Indicator		1..16		Provide Information for each priority class used	–	
>>>Scheduling Priority Indicator	M			For DSCH	–	
>>>>MAC-c/sh SDU Length		1..<MaxNb MAC-c/shSDUL ength>			–	
>>>>>MAC-c/sh SDU Length	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>>Transport Format Management	M				–	
>USCH Information Response		0 .. <Maxnoof USCHs>			GLOBAL	ignore
>>USCH ID	M				–	
>>Binding ID	M				–	
>>Transport Layer Address	M				–	
>>Transport Format Management	M				–	
>Neighbouring Cell Information	⊖	0..<maxno ofneighbouringRNCs>			EACH	ignore
>>RNC-Id	M		9.2.1.50		–	
>>CN PS Domain Identifier	O		9.2.1.12		–	
>>CN CS Domain Identifier	O		9.2.1.11		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
<b>&gt;&gt;Per FDD Cell Information</b>		<i>0..&lt;maxno ofFDDneighours&gt;</i>				
>>>C-Id	M		9.2.1.6		–	
>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	–	
>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]	–	
>>>Frame Offset	O		9.2.1.30		–	
>>>Primary Scrambling Code	M		9.2.1.45		–	
>>>Cell Individual Offset	O		9.2.1.7		–	
>>>Primary CPICH Power	O		9.2.1.44		–	
>>>Tx Diversity Indicator	M		9.2.2.50			
>>>STTD Support Indicator	O		9.2.2.45		–	
>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2		–	
>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3		–	
<b>&gt;&gt;Per TDD Cell Information</b>		<i>0..&lt;maxno ofTDDneighours&gt;</i>			–	
>>>C-Id	M		9.2.1.6		–	
>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	–	
>>>Frame Offset	O		9.2.1.30		–	
>>>Cell Parameter ID	M		9.2.1.8		–	
>>>Sync Case	M		9.2.1.54		–	
>>>Time Slot	C-Case1		9.2.1.56		–	
>>>SCH Time Slot	C-Case2		9.2.1.51		–	
>>>Block STTD Indicator	M				–	
>>>Cell Individual Offset	O		9.2.1.7		–	
>>>DPCH Constant Value	O		9.2.1.23		–	
>>>PCCPCH Power	O		9.2.1.43		–	
Uplink SIR Target	M		Uplink SIR 9.2.1.69		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.

Range bound	Explanation
MaxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofUSCHs	Maximum number of USCHs for one UE.
MaxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell
MaxnoofTDDneighbours	Maximum number of neighbouring TDD cell for one cell
MaxnoofCCTrCHs	Maximum number of CCTrCH for one UE.
MaxnoofULts	Maximum number of Uplink time slots per Radio Link
MaxnoofTS	Maximum number of Timeslots for a UE

## 9.1.5.1 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		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
CHOICE <i>cause level</i>						
> <i>General</i>					Yes	ignore
>>Cause	M					
> <i>RL specific</i>					Yes	ignore
>>Unsuccessful RL Information Response		1...<maxno ofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
>>Successful RL Information Response		0..<maxno ofRLs-1>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>RL Set ID	M		9.2.2.35		–	
>>>URA ID	M		9.2.1.70		–	
>>>SAI	M		9.2.1.52		–	
>>>RSSI	M		9.2.2.35A		–	
>>>DL Code Information		1..<maxno ofDL Codes			GLOBAL	ignore
>>>>DL Scrambling Code	M		9.2.2.8		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>Transmission Gap Pattern Sequence Information Response	O		9.2.2.47B		–	
>>>Diversity Indication	M		9.2.2.7		–	
>>>CHOICE <i>diversity Indication</i>					–	
>>>> <i>Combining</i>					YES	ignore
>>>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	–	
>>>> <i>Non Combining First RL</i>					YES	ignore
>>>>>DCH Information Response		0..<maxno ofDCHs>		Only one DCH per set of co-ordinated DCHs shall be included.	–	
>>>>>>DCH ID	M		9.2.1.16		–	
>>>>>>Binding ID	M		9.2.1.3		–	
>>>>>>Transport Layer Address	M		9.2.1.62		–	
>>>SSDT Support Indicator	M		9.2.2.43		–	
>>>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Closed loop timing adjustment mode	O				–	
>>>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>>>Maximum DL TX	M		DL Power		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Power			9.2.2.10			
>>>Minimum DL TX Power	M		DL Power 9.2.2.10		–	
>>>DSCH Information Response		0..<maxno of DSCHs>			GLOBAL	ignore
>>>>DSCH ID	M				–	
>>>>Binding ID	M				–	
>>>>Transport Layer Address	M				–	
>>>>Neighbouring Cell Information	⊕	0..<maxno of neighbourin gRNCs>			EACH	ignore
>>>>RNC-Id	M		9.2.1.50		–	
>>>>CN PS Domain Identifier	O		9.2.1.12		–	
>>>>CN CS Domain Identifier	O		9.2.1.11		–	
>>>>Per FDD Cell Information		0..<maxno of FDDneig hbours>			–	
>>>>>C-Id	M		9.2.1.6		–	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	–	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]	–	
>>>>>Frame Offset	O		9.2.1.30		–	
>>>>>Primary Scrambling Code	M		9.2.1.45		–	
>>>>>Primary CPICH Power	O		9.2.1.44		–	
>>>>>Cell Individual Offset	O		9.2.1.7		–	
>>>>>Tx Diversity Indicator	M		9.2.2.50		–	
>>>>>STTD Support Indicator	O		9.2.2.45		–	
>>>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2		–	
>>>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3		–	
>>>>>Per TDD Cell Information		0..<maxno of TDDneig hbours>			–	
>>>>>C-Id	M		9.2.1.6		–	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	–	
>>>>>Frame Offset	O		9.2.1.30		–	
>>>>>Cell Parameter ID	M		9.2.1.8		–	
>>>>>Sync Case	M		9.2.1.54		–	
>>>>>Time Slot	C-Case1		9.2.1.56		–	
>>>>>SCH Time Slot	C-Case2		9.2.1.51		–	
>>>>>Block STTD Indicator	M				–	
>>>>>Cell Individual Offset	O		9.2.1.7		–	
>>>>>DPCH Constant Value	O		9.2.1.23		–	
>>>>>PCCPCH	O		9.2.1.43		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Power						
Uplink SIR Target	O		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell
MaxnoofTDDneighbours	Maximum number of neighbouring TDD cell for one cell



## CHANGE REQUEST

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

**25.423 CR 214r4**

Current Version: **3.3.0**

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

↑ CR number as allocated by MCC support team

For submission to: **TSG RAN #10** for approval   
list expected approval meeting # here ↑ for information

strategic  (for SMG use only)  
non-strategic

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

**Proposed change affects:**

(at least one should be marked with an X)

(U)SIM  ME  UTRAN / Radio  Core Network

**Source:** R-WG3

**Date:** November 2000

**Subject:** CFN in measurement reporting

**Work item:**

**Category:**

(only one category shall be marked with an X)

F Correction   
A Corresponds to a correction in an earlier release   
B Addition of feature   
C Functional modification of feature   
D Editorial modification

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

**Reason for change:**

In 25.423 the reporting of CFN in the dedicated measurement reports are optional. It is currently not clear when the CFN shall be reported. Also the CFN included in the measurement report is related to the measurement report itself and not the actual reported value, i.e. in the case when multiple measurement values are reported in one measurement report currently only one CFN is reported. This CR will clarify these issues.

More over, Common and Dedicated Measurements need to specify and/or request the CFN/SFN that a measurement is taken in. This is currently missing from the Request messages, and text needs to be added to describe the optionality.

Minor changes: the note in the semantics description of Transaction Id in Ded. Meas. Init. Resp. is removed; "first working assumption" is also removed from the Report Characteristics IE.

**R4: in 9.3.4 an erroneous space was removed.**

**Clauses affected:**

8.3.11, 9.1.28, 9.1.29, 9.1.31, 9.2.1.48, 9.2.1.x (new), 9.3.3, 9.3.4, 9.3.6

**Other specs affected:**

Other 3G core specifications	<input checked="" type="checkbox"/>	→ List of CRs:	TS 25.433 CR264r2
Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:	
MS test specifications	<input type="checkbox"/>	→ List of CRs:	
BSS test specifications	<input type="checkbox"/>	→ List of CRs:	
O&M specifications	<input type="checkbox"/>	→ List of CRs:	

**Other comments:**

## 8.3.11 Measurement Initiation

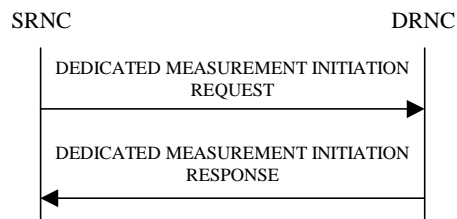
### 8.3.11.1 General

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

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

The 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 1: 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 measurement according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

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

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

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.

[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 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 measurement shall be performed.

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 a 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 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 DRNC shall use the value zero for the hysteresis time.

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

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

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

If the *Report Characteristics* IE is set to 'Event E', the DRNS shall initiate a Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). The DRNS shall also initiate a Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (Report B). If the *Report Periodicity* IE is provided, the DRNS shall initiate Measurement Reporting procedures periodically, with the requested frequency, between Report A and Report B. 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 a Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). The DRNS shall also initiate a Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (Report B). If the *Report Periodicity* IE is provided, the DRNS shall initiate Measurement Reporting procedures periodically, with the requested frequency, between Report A and Report B. 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 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 a Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

#### Higher layer filtering

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows:

$F_n$  is the updated filtered measurement result

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

$M_n$  is the latest received measurement result from physical layer measurements

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

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

#### Response message

If the 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 measurement request.

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 request message.

## 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		–	
Measurement Id	M		9.2.1.37		YES	reject
Dedicated Measurement Object Type	M		9.2.1.17		YES	reject
CHOICE <i>Dedicated Measurement Object Type</i>					YES	ignore
>"RL"					YES	reject
>>RL Information		1..<maxnoofRLs>			EACH	reject
>>>RL-ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
>"RLS"				FDD only	YES	reject
>>RL Set Information		1..<maxnoofRLSets>			EACH	reject
>>>RL-Set-ID	M		9.2.2.35		–	
Dedicated Measurement Type	M		9.2.1.18		YES	reject
Measurement Filter Coefficient	O		9.2.1.36		YES	reject
Report Characteristics	M		9.2.1.48		YES	reject
<u>CFN reporting indicator</u>	<u>M</u>		<u>FN reporting indicator 9.2.1.X</u>		<u>YES</u>	<u>reject</u>
<u>CFN</u>	<u>O</u>		<u>9.2.1.9</u>		<u>YES</u>	<u>reject</u>

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	M		9.2.1.59	Are both transaction id and Measurement id needed?	-	
Measurement Id	M		9.2.1.37		YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>"RL" or "ALL RL"					YES	ignore
>>RL Information		1..<maxno ofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.49		-	
>>>DPCH ID	O		9.2.3.3	TDD only	-	
>>>Dedicated Measurement Value	M		9.2.1.19		-	
>>>CFN	O		9.2.1.9	Dedicated Measurement Time Reference	-	
>"RLS" or "ALL RLS"				FDD only	YES	ignore
>>RL Set Information		1..<maxno ofRLSets>			EACH	ignore
>>>RL Set ID	M		9.2.2.35		-	
>>>Dedicated Measurement Value	M		9.2.1.19		-	
>>>CFN	O		9.2.1.9	Dedicated Measurement Time Reference	-	
CFN	O		9.2.1.9	Dedicated Measurement Time Reference	YES	ignore
Criticality Diagnostics	O		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	O		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	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
Measurement Id	M		9.2.1.37		YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>				Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
>"RL" or "ALL RL"					YES	ignore
>>RL Information		1..<maxnoofRLs>			EACH	ignore
>>>RL-ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
>>>CHOICE <i>Measurement Availability Indicator</i>						
>>>>"Measurement Available"					YES	ignore
>>>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>>>CFN	<u>O</u>		9.2.1.9	Dedicated Measurement Time Reference	–	
>>>>>"Measurement not Available"		NULL			YES	ignore
>"RLS" or "ALL RLS"				FDD only	YES	ignore
>>RL Set Information		1..<maxnoofRLSets>			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>CHOICE <i>Measurement Availability Indicator</i>						
>>>>"Measurement Available"					YES	ignore
>>>>>Dedicated Measurement Value	M		9.2.1.19		–	
>>>>>CFN	<u>O</u>		9.2.1.9	Dedicated Measurement Time Reference	–	
>>>>>"Measurement not Available"		NULL				
CFN	<u>O</u>		9.2.1.9	Dedicated Measurement Time Reference	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.

#### 9.2.1.48 Report Characteristics

The Report Characteristics, defines how the reporting shall be performed.

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



IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
>>Measurement Threshold 2	O		Measurement Threshold	
>>Measurement Hysteresis Time	O		ENUMERATED (10ms...1min, ...) step 10ms,...	The hysteresis time in ms
>>Report Periodicity	O		ENUMERATED (10ms...1min, ...) step 10ms, (1min...1hr, ...) step 1min,...	The periodicity with which the DRNS shall send measurement reports.
>Event F	C – Event F			
>>Measurement Threshold 1	M		Measurement Threshold	
>>Measurement Threshold 2	O		Measurement Threshold	
>>Measurement Hysteresis Time	O		ENUMERATED (10ms...1min, ...) step 10ms,...	The hysteresis time in ms
>>Report Periodicity	O		ENUMERATED (10ms...1min, ...) step 10ms, (1min...1hr, ...) step 1min,...	The periodicity with which the DRNS shall send measurement reports.

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

9.2.1.X FN reporting indicator

Frame Number reporting indicator.

Indicates if the CFN shall be included together with the reported measurement value.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>FN reporting indicator</u>			<u>ENUMERATED(FN reporting required, FN reporting not required)</u>	

### 9.3.3 PDU Definitions

```
-- *****
--
-- PDU definitions for RNSAP.
--
-- *****

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

IMPORTS
  Active-Pattern-Sequence-Information,
  AllocationRetentionPriority,
  AllowedQueuingTime,
  BLER,
  Block-STTD-Indicator,
  BindingID,
  C-ID,
  C-RNTI,
  CCTrCH-ID,
  CellIndividualOffset,
  CFN,
  ClosedLoopModel-SupportIndicator,
  ClosedLoopMode2-SupportIndicator,
  ClosedloopTimingadjustmentmode,
  CN-CS-DomainIdentifier,
  CN-PS-DomainIdentifier,
  Cause,
  CellParameterID,
  ChipOffset,
  CriticalityDiagnostics,
  D-RNTI,
  D-RNTI-ReleaseIndication,
  DCH-ID,
  DL-DPCH-SlotFormat,
  DL-TimeslotISCP,
  DL-Power,
  DL-ScramblingCode,
```

DPCHConstantValue,  
DPCH-ID,  
DRACControl,  
DRXCycleLengthCoefficient,  
DedicatedMeasurementType,  
DedicatedMeasurementValue,  
DiversityControlField,  
DiversityMode,  
DSCH-ID,  
FACH-InitialWindowSize,  
SchedulingPriorityIndicator,  
FDD-DL-ChannelisationCodeNumber,  
FDD-S-CCPCH-Offset,  
FDD-TPC-DownlinkStepSize,  
FirstRLS-Indicator,  
FNReportingIndicator,  
FrameHandlingPriority,  
FrameOffset,  
GA-AccessPointPosition,  
GA-Cell,  
IB-SG-POS,  
IB-SG-REP,  
IMSI,  
L3-Information,  
LimitedPowerIncrease,  
MAC-c-sh-SDU-Length,  
MaximumAllowedULTxPower,  
MaxNrDLPhysicalchannels,  
MaxNrOfUL-DPCHs,  
MaxNrTimeslots,  
MaxNrULPhysicalchannels,  
MeasurementFilterCoefficient,  
MeasurementID,  
MidambleShiftAndBurstType,  
MinimumSpreadingFactor,  
MinUL-ChannelisationCodeLength,  
MultipleURAsIndicator,  
MultiplexingPosition,  
NrOfDLchannelisationcodes,  
PDSCHCodeMapping,  
PayloadCRC-PresenceIndicator,  
PCCPCH-Power,  
PowerAdjustmentType,  
PowerOffset,  
PRACH-Midamble,  
PRACH-MinimumSpreadingFactor,  
PreambleSignatures,  
PrimaryCCPCH-RSCP,  
PrimaryCPICH-EcNo,  
PrimaryCPICH-Power,  
PrimaryScramblingCode,  
PropagationDelay,

PunctureLimit,  
QE-Selector,  
RACH-SubChannelNumbers,  
RANAP-RelocationInformation,  
RB-Identity,  
RL-ID,  
RL-Set-ID,  
RNC-ID,  
RepetitionLength,  
RepetitionPeriod,  
ReportCharacteristics,  
RSSI,  
S-FieldLength,  
S-RNTI,  
SCH-TimeSlot,  
SAI,  
SN,  
SSDT-CellID,  
SSDT-CellID-Length,  
SSDT-Indication,  
SSDT-SupportIndicator,  
STTD-Indicator,  
STTD-SupportIndicator,  
AdjustmentPeriod,  
ScaledAdjustmentRatio,  
MaxAdjustmentStep,  
ScramblingCodeNumber,  
SecondaryCCPCH-SlotFormat,  
SyncCase,  
TDD-ChannelisationCode,  
TDD-DPCHOffset,  
TDD-PhysicalChannelOffset,  
TDD-TPC-DownlinkStepSize,  
TFCI-Coding,  
TFCI-Presence,  
TFCI-SignallingMode,  
TimeSlot,  
TimingAdjustmentRequired,  
ToAWE,  
ToAWS,  
TransmitDiversityIndicator,  
TransportBearerID,  
TransportBearerRequestIndicator,  
TFCS,  
Transmission-Gap-Pattern-Sequence-Information,  
Transmission-Gap-Pattern-Sequence-Information-Response,  
TransportFormatManagement,  
TransportFormatSet,  
TransportLayerAddress,  
TrCH-SrcStatisticsDescr,  
TxDiversityIndicator,  
UARFCN,

```
UC-ID,  
UL-DPCCH-SlotFormat,  
UL-SIR,  
UL-FP-Mode,  
UL-ScramblingCode,  
UL-TimeslotISCP,  
URA-ID,  
USCH-ID  
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,  
maxNoOfRB,  
maxNoOfUSCHs,  
maxNrOfCCTrCHs,  
maxNrOfDCHs,  
maxNrOfTS,  
maxNrOfDL-Codes,  
maxNrOfDPCHs,  
maxNrOfMACcshSDU-Length,  
maxNrOfRLs,  
maxNrOfRLSets,  
maxNrOfRLs-1,  
maxNrOfRLs-2,  
maxNrOfSCCPCHs,  
maxNrOfULTs,  
maxNrOfDLTs,  
maxRNCinURA-1,  
maxNrOfNeighbouringRNCs,  
maxNrOfFDDNeighboursPerRNC,  
maxNrOfTDDNeighboursPerRNC,  
maxFACHCountPlus1,  
maxIBSEG,
```

```
id-Active-Pattern-Sequence-Information,  
id-AdjustmentRatio,  
id-All-RLItem-DM-Rqst,  
id-All-RLItem-Set-DM-Rqst,  
id-AllowedQueuingTime,  
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,

-----TEXT HAS BEEN OMITTED-----





```

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

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

DedicatedMeasurementInitiationRequest-IEs RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementID          CRITICALITY reject TYPE MeasurementID          PRESENCE mandatory } |
    { ID id-DedicatedMeasurementObjectType-DM-Rqst CRITICALITY ignore TYPE DedicatedMeasurementObjectType-DM-Rqst 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-Rqst,
    allRL             All-RL-DM-Rqst,
    allRLS            All-RL-Set-DM-Rqst,
    ...
}

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

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

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

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

RL-InformationList-DM-Rqst ::= RL-IE-ContainerList1 { {RL-Information-DM-Rqst-IEs} }

```

```

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

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

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

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

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

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

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

RL-Set-InformationList-DM-Rqst          ::= RL-Set-IE-ContainerList { {RL-Set-Information-DM-Rqst-IEs} }

RL-Set-Information-DM-Rqst-IEs RNSAP-PROTOCOL-IES ::= {
  { ID id-RL-Set-InformationItem-DM-Rqst      CRITICALITY ignore  TYPE RL-Set-InformationItem-DM-Rqst      PRESENCE mandatory  },
  ...
}

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

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

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

All-RLIE-DM-Rqst RNSAP-PROTOCOL-IES ::= {

```

```

    { ID id-All-RLItem-DM-Rqst    CRITICALITY ignore TYPE All-RLItem-DM-Rqst    PRESENCE mandatory }
}

All-RLItem-DM-Rqst ::= NULL

All-RL-Set-DM-Rqst ::= ProtocolIE-Single-Container {{ All-RLIE-Set-DM-Rqst }}

All-RLIE-Set-DM-Rqst RNSAP-PROTOCOL-IES ::= {
    { ID id-All-RLItem-Set-DM-Rqst    CRITICALITY ignore    TYPE    All-RLItem-Set-DM-Rqst    PRESENCE mandatory }
}

All-RLItem-Set-DM-Rqst ::= NULL

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

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

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

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

DedicatedMeasurementObjectType-DM-Rsp ::= CHOICE {
    rLs                RL-DM-Rsp,
    rLS                RL-Set-DM-Rsp,
    allRL              RL-DM-Rsp,
    allRLS             RL-Set-DM-Rsp,
    ...
}

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

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

RLItem-DM-Rsp ::= SEQUENCE {

```

```

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

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

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

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

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

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

RL-InformationList-DM-Rsp          ::= RL-IE-ContainerList1 { {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                          RL-ID,
    dPCH-ID                        DPCH-ID                        OPTIONAL,
    dedicatedMeasurementValue      DedicatedMeasurementValue,
    CFN                            CFN                            OPTIONAL,
    iE-Extensions                  ProtocolExtensionContainer { {RL-InformationItem-DM-Rsp-ExtIEs} } OPTIONAL,
    ...
}

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

RL-Set-InformationList-DM-Rsp      ::= RL-Set-IE-ContainerList { {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                      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 {
    protocolIEs                ProtocolIE-Container    {{DedicatedMeasurementInitiationFailure-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{DedicatedMeasurementInitiationFailure-Extensions}}
    ...
}

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 {
    protocolIEs                ProtocolIE-Container    {{DedicatedMeasurementReport-IEs}},
    protocolExtensions          ProtocolExtensionContainer {{DedicatedMeasurementReport-Extensions}}
    ...
}

```

```

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 } +
  { ID id-CFN          CRITICALITY ignore TYPE CFN          PRESENCE optional },
  ...
}

DedicatedMeasurementObjectType-DM-Rprt ::= CHOICE {
  rLs          RL-DM-Rprt,
  rLS          RL-Set-DM-Rprt,
  allRL        RL-DM-Rprt,
  allRLS       RL-Set-DM-Rprt,
  ...
}

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

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

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

RLItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

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

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

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

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

RL-InformationList-DM-Rprt          ::= RL-IE-ContainerList1 { {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                RL-ID,
    dPCH-ID              DPCH-ID          OPTIONAL,
    measurementAvailabilityIndicator MeasurementAvailabilityIndicator-DedicatedMeasurementReport,
    iE-Extensions        ProtocolExtensionContainer { {RL-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}
RL-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
RL-Set-InformationList-DM-Rprt          ::= RL-Set-IE-ContainerList { {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                RL-Set-ID,
    measurementAvailabilityIndicator MeasurementAvailabilityIndicator-DedicatedMeasurementReport,
    iE-Extensions            ProtocolExtensionContainer { {RL-Set-InformationItem-DM-Rprt-ExtIEs} } OPTIONAL,
    ...
}
RL-Set-InformationItem-DM-Rprt-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}
MeasurementAvailabilityIndicator-DedicatedMeasurementReport ::= CHOICE {
    measurementAvailable        MeasurementAvailable-DedicatedMeasurementReport,
    measurementnotAvailable     MeasurementnotAvailable-DedicatedMeasurementReport,
    ...
}
MeasurementAvailable-DedicatedMeasurementReport ::= ProtocolIE-Single-Container {{ MeasurementAvailableIE-DedicatedMeasurementReport }}
MeasurementAvailableIE-DedicatedMeasurementReport RNSAP-PROTOCOL-IES ::= {
    { ID id-MeasurementAvailableItem-DedicatedMeasurementReport CRITICALITY ignore TYPE MeasurementAvailableItem-DedicatedMeasurementReport
    PRESENCE mandatory}
}
MeasurementAvailableItem-DedicatedMeasurementReport ::= SEQUENCE {
    dedicatedmeasurementValue    DedicatedMeasurementValue,
    cfN                          CFN                                OPTIONAL,
    ie-Extensions                 ProtocolExtensionContainer { { MeasurementAvailableItem-DedicatedMeasurementReport-ExtTIEs} } OPTIONAL,
    ...
}

```

```
MeasurementAvailableItem-DedicatedMeasurementReport-EXTIEs RNSAP-PROTOCOL-EXTENSION ::= {  
    ...  
}  
MeasurementnotAvailable-DedicatedMeasurementReport ::= ProtocolIE-Single-Container {{ MeasurementnotAvailableIE-DedicatedMeasurementReport }}  
  
MeasurementnotAvailableIE-DedicatedMeasurementReport RNSAP-PROTOCOL-IES ::= {  
    { ID id-MeasurementnotAvailableItem-DedicatedMeasurementReport CRITICALITY ignore TYPE MeasurementnotAvailableItem-DedicatedMeasurementReport  
      PRESENCE mandatory}  
}  
  
MeasurementnotAvailableItem-DedicatedMeasurementReport ::= NULL  
  
DedicatedMeasurementReport-Extensions RNSAP-PROTOCOL-EXTENSION ::= {  
    ...  
}
```

-----TEXT HAS BEEN OMITTED-----





## 9.3.4 Information Element Definitions

-----TEXT HAS BEEN OMITTED-----

```
-- F

FACH-InitialWindowSize      ::= INTEGER { unlimited(255) } (0..255)
-- Number of frames MAC-c-sh SDUs.
-- 255 = Unlimited number of FACH data frames

FDD-DL-ChannelisationCodeNumber ::= INTEGER (0..511)
-- According to the mapping in [27]. The maximum value is equal to the DL spreading factor -1--

FDD-S-CCPCH-Offset         ::= INTEGER (0..149)

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

FrameHandlingPriority      ::= INTEGER { lowest(0), highest(15) } (0..15)

FrameOffset                ::= INTEGER (0..255)
-- Frames
```

### 9.3.6 Constant Definitions

```

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

RNSAP-Constants {
itu-t (0) identified-organization (4) etsi (0) mobileDomain (0)
umts-Access (20) modules (3) rnsap (1) version1 (1) rnsap-Constants (4) }

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

id-commonTransportChannelResourcesInitiationFDD          INTEGER ::= 0
id-commonTransportChannelResourcesInitiationTDD          INTEGER ::= 1
id-commonTransportChannelResourcesRelease                INTEGER ::= 2
id-compressedModeCommandFDD                             INTEGER ::= 4
id-downlinkPowerControl                                 INTEGER ::= 6
id-downlinkSignallingTransfer                           INTEGER ::= 7
id-errorIndication                                      INTEGER ::= 8
id-measurementFailure                                   INTEGER ::= 9
id-measurementInitiation                                INTEGER ::= 10
id-measurementReporting                                 INTEGER ::= 11
id-measurementTermination                               INTEGER ::= 12
id-pagingRequest                                        INTEGER ::= 13
id-physicalChannelReconfiguration                       INTEGER ::= 14
id-privateMessage                                       INTEGER ::= 15
id-radioLinkAddition                                   INTEGER ::= 16
id-radioLinkDeletion                                   INTEGER ::= 17
id-radioLinkFailure                                     INTEGER ::= 18
id-radioLinkRestoration                                 INTEGER ::= 19
id-radioLinkSetup                                       INTEGER ::= 20
id-srnsRelocationCommit                                INTEGER ::= 21
id-synchronisedRadioLinkReconfigurationCancellation     INTEGER ::= 22
id-synchronisedRadioLinkReconfigurationCommit          INTEGER ::= 23
id-synchronisedRadioLinkReconfigurationPrepare         INTEGER ::= 24
id-unSynchronisedRadioLinkReconfiguration              INTEGER ::= 25
id-uplinkSignallingTransferFDD                          INTEGER ::= 26
id-uplinkSignallingTransferTDD                          INTEGER ::= 27

```

```

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

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

-- *****
--
-- Lists
--
-- *****

maxCodeNumComp-1            INTEGER ::= 255
maxRateMatching             INTEGER ::= 256
maxNoCodeGroups             INTEGER ::= 256
maxNoOfDSCHs                INTEGER ::= 10
maxNoOfRB                   INTEGER ::= 32
maxNoOfUSCHs                INTEGER ::= 10
maxNoTFCIGroups            INTEGER ::= 256
maxNrOfTFCs                 INTEGER ::= 1024
maxNrOfTFs                  INTEGER ::= 32
maxNrOfCCTrCHs             INTEGER ::= 16
maxNrOfDCHs                 INTEGER ::= 128
maxNrOfDL-Codes            INTEGER ::= 8
maxNrOfDPCHs                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
maxNrOfSCCPCHs             INTEGER ::= 10
maxNrOfULTs                 INTEGER ::= 15
maxNrOfDLTs                 INTEGER ::= 15
maxRNCinURA-1             INTEGER ::= 15
maxTTI-Count                INTEGER ::= 4
maxCTFC                     INTEGER ::= 16777215
maxNrOfNeighbouringRNCs    INTEGER ::= 10
maxNrOfFDDNeighboursPerRNC INTEGER ::= 256
maxNrOfTDDNeighboursPerRNC INTEGER ::= 256
maxFACHCountPlus1          INTEGER ::= 10
maxIBSEG                    INTEGER ::= 16
maxTFCI1Combs               INTEGER ::= 512
maxTFCI2Combs               INTEGER ::= 1024
maxTFCI2Combs-1            INTEGER ::= 1023
maxTGPS                     INTEGER ::= 6

```

```
maxNrOfTS                INTEGER ::= 15  
  
-- *****  
--  
-- IEs  
--  
-- *****
```

---TEXT HAS BEEN OMITTED---

id-CFNReportingIndicator INTEGER ::= xxx

## CHANGE REQUEST

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

**25.423**

**CR**

**216r2**

Current Version: **3.3.0**

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

↑ CR number as allocated by MCC support team

For submission to:

TSG  
RAN#10

for approval

strategic

list expected approval meeting # here ↑

for information

non-strategic

(for SMG use only)

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

**Proposed change affects:**

(at least one should be marked with an X)

(U)SIM

ME

UTRAN / Radio

Core Network

**Source:**

R-WG3

**Date:**

Nov. 2000

**Subject:**

Clarifications to Compressed Mode signalling.

**Work item:**

**Category:**

(only one category shall be marked with an X)

F Correction

A Corresponds to a correction in an earlier release

B Addition of feature

C Functional modification of feature

D Editorial modification

**Release:**

Phase 2

Release 96

Release 97

Release 98

Release 99

Release 00

**Reason for change:**

In the current specification it is not explicitly stated in the Compressed Mode Command procedure description that the procedure can be used also for deactivating ongoing compressed mode measurements without activating any new compressed mode configuration.

In addition the 'lifetime' of compressed mode configuration is clarified. Compressed mode configuration shall be valid until the next Compressed Mode Configuration is configured in the DRNS or UE Context is deleted.

With these two clarification it is possible to use COMPRESSED MODE COMMAND as triggering message to activate and deactivate the same compressed mode configuration without re-signalling the unchanged Transmission Gap Pattern Sequence parameters.

Revision 1 notes

Corrections to CM Configuration Change CFN rejected (no changes needed for chapters 9.2.2.A and 9.3.4).

Procedure name in table 3 corrected. The correct procedure name is Compressed Mode Command as used in procedural.

Unnecessary chapters where no corrections were addressed removed.

Revision 2 notes

Term UE context is replaced with the term last Radio Link, since it is not the intention to mandate the DRNS to maintain CM configuration also for UEs using Common Transport Channel resources. Changes are highlighted with yellow colour.

Consequences for not accepting this CR:

If this Cr is not accepted unchanged Transmission Gap Pattern Sequence parameters need to be re-signalled to DRNS when the same compressed mode configuration is

reactivated.

**Clauses affected:** 8.1, 8.3.1, 8.3.4, 8.3.7 and 8.3.16

<b>Other specs affected:</b>	Other 3G core specifications	<input checked="" type="checkbox"/>	→ List of CRs:	R3-002730/Cr268r1 in 25.433
	Other GSM core specifications	<input type="checkbox"/>	→ List of CRs:	
	MS test specifications	<input type="checkbox"/>	→ List of CRs:	
	BSS test specifications	<input type="checkbox"/>	→ List of CRs:	
	O&M specifications	<input type="checkbox"/>	→ List of CRs:	

**Other comments:**



help.doc

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



## 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 Procedure	Initiating Message	Successful Outcome	Unsuccessful Outcome	
		Response message	Response message	Timer
Radio Link Setup	RADIO LINK SETUP REQUEST	RADIO LINK SETUP RESPONSE	RADIO LINK SETUP FAILURE	
Radio Link Addition	RADIO LINK ADDITION REQUEST	RADIO LINK ADDITION RESPONSE	RADIO LINK ADDITION FAILURE	
Radio Link Deletion	RADIO LINK DELETION REQUEST	RADIO LINK DELETION RESPONSE		
Synchronised Radio Link Reconfiguration Preparation	RADIO LINK RECONFIGURATION PREPARE	RADIO LINK RECONFIGURATION READY	RADIO LINK RECONFIGURATION FAILURE	
Unsynchronised Radio Link Reconfiguration	RADIO LINK RECONFIGURATION REQUEST	RADIO LINK RECONFIGURATION RESPONSE	RADIO LINK RECONFIGURATION FAILURE	
Physical Channel Reconfiguration	PHYSICAL CHANNEL RECONFIGURATION REQUEST	PHYSICAL CHANNEL RECONFIGURATION COMMAND	PHYSICAL CHANNEL RECONFIGURATION FAILURE	
Measurement Initiation	DEDICATED MEASUREMENT INITIATION REQUEST	DEDICATED MEASUREMENT INITIATION RESPONSE	DEDICATED MEASUREMENT INITIATION FAILURE	
<del>Compressed Mode Preparation [FDD]</del>	<del>COMPRESSED MODE PREPARE</del>	<del>COMPRESSED MODE READY</del>	<del>COMPRESSED MODE FAILURE</del>	
Common Transport Channel Resources Initiation	COMMON TRANSPORT CHANNEL RESOURCES REQUEST	COMMON TRANSPORT CHANNEL RESOURCES RESPONSE	COMMON TRANSPORT CHANNEL RESOURCES FAILURE	

The need for Timers will be defined on a per procedure basis. The content of this column is thus FFS.

Table 3: Class 2

Elementary Procedure	Initiating Message
Uplink Signalling Transfer	UPLINK SIGNALLING TRANSFER INDICATION
Downlink Signalling Transfer	DOWNLINK SIGNALLING TRANSFER REQUEST
SRNS Relocation Commit	SRNS RELOCATION COMMIT
Paging	PAGING REQUEST
Synchronised Radio Link Reconfiguration Commit	RADIO LINK RECONFIGURATION COMMIT
Synchronised Radio Link Reconfiguration Cancellation	RADIO LINK RECONFIGURATION CANCEL
Radio Link Failure	RADIO LINK FAILURE INDICATION
Radio Link Restoration	RADIO LINK RESTORE INDICATION
Measurement Reporting	DEDICATED MEASUREMENT REPORT
Measurement Termination	DEDICATED MEASUREMENT TERMINATION REQUEST
Measurement Failure	DEDICATED MEASUREMENT FAILURE INDICATION
Downlink Power Control [FDD]	DL POWER CONTROL REQUEST
Compressed Mode Command# [FDD]	COMPRESSED MODE COMMAND#
<del>Compressed Mode Cancellation [FDD]</del>	<del>COMPRESSED MODE CANCEL</del>
Common Transport Channel Resources Release	COMMON TRANSPORT CHANNEL RESOURCES RELEASE REQUEST
Error Indication	ERROR INDICATION

## 8.3 DCH procedures

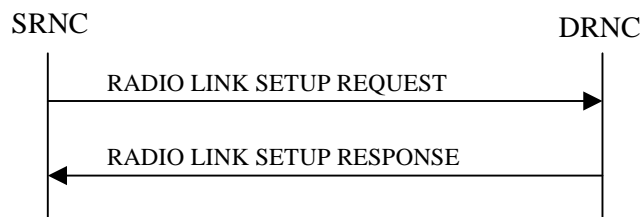
### 8.3.1 Radio Link Setup

#### 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 1: 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 RRC connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request setup of the radio link(s).

The message includes the S-RNTI associated to the UE, and, if the UE context is already present in the DRNC, the corresponding D-RNTI.

[FDD - The *First RLS Indicator* IE indicates if the concerning RL shall be considered part of the first RLS established towards this UE. If the *First RLS indicator* IE is set to "first RLS", the DRNS shall use a TPC pattern of  $n \cdot "01" + "1"$  in the DL of the concerning RL and all RLs which are part of the same RLS, until UL synchronisation is achieved on the Uu. The TPC pattern shall continuously be repeated but shall be restarted at the beginning of every frame with  $CFN \bmod 4 = 0$ . For all other RLs, the DRNS shall use a TPC pattern of all "1"s in the DL until UL synchronisation is achieved on the Uu.]

[FDD - The *Diversity Control Field* IE indicates for each RL except 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 RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request before providing a response to the SRNC.

[FDD - If the *Initial DL TX Power* IE and *Uplink SIR Target* IE are present 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 constraints 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.]

[FDD - If the *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 *DL Timeslot ISCP* IE are present, the DRNC should use the indicated values when deciding the Initial DL TX Power.]

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

[FDD – The DRNS shall start the 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 for the concerning RLS or a DL POWER CONTROL REQUEST message is received. No innerloop 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) with DPC\_MODE=0 and the power control procedure (see 8.3.7).]

[TDD – The DRNS shall start the DL transmission using the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code and on each Time Slot of a RL until UL synchronisation is achieved for the concerning 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). ]

If the RADIO LINK SETUP REQUEST message includes a *DCH Info* IE with multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCH Info* 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 *Allocation/Retention Priority* IE defines the priority level that should be used by the DRNS to prioritise the allocation and the retention of the resources used by the DCH. The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise the discard/delay of the data frames of the DCH and DSCH (if any).

The DRNS shall use the included *UL DCH FP Mode* IE for a DCH or a set of co-ordinated DCHs as the new 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 new 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 new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity* 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 *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.~~to be used when those are activated.~~]

[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 immediately activate the indicated Transmission Gap Pattern Sequences: for each sequence the *TGCFN* refers to latest passed CFN with that value. If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in ref. [26].]

[TDD – The DRNS shall use the *RB Identity* IE list inside the USCH information group to map each *RB Identity* IE to the corresponding USCH.]

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 setup.

[TDD –. If the DSCH Information is included in the RADIO LINK SETUP REQUEST message, the DRNC shall send a valid set of *Scheduling Priority* IE and *MAC-c/sh SDU lengths* IE parameters to the SRNC in the message RADIO LINK SETUP RESPONSE message].

[FDD - If the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not present in the RADIO LINK SETUP REQUEST message, then DRNC shall include the determined initial Uplink SIR Target in the RADIO LINK SETUP RESPONSE message.]

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

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the 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 - In the case of combining one or more RLs the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message with the Diversity Indication that the RL is combined with another 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 be included for all but one 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 [TDD – and USCH] of the RL.]

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

[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.]

The DRNS shall also provide the SRNC with the UTRAN Cell Identifier (UC-Id), the Frequency Number, the [FDD-Primary Scrambling Code], the [TDD-Cell Parameter ID, the Sync Case, the SCH Time Slot information, the Block STTD Indicator] of the neighbouring cells to the cell(s) where the radio link(s) are added. In addition, if the information is available, the DRNC shall also provide the [FDD-CPICH Power level]/[TDD-PCCPCH Power level, DPCH Constant Value] and Frame Offset of the neighbouring cell.

If a neighbouring cell is controlled by another RNC, the DRNC shall report also the node identifications (i.e. RNC and CN domain nodes) of the RNC controlling the neighbouring cell. [FDD – If the information is available, the DRNC shall include the *Tx Diversity Indicator* IE and Tx diversity capability (i.e. *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE, and *Closed Loop Mode2 Support Indicator* IE) in *Per FDD Cell Information* IE].

If there was no UE context for this UE in the DRNS before the RADIO LINK SETUP REQUEST message was received 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 *DRAC Control* IE is set to "requested" in the RADIO LINK SETUP REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message the *Secondary CCPCH Info* IE to be received on FACH, for each added Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK SETUP RESPONSE message.]

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell and the UTRAN access point position for each of the established RLs in the RADIO LINK SETUP RESPONSE message.

After sending of the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The DRNS shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [3].

[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 Indication* IE].

[FDD- If the *Downlink compressed mode method* in one or more Transmission Gap Pattern Sequence is set to 'SF/2' in the RADIO LINK SETUP REQUEST message, the DRNS shall include the *Transmission Gap Pattern Sequence Information Response* IE in the RADIO LINK SETUP RESPONSE message indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

## 8.3.4 Synchronised Radio Link Reconfiguration Preparation

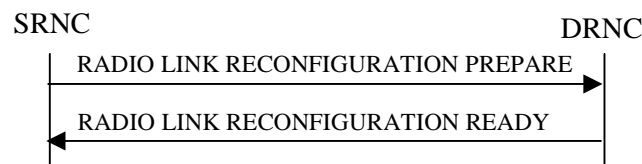
### 8.3.4.1 General

The Synchronised Radio Link Reconfiguration Preparation procedure is used to prepare a new configuration of all Radio Links 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 2: 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 before providing a response to the SRNC.

#### **DCH Modification:**

If the RADIO LINK RECONFIGURATION PREPARE message includes the *Allocation/Retention Priority* IE for a DCH to be modified, the DRNS should use this information when reserving resources for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION PREPARE message 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 RADIO LINK RECONFIGURATION PREPARE message 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 RADIO LINK RECONFIGURATION PREPARE message 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.

If the RADIO LINK RECONFIGURATION PREPARE message includes a *DCHs to Modify* IE with 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 RADIO LINK RECONFIGURATION PREPARE message includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the 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 RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWS* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the 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 RADIO LINK RECONFIGURATION PREPARE message includes the *ToAWE* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the DRNS shall apply the new ToAWE 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 present and set to "requested" in the RADIO LINK RECONFIGURATION PREPARE message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]

#### **DCH Addition:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be added to the Radio Link(s), 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 RADIO LINK RECONFIGURATION PREPARE message 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].]

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 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 the RADIO LINK RECONFIGURATION PREPARE message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION READY message the *Secondary CCPCH Info* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION READY message.]

#### **DCH Deletion:**

If the RADIO LINK RECONFIGURATION PREPARE message includes any DCH to be deleted from the Radio Link(s), the DRNS shall not include this DCH 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 the *Uplink Scrambling Code* IE, the DRNS shall apply this Uplink Scrambling Code to the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes one or more *Uplink Channelisation Code* IEs, the DRNS shall apply the new Uplink Channelisation Code(s) in the new configuration.]



[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes *Number of DL Channelisation Code 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, DRNS shall include the *Transmission Gap Pattern Sequence Information Response IE* in the RADIO LINK RECONFIGURATION READY message in case it 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  $p$ th to “*PhCH number p*”.]

[FDD - 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 - 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 RADIO LINK RECONFIGURATION PREPARE message includes on the *Diversity Mode IE*, the DRNS shall apply diversity according to the given value.]

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

FDD – If the RADIO LINK RECONFIGURATION PREPARE message 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 RADIO LINK RECONFIGURATION PREPARE message 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] section 5.2.1 for the inner loop DL power control in the new configuration.]

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

#### [TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes UL/DL CCTrCH to be modified and includes any of *TFCS IE*, *TFCI coding IE*, *Puncture limit IE*, or *TPC CCTrCH ID IEs* the DRNC 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 *Midamble shift and Burst Type IE*, *Time Slot IE*, *TFCI presence IE* or Code information was modified. The DRNC shall include code information if *TDD Channelisation Code IE* was modified.]

#### [TDD – UL/DL CCTrCH Addition]

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

[TDD – If the DRNC 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.]

#### [TDD – UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes any UL or DL CCTrCH to be deleted, the DRNC shall remove this CCTrCH in the new configuration.]

#### SSDT Activation/Deactivation:

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SSDT Indication* IE set to "SSDT Active in the UE", the DRNS shall activate SSDT, if supported, using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE in the new configuration.]

[FDD - If the RADIO LINK RECONFIGURATION PREPARE message includes the *SSDT Indication* IE set to "SSDT not Active in the UE", the DRNS shall deactivate SSDT in the new configuration.]

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.

In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur the *DCH Information Response* IE group 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 *DCH Information Response* IE group shall be included only for one of the combined Radio Links.

#### **Compressed Mode Preparation:**

[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* in one or more Transmission Gap Pattern Sequence within the *Transmission Gap Pattern Sequence Information* IE is set to 'SF/2', the DRNS shall include the *Transmission Gap Pattern Sequence Information Response* IE to the RADIO LINK RECONFIGURATION READY message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not].

#### **DSCH Addition/Modification/Deletion:**

The DRNC shall use any included DSCH information for the DSCHs to be added/modified/deleted in the RADIO LINK RECONFIGURATION PREPARE message, 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.

To add or modify each DSCH, 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 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.

The DRNS shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE of the DSCHs being added or modified.

#### **USCH Addition/Modification/Deletion [TDD]**

The DRNC shall use any included USCH information for the USCHs to be added/modified/deleted in the RADIO LINK RECONFIGURATION PREPARE message, 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.

To add or modify each USCH, 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 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.

The DRNS shall include in the RADIO LINK RECONFIGURATION READY message the *Transport Layer Address* IE and the *Binding ID* IE of the USCHs being added or modified.

## 8.3.7 Unsynchronised Radio Link Reconfiguration

### 8.3.7.1 General

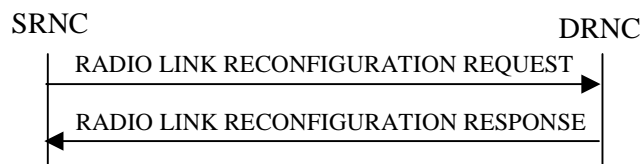
The Unsynchronised Radio Link Reconfiguration procedure is used to reconfigure Radio Link(s) related to one UE-UTRAN connection within a DRNS.

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 3: 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 before providing a response to the SRNC.

#### **DCH Modification:**

If the RADIO LINK RECONFIGURATION REQUEST message includes on the *Allocation/Retention Priority* IE for a DCH to be modified, the DRNS should use this new value when reserving resources for this DCH in the new configuration.

If the RADIO LINK RECONFIGURATION REQUEST message includes on 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 RADIO LINK RECONFIGURATION REQUEST message 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 RADIO LINK RECONFIGURATION REQUEST message 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 RADIO LINK RECONFIGURATION REQUEST message includes a *DCHs to Modify* IE with 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 RADIO LINK RECONFIGURATION REQUEST message includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs to be modified, the 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 RADIO LINK RECONFIGURATION REQUEST message includes the *ToAWS* IE for a DCH or a DCH which belongs to 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 RADIO LINK RECONFIGURATION REQUEST message includes the *ToAWE* IE for a DCH or a DCH which belongs to 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.

[FDD - If the *DRAC Control* IE is present and set to "requested" in the RADIO LINK RECONFIGURATION REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.]

#### **DCH Addition:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be added to the Radio Link(s), 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 RADIO LINK RECONFIGURATION REQUEST message 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 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].]

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 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 the RADIO LINK RECONFIGURATION REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK RECONFIGURATION RESPONSE message the *Secondary CCPCH Info* IE and the *Reference to System Information blocks* IE to be received on FACH, for each Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK RECONFIGURATION RESPONSE message.]

#### **DCH Deletion:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any DCH to be deleted from the Radio Link(s), the DRNS shall not include this DCH 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 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 the *TFCS* IE for the DL, the DRNS shall apply the new TFCS in the Downlink of the new configuration.]

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message 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] section 5.2.1 for the inner loop DL power control in the new configuration.]

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

#### [TDD - UL/DL CCTrCH Modification]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes UL/DL CCTrCH to be modified the DRNC shall apply the included *TFCS* IE as the new value.]

#### [TDD – UL/DL CCTrCH Deletion]

[TDD - If the RADIO LINK RECONFIGURATION REQUEST message includes any UL or DL CCTrCH to be deleted, the DRNC shall remove this CCTrCH in the new configuration.]

If the requested modifications are allowed by the DRNS, the DRNS has successfully allocated the required resources, and changed to the new configuration it 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 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 RESPONSE message.

In case of a set of co-ordinated DCHs requiring a new transport bearer on Iur the *DCH Information Response* IE group shall be included only for one of the DCH in the set of co-ordinated DCHs.

In case of a Radio Link being combined with another Radio Link within the DRNS the *DCH Information Response* IE group shall be included only for one of the combined Radio Links.

#### Compressed Mode Preparation:

[FDD - If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE the 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 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 DRNS shall include the *DL Code Information* IE group in the RADIO LINK RECONFIGURATION RESPONSE message indicating for each Channelisation Code whether the alternative scrambling code shall be used or not.]

## 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 4: Compressed Mode Command procedure, Successful Operation**

The DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences at the CM Configuration Change CFN 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 group repetitions (if present) shall be started when the indicated TGCFN elapses. The *CM Configuration Change CFN* in the *Active Pattern Sequence Information* IE and *TGCFN* for each sequence refers to the next coming CFN with that value.

If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in ref. [26].

### 8.3.16.3 Abnormal Conditions

-

<h2 style="margin: 0;">CHANGE REQUEST</h2>				<small>Please see embedded help file at the bottom of this page for instructions on how to fill in this form correctly.</small>	
<b>25.423</b>		<b>CR</b>		<b>217r1</b>	
<small>GSM (AA.BB) or 3G (AA.BBB) specification number ↑</small>		<small>Current Version: <b>3.3.0</b></small>			
<small>↑ CR number as allocated by MCC support team</small>					
For submission to:	<b>TSG</b>	for approval	<input checked="" type="checkbox"/>	strategic	<input type="checkbox"/>
	<b>RAN#10</b>		<input type="checkbox"/>		<input type="checkbox"/>
<small>list expected approval meeting # here ↑</small>		for information	<input type="checkbox"/>	non-strategic	<input type="checkbox"/>
					<small>(for SMG use only)</small>

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

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

**Source:**    R-WG3    **Date:**    Oct. 2000

**Subject:**    Handling of invalid patterns in Compressed Mode

**Work item:**    \_\_\_\_\_

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

**Reason for change:**    The current reference to TS 25.302 to describe DRNS behaviour during the compressed mode measurement in the case when two or more pattern sequences overlap is not adequate. In the TS 25.302 the requirement for NW is just to ensure that the compressed mode gaps do not overlap and are not scheduled to overlap the same frame.

Correction 1:  
It is proposed to delete the current description and to specify new one. Since the overlapping of one or more sequences during compressed mode measurement is expected to happen rarely (actually should not happen at all) it is proposed that DRNS shall send RADIO LINK FAILURE INDICATION message to notify the permanent failure in Radio Links or Radio Link Sets in this case.

Correction 2:  
Cause value 'Invalid CM settings' is removed from RL Setup-, Synchronised Radio Link Reconfiguration Preparation- and Unsynchronised Radio Link Reconfiguration-procedures since there is no use for this cause value in these procedures.

Notes for revision 1

It is clarified that DL transmission shall be stopped when Transmission Gap Pattern Sequences overlap during CM measurement.

Addressed corrections to 'Invalid CM settings' cause value in procedures RL Setup-, Synchronised Radio Link Reconfiguration Preparation- and Unsynchronised Radio Link Reconfiguration- procedure rejected, since cause value is usable for indicating not supported pattern parameters when they are configured.



Other errors corrected (Node B->DRNS, clause->subclause and chapters where no modifications were addressed are removed)

Consequences for not accepting this CR:

If this Cr is not accepted the DRNS behaviour in the case when two or more pattern sequences overlap during CM measurement is not well defined.

**Clauses affected:** 8.3.1, 8.3.5, 8.3.9 and 8.3.16

**Other specs affected:**

Other 3G core specifications  
Other GSM core specifications  
MS test specifications  
BSS test specifications  
O&M specifications

X

→ List of CRs: R3-002732/Cr269r1 on 25.433  
→ List of CRs:  
→ List of CRs:  
→ List of CRs:  
→ List of CRs:

**Other comments:**



help.doc

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

## 8.3 DCH procedures

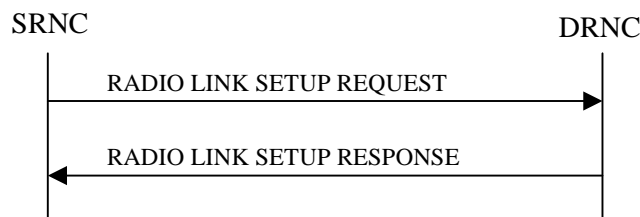
### 8.3.1 Radio Link Setup

#### 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 1: 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 RRC connection, the RADIO LINK SETUP REQUEST message is sent to the corresponding DRNC to request setup of the radio link(s).

The message includes the S-RNTI associated to the UE, and, if the UE context is already present in the DRNC, the corresponding D-RNTI.

[FDD - The *First RLS Indicator* IE indicates if the concerning RL shall be considered part of the first RLS established towards this UE. If the *First RLS indicator* IE is set to "first RLS", the DRNS shall use a TPC pattern of  $n \cdot "01" + "1"$  in the DL of the concerning RL and all RLs which are part of the same RLS, until UL synchronisation is achieved on the Uu. The TPC pattern shall continuously be repeated but shall be restarted at the beginning of every frame with  $CFN \bmod 4 = 0$ . For all other RLs, the DRNS shall use a TPC pattern of all "1"s in the DL until UL synchronisation is achieved on the Uu.]

[FDD - The *Diversity Control Field* IE indicates for each RL except 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 RADIO LINK SETUP REQUEST message includes the *Allowed Queuing Time* IE the DRNS may queue the request before providing a response to the SRNC.

[FDD - If the *Initial DL TX Power* IE and *Uplink SIR Target* IE are present 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 constraints 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.]

[FDD - If the *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 *DL Timeslot ISCP* IE are present, the DRNC should use the indicated values when deciding the Initial DL TX Power.]

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

[FDD – The DRNS shall start the 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 for the concerning RLS or a DL POWER CONTROL REQUEST message is received. No innerloop 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) with DPC\_MODE=0 and the power control procedure (see 8.3.7).]

[TDD – The DRNS shall start the DL transmission using the indicated DL TX power level (if received) or the decided DL TX power level on each DL channelisation code and on each Time Slot of a RL until UL synchronisation is achieved for the concerning 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). ]

If the RADIO LINK SETUP REQUEST message includes a *DCH Info* IE with multiple *DCH Specific Info* IEs then the DRNS shall treat the DCHs in the *DCH Info* 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 *Allocation/Retention Priority* IE defines the priority level that should be used by the DRNS to prioritise the allocation and the retention of the resources used by the DCH. The *Frame Handling Priority* IE defines the priority level that should be used by the DRNS to prioritise the discard/delay of the data frames of the DCH and DSCH (if any).

The DRNS shall use the included *UL DCH FP Mode* IE for a DCH or a set of co-ordinated DCHs as the new 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 new 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 new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs.

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity* 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 *Transmission Gap Pattern Sequence Information* IE, the DRNS shall store the information about the Transmission Gap Pattern Sequences to be used when those are activated.]

[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 immediately activate the indicated Transmission Gap Pattern Sequences: for each sequence the *TGCFN* refers to latest passed CFN with that value. If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in subclause 8.3.9. ~~If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in ref. [26].~~]

[TDD – The DRNS shall use the *RB Identity* IE list inside the USCH information group to map each *RB Identity* IE to the corresponding USCH.]

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 setup.

[TDD –. If the DSCH Information is included in the RADIO LINK SETUP REQUEST message, the DRNC shall send a valid set of *Scheduling Priority* IE and *MAC-c/sh SDU lengths* IE parameters to the SRNC in the message RADIO LINK SETUP RESPONSE message].

[FDD - If the *Initial DL TX Power* and the *Uplink SIR Target* IEs are not present in the RADIO LINK SETUP REQUEST message, then DRNC shall include the determined initial Uplink SIR Target in the RADIO LINK SETUP RESPONSE message.]

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

[FDD – For each RL not having a common generation of the TPC commands in the DL with another RL, the 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 - In the case of combining one or more RLs the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message with the Diversity Indication that the RL is combined with another 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 be included for all but one 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 [TDD – and USCH] of the RL.]

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

[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.]

The DRNS shall also provide the SRNC with the UTRAN Cell Identifier (UC-Id), the Frequency Number, the [FDD-Primary Scrambling Code], the [TDD-Cell Parameter ID, the Sync Case, the SCH Time Slot information, the Block STTD Indicator] of the neighbouring cells to the cell(s) where the radio link(s) are added. In addition, if the information is available, the DRNC shall also provide the [FDD-CPICH Power level]/[TDD-PCCPCH Power level, DPCH Constant Value] and Frame Offset of the neighbouring cell.

If a neighbouring cell is controlled by another RNC, the DRNC shall report also the node identifications (i.e. RNC and CN domain nodes) of the RNC controlling the neighbouring cell. [FDD – If the information is available, the DRNC shall include the *Tx Diversity Indicator* IE and Tx diversity capability (i.e. *STTD Support Indicator* IE, *Closed Loop Mode1 Support Indicator* IE, and *Closed Loop Mode2 Support Indicator* IE) in *Per FDD Cell Information* IE].

If there was no UE context for this UE in the DRNS before the RADIO LINK SETUP REQUEST message was received 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 *DRAC Control* IE is set to "requested" in the RADIO LINK SETUP REQUEST message for at least one DCH and if the DRNC supports the DRAC, the DRNC shall indicate in the RADIO LINK SETUP RESPONSE message the *Secondary CCPCH Info* IE to be received on FACH, for each added Radio Link. If the DRNC does not support DRAC, it shall not provide these IEs in the RADIO LINK SETUP RESPONSE message.]

Depending on local configuration in the DRNS, it may include the geographical co-ordinates of the cell and the UTRAN access point position for each of the established RLs in the RADIO LINK SETUP RESPONSE message.

After sending of the RADIO LINK SETUP RESPONSE message the DRNS shall continuously attempt to obtain UL synchronisation and start reception on the new RL. The DRNS shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in ref. [3].

[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 Indication* IE].

[FDD- If the *Downlink compressed mode method* in one or more Transmission Gap Pattern Sequence is set to 'SF/2' in the RADIO LINK SETUP REQUEST message, the DRNS shall include the *Transmission Gap Pattern Sequence Information Response* IE in the RADIO LINK SETUP RESPONSE message indicating for each DL Channelisation Code whether the alternative scrambling code shall be used or not.]

## 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 Preparation procedure.

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

### 8.3.5.2 Successful Operation



**Figure 2: Synchronised Radio Link Reconfiguration Commit procedure, Successful Operation**

The DRNS shall switch to the new configuration previously prepared by the Synchronised RL Reconfiguration procedure at the CFN requested by the SRNC when receiving the RADIO LINK RECONFIGURATION COMMIT message from the SRNC. [FDD – The CFN shall be ignored by DRNS if only Transmission Gap Pattern Sequence Information was included in the RL Reconfiguration.] When this procedure has been completed the Prepared Reconfiguration does not exist any more, see subclause 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 CM Configuration Change CFN. From that moment on all Transmission Gap Pattern Sequences included in *Transmission Gap Pattern Sequence Status* IE group repetitions shall be started when the indicated TGCFN elapses. The *CM Configuration Change CFN* in the *Active Pattern Sequence Information* IE and *TGCFN* for each sequence refers to the next coming CFN with that value. If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in subclause 8.3.9.~~If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in ref. [26].]~~

### 8.3.5.3 Abnormal Conditions

## 8.3.9 Radio Link Failure

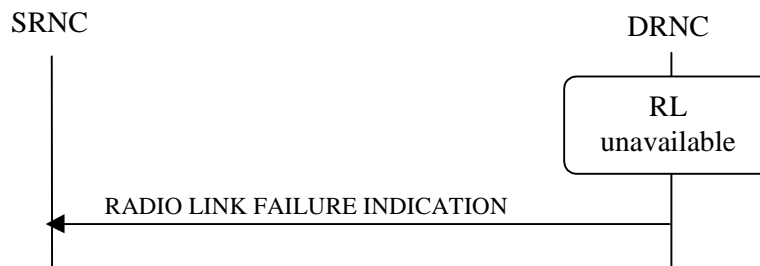
### 8.3.9.1 General

This procedure is started by the DRNS when one or more Radio Links or Radio Link Sets 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 3: RL Failure procedure, Successful Operation**

When DRNC detects that a one or more Radio Links or Radio Link Sets 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 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 group. [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 group.]

When the RL Failure procedure is used to notify loss of UL synchronisation, the message shall be sent when indicated by the UL sync detection algorithm defined in ref. [10] and[22] , and with the cause value 'Synchronisation Failure'.

[FDD – When Radio Link Failure procedure is used to indicate permanent failure in one or more Radio Links/Radio Link Sets due the overlapping of two or more pattern sequences during the compressed mode measurement, 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/Radio Link Set 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.

#### Miscellaneous Causes:

- Control Processing Overload;
- HW Failure;

- O&M Intervention.

### 8.3.9.3 Abnormal Conditions

-



## 8.3.16 Compressed Mode Command [FDD]

### 8.3.16.1 General

The Compressed Mode Command procedure is used to activate 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 4: Compressed Mode Command procedure, Successful Operation**

The DRNS shall deactivate all the ongoing Transmission Gap Pattern Sequences at the CM Configuration Change CFN 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 group repetitions shall be started when the indicated TGCFN elapses. The *CM Configuration Change CFN* in the *Active Pattern Sequence Information* IE and *TGCFN* for each sequence refers to the next coming CFN with that value.

If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in subclause 8.3.9.  
~~If during the compressed mode measurement the gaps of two or more pattern sequences overlap, the DRNS shall behave as specified in ref. [26].~~

### 8.3.16.3 Abnormal Conditions

-

## CHANGE REQUEST

25.423 CR 219

rev 5

Current version: 3.3.0

Proposed change affects: (U)SIM  ME/UE  Radio Access Network  Core Network

<b>Title:</b>	Supporting for CN Direct Paging		
<b>Source:</b>	R-WG3		
<b>Work item code:</b>		<b>Date:</b>	Nov 2000
<b>Category:</b>	<b>F</b>	<b>Release:</b>	R99
<i>Use one of the following categories:</i>		<i>Use one of the following releases:</i>	
<b>F</b> (essential correction)		2 (GSM Phase 2)	
<b>A</b> (corresponds to a correction in an earlier release)		R96 (Release 1996)	
<b>B</b> (Addition of feature),		R97 (Release 1997)	
<b>C</b> (Functional modification of feature)		R98 (Release 1998)	
<b>D</b> (Editorial modification)		R99 (Release 1999)	
Detailed explanations of the above categories can be found in 3GPP TR 21.900.		REL-4 (Release 4)	
		REL-5 (Release 5)	

<b>Reason for change:</b>	<p>In RAN WG2 #15 meeting, R2-1831(CR 520r2 to 25.331) was agreed and this contribution is in line with it. The idea is following :</p> <p>To convey a CN originated page to a connected mode UE in CELL_PCH/URA_PCH, the UTRAN directly pages the connected mode UE with PAGING TYPE 1 and with paging originator = UTRAN on the PCH and includes CN page information (CN domain identity and CN paging cause).</p> <p>And also this contribution propose value range of DRX Cycle Length Coefficient to integer(3..12) to align with RRC specification.</p>
<b>Summary of change:</b>	<p>Rev 5: Page numbers were corrected ASN.1 correction.</p> <p>Rev 4: WG2 #17 meeting, the upper bound of DRX Cycle Length Coefficient were changed to 9 from 12.(R2-2351). This revision reflects this decision.</p> <p>Rev 3: ASN.1 error correction based on NEC comment. , -&gt;  </p> <p>Rev 2: Condition table was removed.</p> <p>Rev 1 :</p>

1. Procedure text in Paging procedure was remanded. And also "group" was deleted.
2. *CN Originated Page to Connected Mode UE* IE was corrected and changed as optional. Corresponding change was applied in ASN.1.
3. On the cover sheet, dependency was denoted.(TS25.331 CR520)

**Consequences if not approved:**

It will not be in line with WG2 decision and cannot support CN direct paging to UE in CELL\_PCH/URA\_PCH.

**Clauses affected:**

8.2.4.2, 9.1.27, 9.2.1.26, 9.2.1.x, 9.3.3, 9.3.4, 9.3.6

**Other specs affected:**

<input checked="" type="checkbox"/>	Other core specifications	TS25.331 CR520, TS25.331 CR631
<input type="checkbox"/>	Test specifications	
<input type="checkbox"/>	O&M Specifications	

**Other comments:**

## 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 1: 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

-

## 9.1.27 PAGING 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		–	
CHOICE <i>paging area</i>					YES	ignore
>"URA"					YES	ignore
>>URA-ID	M		9.2.1.70		–	
>"Cell"					YES	ignore
>>C-Id	M		9.2.1.6		–	
SRNC-Id	M		RNC-Id 9.2.1.50		YES	ignore
S-RNTI	M		9.2.1.53		YES	ignore
IMSI	M		9.2.1.31		–	
DRX Cycle Length Coefficient	M		9.2.1.26		YES	ignore
<b>CN Originated Page to Connected Mode UE</b>		0..1			YES	ignore
>Paging Cause	M		9.2.1.x		–	
>CN Domain Type	M		9.2.1.x		–	
>Paging Record Type	M		9.2.1.x		–	

### 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 Coefficient			<del>Integer</del> INTEGER (23, ..., 429)	Refers to 'k' in the formula as specified in ref. [15], Discontinuous Reception.

### 9.2.1.x Paging Cause

Cause for a CN originated page.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Paging Cause</u>			<del>ENUMERATED</del> Enumerated (Terminating Conversational Call, Terminating Streaming Call, Terminating Interactive Call, Terminating Background Call, SMS....)	See in [16]

### 9.2.1.x CN Domain Type

Identifies the type of core network domain.

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>CN Domain Type</u>			<del>ENUMERATED</del> Enumerated (CS domain, PS domain, Don't care....)	See in [16]

### 9.2.1.x Paging Record Type

<u>IE/Group Name</u>	<u>Presence</u>	<u>Range</u>	<u>IE type and reference</u>	<u>Semantics description</u>
<u>Paging Record Type</u>			<u>Enumerated</u> <u>ENUMERATED</u> <u>ED (IMSI</u> <u>(GSM-MAP),</u> <u>TMSI (GSM-</u> <u>MAP), P-</u> <u>TMSI (GSM-</u> <u>MAP), IMSI</u> <u>(DS-41),</u> <u>TMSI (DS-</u> <u>41))</u>	<u>See in [16]</u>

### 9.3.3 PDU Definitions

```

-- *****
--
-- PDU definitions for RNSAP.
--
-- *****

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

IMPORTS
    Active-Pattern-Sequence-Information,
    AllocationRetentionPriority,
    AllowedQueuingTime,
    BLER,
    Block-STTD-Indicator,
    BindingID,
    C-ID,
    C-RNTI,
    CCTrCH-ID,
    CellIndividualOffset,
    CFN,
    ClosedLoopModel1-SupportIndicator,
    ClosedLoopMode2-SupportIndicator,
    ClosedLoopTimingadjustmentmode,
    CN-CS-DomainIdentifier,
    CN-PS-DomainIdentifier,
    CNDomainType,
    Cause,
    CellParameterID,
    ChipOffset,
    CriticalityDiagnostics,
    D-RNTI,
    D-RNTI-ReleaseIndication,
    DCH-ID,
    DL-DPCH-SlotFormat,
    DL-TimeslotISCP,
    DL-Power,
    DL-ScramblingCode,
    DPCHConstantValue,
    DPCH-ID,
    DRACControl,
    DRXCycleLengthCoefficient,
    DedicatedMeasurementType,
    DedicatedMeasurementValue,
    DiversityControlField,
    DiversityMode,
    DSCH-ID,
    FACH-InitialWindowSize,
    SchedulingPriorityIndicator,
    FDD-DL-ChannelisationCodeNumber,
    FDD-S-CCPCH-Offset,
    FDD-TPC-DownlinkStepSize,
    FirstRLS-Indicator,
    FrameHandlingPriority,
    FrameOffset,
    GA-AccessPointPosition,
    GA-Cell,
    IB-SG-POS,
    IB-SG-REP,
    IMSI,
    L3-Information,
    LimitedPowerIncrease,
    MAC-c-sh-SDU-Length,

```



MaximumAllowedULTxPower,  
 MaxNrDLPhysicalchannels,  
 MaxNrOfUL-DPCHs,  
 MaxNrTimeslots,  
 MaxNrULPhysicalchannels,  
 MeasurementFilterCoefficient,  
 MeasurementID,  
 MidambleShiftAndBurstType,  
 MinimumSpreadingFactor,  
 MinUL-ChannelisationCodeLength,  
 MultipleURAsIndicator,  
 MultiplexingPosition,  
 NrOfDLchannelisationcodes,  
PagingCause,  
PagingRecordType,  
 PDSCHCodeMapping,  
 PayloadCRC-PresenceIndicator,  
 PCCPCH-Power,  
 PowerAdjustmentType,  
 PowerOffset,  
 PRACH-Midamble,  
 PRACH-MinimumSpreadingFactor,  
 PreambleSignatures,  
 PrimaryCCPCH-RSCP,  
 PrimaryCPICH-EcNo,  
 PrimaryCPICH-Power,  
 PrimaryScramblingCode,  
 PropagationDelay,  
 PunctureLimit,  
 QE-Selector,  
 RACH-SubChannelNumbers,  
 RANAP-RelocationInformation,  
 RB-Identity,  
 RL-ID,  
 RL-Set-ID,  
 RNC-ID,  
 RepetitionLength,  
 RepetitionPeriod,  
 ReportCharacteristics,  
 RSSI,  
 S-FieldLength,  
 S-RNTI,  
 SCH-TimeSlot,  
 SAI,  
 SN,  
 SSDT-CellID,  
 SSDT-CellID-Length,  
 SSDT-Indication,  
 SSDT-SupportIndicator,  
 STTD-Indicator,  
 STTD-SupportIndicator,  
 AdjustmentPeriod,  
 ScaledAdjustmentRatio,  
 MaxAdjustmentStep,  
 ScramblingCodeNumber,  
 SecondaryCCPCH-SlotFormat,  
 SyncCase,  
 TDD-ChannelisationCode,  
 TDD-DPCHOffset,  
 TDD-PhysicalChannelOffset,  
 TDD-TPC-DownlinkStepSize,  
 TFCI-Coding,  
 TFCI-Presence,  
 TFCI-SignallingMode,  
 TimeSlot,  
 TimingAdjustmentRequired,  
 ToAWE,  
 ToAWS,  
 TransmitDiversityIndicator,  
 TransportBearerID,  
 TransportBearerRequestIndicator,  
 TFCS,  
 Transmission-Gap-Pattern-Sequence-Information,  
 Transmission-Gap-Pattern-Sequence-Information-Response,  
 TransportFormatManagement,  
 TransportFormatSet,  
 TransportLayerAddress,  
 TrCH-SrcStatisticsDescr,

```

TxDiversityIndicator,
UARFCN,
UC-ID,
UL-DPCCH-SlotFormat,
UL-SIR,
UL-FP-Mode,
UL-ScramblingCode,
UL-TimeslotISCP,
URA-ID,
USCH-ID
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,
maxNoOfRB,
maxNoOfUSCHs,
maxNrOfCCTrCHs,
maxNrOfDCHs,
maxNrOfTS,
maxNrOfDL-Codes,
maxNrOfDPCHs,
maxNrOfMACcshSDU-Length,
maxNrOfRLs,
maxNrOfRLSets,
maxNrOfRLs-1,
maxNrOfRLs-2,
maxNrOfSCCPCHs,
maxNrOfULTs,
maxNrOfDLTs,
maxRNCinURA-1,
maxNrOfNeighbouringRNCs,
maxNrOfFDDNeighboursPerRNC,
maxNrOfTDDNeighboursPerRNC,
maxFACHCountPlus1,
maxIBSEG,

id-Active-Pattern-Sequence-Information,
id-AdjustmentRatio,
id-All-RLItem-DM-Rqst,
id-All-RLItem-Set-DM-Rqst,
id-AllowedQueuingTime,
id-BindingID,
id-C-ID,
id-C-RNTI,
id-CFN,
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-CellItem-PagingRqst,
id-ClosedLoopModel-SupportIndicator,
id-ClosedLoopMode2-SupportIndicator,
id-CNOOriginatedPage-PagingRqst,
id-CombiningItem-RL-AdditionFailureFDD,
id-CombiningItem-RL-AdditionRspFDD,
id-CombiningItem-RL-AdditionRspTDD,
id-CombiningItem-RL-SetupFailureFDD,
id-CombiningItem-RL-SetupRspFDD,
id-CriticalityDiagnostics,
id-D-RNTI,
id-D-RNTI-ReleaseIndication,
id-DCH-AddList-RL-ReconfPrepFDD,

```

id-DCH-AddList-RL-ReconfPrepTDD,  
 id-DCH-AddList-RL-ReconfRqstFDD,  
 id-DCH-AddList-RL-ReconfRqstTDD,  
 id-DCH-DeleteList-RL-ReconfPrepFDD,  
 id-DCH-DeleteList-RL-ReconfPrepTDD,  
 id-DCH-DeleteList-RL-ReconfRqstFDD,  
 id-DCH-DeleteList-RL-ReconfRqstTDD,  
 id-DCH-Information-RL-SetupRqstFDD,  
 id-DCH-InformationList-RL-SetupRqstTDD,  
 id-DCH-InformationResponseListIE-RL-ReconfReadyFDD,  
 id-DCH-InformationResponseListIE-RL-ReconfReadyTDD,  
 id-DCH-InformationResponseListIE-RL-ReconfRsp,  
 id-DCH-ModifyList-RL-ReconfPrepFDD,  
 id-DCH-ModifyList-RL-ReconfPrepTDD,  
 id-DCH-ModifyList-RL-ReconfRqstFDD,  
 id-DCH-ModifyList-RL-ReconfRqstTDD,  
 id-DCH-InformationResponseListIE-RL-SetupRspTDD,  
 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-ReconfRqstTDD,  
 id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD,  
 id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD,  
 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-ReconfRqstTDD,  
 id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,  
 id-DL-CCTrCH-InformationList-RL-SetupRqstTDD,  
 id-DL-CodeInformationListIE-PhyChReconfRqstFDD,  
 id-DL-CodeInformationListIE-RL-AdditionFailureFDD,  
 id-DL-CodeInformationListIE-RL-AdditionRspFDD,  
 id-DL-CodeInformationListIE-RL-ReconfReadyFDD,  
 id-DL-CodeInformationListIE-RL-ReconfRsp,  
 id-DL-CodeInformationListIE-RL-SetupFailureFDD,  
 id-DL-DPCH-Information-RL-ReconfPrepFDD,  
 id-DL-DPCH-Information-RL-SetupRqstFDD,  
 id-DL-DPCH-Information-RL-ReconfRqstFDD,  
 id-DL-DPCH-InformationItem-PhyChReconfRqstTDD,  
 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-Physical-Channel-Information-RL-SetupRqstTDD,  
 id-DLReferencePower,  
 id-DLReferencePowerList-DL-PC-Rqst,  
 id-DL-ReferencePowerInformation-DL-PC-Rqst,  
 id-DRXCycleLengthCoefficient,  
 id-DedicatedMeasurementObjectType-DM-Rprt,  
 id-DedicatedMeasurementObjectType-DM-Rqst,  
 id-DedicatedMeasurementObjectType-DM-Rsp,  
 id-DedicatedMeasurementType,  
 id-DiversityIndicationItem-RL-AdditionFailureFDD,  
 id-DiversityIndicationItem-RL-AdditionRspFDD,  
 id-DiversityIndicationItem-RL-AdditionRspTDD,  
 id-DiversityIndicationItem-RL-SetupFailureFDD,  
 id-DiversityIndicationItem-RL-SetupRspFDD,  
 id-DSCH-AddList-RL-ReconfPrepTDD,  
 id-DSCH-Add-RL-ReconfPrepFDD,  
 id-DSCH-DeleteList-RL-ReconfPrepTDD,  
 id-DSCH-Delete-RL-ReconfPrepFDD,  
 id-DSCH-InformationItem-RL-SetupRqstFDD,  
 id-DSCH-InformationListIE-RL-AdditionRspTDD,  
 id-DSCH-InformationListIEs-RL-SetupRspTDD,  
 id-DSCH-InformationList-RL-SetupRqstTDD,  
 id-DSCH-InformationResponseItem-RL-SetupRspFDD,  
 id-DSCH-InformationResponseListIE-RL-AdditionFailureFDD,  
 id-DSCH-InformationResponseListIE-RL-SetupFailureFDD,  
 id-DSCH-Information-RL-SetupRqstFDD,  
 id-DSCH-ModifyList-RL-ReconfPrepTDD,  
 id-DSCH-Modify-RL-ReconfPrepFDD,  
 id-DSCHToBeAddedOrModifiedIE-RL-ReconfReadyFDD,  
 id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD,

id-FACH-InfoForDRNCSelectedS-CCPCH-CTCH-ResourceRspFDD,  
 id-FACH-InfoForDRNCSelectedS-CCPCH-CTCH-ResourceRspTDD,  
 id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD,  
 id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD,  
 id-GA-AccessPointPosition,  
 id-GA-Cell,  
 id-GeneralCauseItem-RL-AdditionFailureFDD,  
 id-GeneralCauseItem-RL-AdditionFailureTDD,  
 id-GeneralCauseItem-RL-ReconfFailure,  
 id-GeneralCauseItem-RL-SetupFailureFDD,  
 id-GeneralCauseItem-RL-SetupFailureTDD,  
 id-IMSI,  
 id-L3-Information,  
 id-MAC-c-sh-SDU-LengthListIE-CTCH-ResourceRspFDD,  
 id-MAC-c-sh-SDU-LengthListIE-CTCH-ResourceRspTDD,  
 id-MAC-c-sh-SDU-LengthListIE-option-CTCH-ResourceRspFDD,  
 id-MAC-c-sh-SDU-LengthListIE-option-CTCH-ResourceRspTDD,  
 id-AdjustmentPeriod,  
 id-MaxAdjustmentStep,  
 id-MeasurementAvailableItem-DedicatedMeasurementReport,  
 id-MeasurementnotAvailableItem-DedicatedMeasurementReport,  
 id-MeasurementFilterCoefficient,  
 id-MeasurementID,  
 id-MultipleURAsIndicator,  
 id-Neighbouring-CellInformationItem-RL-AdditionFailureFDD,  
 id-Neighbouring-CellInformationItem-RL-AdditionRsp,  
 id-Neighbouring-CellInformationItem-RL-SetupFailureFDD,  
 id-Neighbouring-CellInformationItem-RL-SetupRsp,  
 id-NonCombiningItem-RL-AdditionFailureFDD,  
 id-NonCombiningItem-RL-AdditionRspFDD,  
 id-NonCombiningItem-RL-AdditionRspTDD,  
 id-NonCombiningOrFirstRLItem-RL-SetupFailureFDD,  
 id-NonCombiningOrFirstRLItem-RL-SetupRspFDD,  
 id-PagingArea-PagingRqst,  
 id-PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspFDD,  
 id-PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspTDD,  
 id-PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspFDD,  
 id-PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspTDD,  
 id-PowerAdjustmentType,  
 id-ProcedureScope-DL-PC-Rqst,  
 id-RACH-InfoForDRNCSelectedPRACH-CTCH-ResourceRspFDD,  
 id-RACH-InfoForDRNCSelectedPRACH-CTCH-ResourceRspTDD,  
 id-RANAP-RelocationInformation,  
 id-RL-Information-PhyChReconfRqstFDD,  
 id-RL-Information-PhyChReconfRqstTDD,  
 id-RL-Information-RL-AdditionRqstFDD,  
 id-RL-Information-RL-AdditionRqstTDD,  
 id-RL-Information-RL-DeletionRqst,  
 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-DM-Rprt,  
 id-RL-InformationItem-DM-Rqst,  
 id-RL-InformationItem-DM-Rsp,  
 id-RL-InformationItem-RL-SetupRqstFDD,  
 id-RL-InformationList-RL-AdditionRqstFDD,  
 id-RL-InformationList-RL-DeletionRqst,  
 id-RL-InformationList-RL-ReconfPrepFDD,  
 id-RL-InformationResponse-RL-AdditionRspTDD,  
 id-RL-InformationResponse-RL-ReconfReadyTDD,  
 id-RL-InformationResponse-RL-SetupRspTDD,  
 id-RL-InformationResponseItem-RL-AdditionRspFDD,  
 id-RL-InformationResponseItem-RL-ReconfReadyFDD,  
 id-RL-InformationResponseItem-RL-ReconfRsp,  
 id-RL-InformationResponseItem-RL-SetupRspFDD,  
 id-RL-InformationResponseList-RL-AdditionRspFDD,  
 id-RL-InformationResponseList-RL-ReconfReadyFDD,  
 id-RL-InformationResponseList-RL-ReconfRsp,  
 id-RL-InformationResponseList-RL-SetupRspFDD,  
 id-RLItem-DM-Rprt,  
 id-RLItem-DM-Rqst,  
 id-RLItem-DM-Rsp,  
 id-RLItem-RL-FailureInd,  
 id-RLItem-RL-RestoreInd,  
 id-RL-ReconfigurationFailure-RL-ReconfFail,  
 id-RL-Set-InformationItem-DM-Rprt,

id-RL-Set-InformationItem-DM-Rqst,  
 id-RL-Set-InformationItem-DM-Rsp,  
 id-RL-Set-Information-RL-FailureInd,  
 id-RL-Set-Information-RL-RestoreInd,  
 id-RL-SetItem-DM-Rprt,  
 id-RL-SetItem-DM-Rqst,  
 id-RL-SetItem-DM-Rsp,  
 id-RL-SetItem-RL-FailureInd,  
 id-RL-SetItem-RL-RestoreInd,  
 id-RLSpecificCauseItem-RL-AdditionFailureFDD,  
 id-RLSpecificCauseItem-RL-AdditionFailureTDD,  
 id-RLSpecificCauseItem-RL-ReconfFailure,  
 id-RLSpecificCauseItem-RL-SetupFailureFDD,  
 id-RLSpecificCauseItem-RL-SetupFailureTDD,  
 id-RNCsWithCellsInTheAccessedURA-List-UL-ST-IndFDD,  
 id-RNCsWithCellsInTheAccessedURA-List-UL-ST-IndTDD,  
 id-RNCsWithCellsInTheAccessedURA-List-CTCH-ResourceRspFDD,  
 id-RNCsWithCellsInTheAccessedURA-List-CTCH-ResourceRspTDD,  
 id-ReportCharacteristics,  
 id-Reporting-Object-RL-FailureInd,  
 id-Reporting-Object-RL-RestoreInd,  
 id-S-RNTI,  
 id-SAI,  
 id-SRNC-ID,  
 id-SecondaryCCPCHListIE-CTCH-ResourceRspTDD,  
 id-STTD-SupportIndicator,  
 id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD,  
 id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD,  
 id-SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,  
 id-SuccessfulRL-InformationResponseList-RL-SetupFailureFDD,  
 id-TransportBearerID,  
 id-TransportBearerRequestIndicator,  
 id-TransportLayerAddress,  
 id-UC-ID,  
 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-ReconfRqstTDD,  
 id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD,  
 id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD,  
 id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD,  
 id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD,  
 id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD,  
 id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD,  
 id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD,  
 id-UL-CCTrCH-InformationList-RL-SetupRqstTDD,  
 id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD,  
 id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD,  
 id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD,  
 id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD,  
 id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD,  
 id-UL-DPCH-Information-RL-ReconfPrepFDD,  
 id-UL-DPCH-Information-RL-ReconfRqstFDD,  
 id-UL-DPCH-Information-RL-SetupRqstFDD,  
 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-SetupRqstTDD,  
 id-UL-SIRTarget,  
 id-URA-ID,  
 id-URAIItem-PagingRqst,  
 id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD,  
 id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD,  
 id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD,  
 id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD,  
 id-UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD,  
 id-UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD,  
 id-USCH-AddList-RL-ReconfPrepTDD,  
 id-USCH-DeleteList-RL-ReconfPrepTDD,  
 id-USCH-InformationListIE-RL-AdditionRspTDD,  
 id-USCH-InformationListIEs-RL-SetupRspTDD,  
 id-USCH-InformationList-RL-SetupRqstTDD,  
 id-USCH-ModifyList-RL-ReconfPrepTDD,  
 id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD

FROM RNSAP-Constants;

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<Parts of the ASN.1 module is omitted>

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-- *****
--
-- PAGING REQUEST
--
-- *****

PagingRequest ::= SEQUENCE {
    protocolIEs          ProtocolIE-Container    {{PagingRequest-IEs}},
    protocolExtensions   ProtocolExtensionContainer {{PagingRequest-Extensions}}
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 } |
    { ID id-IMSI                            CRITICALITY ignore TYPE IMSI              PRESENCE
    mandatory } |
    { ID id-DRXCycleLengthCoefficient      CRITICALITY ignore TYPE
    DRXCycleLengthCoefficient              PRESENCE mandatory } }_T_
{ ID id-CNOriginatedPage-PagingRqst     CRITICALITY ignore TYPE CNOriginatedPage-
PagingRqst                             PRESENCE optional }_T_
    ...
}

PagingArea-PagingRqst ::= CHOICE {
    uRA                URA-PagingRqst,
    cell               Cell-PagingRqst,
    ...
}

URA-PagingRqst ::= ProtocolIE-Single-Container {{ URAIE-PagingRqst }}

URAIE-PagingRqst RNSAP-PROTOCOL-IES ::= {
    { ID id-URAIItem-PagingRqst  CRITICALITY ignore TYPE URAIItem-PagingRqst PRESENCE mandatory }
}

URAIItem-PagingRqst ::= SEQUENCE {
    uRA-ID                URA-ID,
    iE-Extensions         ProtocolExtensionContainer { { URAIItem-PagingRqst-ExtIEs } }
OPTIONAL,
    ...
}

URAIItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

Cell-PagingRqst ::= ProtocolIE-Single-Container {{ CellIE-PagingRqst }}

CellIE-PagingRqst RNSAP-PROTOCOL-IES ::= {
    { ID id-CellItem-PagingRqst  CRITICALITY ignore TYPE CellItem-PagingRqst PRESENCE
    mandatory }
}

CellItem-PagingRqst ::= SEQUENCE {
    c-ID                  C-ID,
    iE-Extensions         ProtocolExtensionContainer { { CellItem-PagingRqst-ExtIEs } }
OPTIONAL,
    ...
}

CellItem-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

CNOriginatedPage-PagingRqst ::= SEQUENCE {
    pagingCause          PagingCause,
    cNDomainType        CNDomainType,
    pagingRecordType     PagingRecordType,
    iE-Extensions       ProtocolExtensionContainer { { CNOriginatedPage-PagingRqst-ExtIEs } }
OPTIONAL,
    ...

```

```
}  
|
```

```
CNOriginatedPage-PagingRqst-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
```

```
...  
}
```

```
PagingRequest-Extensions RNSAP-PROTOCOL-EXTENSION ::= {
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```
...  
}
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<Parts of the ASN.1 module is omitted>
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### 9.3.4 Information Element Definitions

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

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<Parts of the ASN.1 module is omitted>
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-- 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 {
    transaction-not-allowed,
    transfer-syntax-error,
    abstract-syntax-error-reject,
    abstract-syntax-error-ignore-and-notify,
    message-not-compatible-with-receiver-state,
    semantic-error,
    unspecified,
    abstract-syntax-error-falsely-constructed-message,
    ...
}

CauseRadioNetwork ::= ENUMERATED {
    unknown-C-ID,
    cell-not-available,
    power-level-not-supported,
    ul-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,
    reconfiguration-not-allowed,
    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,
    dch-not-supported,
    dsch-not-supported,
    usch-not-supported,
    rach-fach-cpch-not-supported,
    ul-spreading-factor-not-supported,
    dl-spreading-factor-not-supported,
    cm-not-supported,
    transaction-not-supported-by-destination-node-b,
    ...
}

CauseTransport ::= ENUMERATED {

```

```

    transmission-link-failure,
    transmission-port-not-available,
    unspecified,
    ...
}

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

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

CellIndividualOffset ::= INTEGER (-20..20)

CellParameterID ::= INTEGER (0..127,...)

CFN ::= INTEGER (0..255)

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

ChipOffset ::= INTEGER (0..38399)

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,
    ...
}

CRC-Size ::= ENUMERATED {
    v0,
    v8,
    v12,
    v16,
    v24,
    ...
}

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

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

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

```

```

        iE-Extensions          ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs}
    } OPTIONAL,
        ...
    }

```

```

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

```

```

CN-CS-DomainIdentifier ::= SEQUENCE {
    pLMN-ID          PLMN-ID,
    lAC              LAC,
    iE-Extensions    ProtocolExtensionContainer { {CN-CS-DomainIdentifier-ExtIEs} } OPTIONAL
}

```

```

CN-CS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

CN-PS-DomainIdentifier ::= SEQUENCE {
    pLMN-ID          PLMN-ID,
    lAC              LAC,
    rAC              RAC,
    iE-Extensions    ProtocolExtensionContainer { {CN-PS-DomainIdentifier-ExtIEs} } OPTIONAL
}

```

```

CN-PS-DomainIdentifier-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

```

```

CNDomainType ::= ENUMERATED {
    cs-domain,
    ps-domain,
    dont-care,
    ...
}

```

-- According to the mapping See in [16]

```

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

```

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-- D

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```

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

```

```

DedicatedMeasurementType ::= ENUMERATED {
    sir,
    sir-error,
    transmitted-code-power,
    rSCP,
    rx-timing-deviation,
    round-trip-time,
    ...
}

```

```

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

```

```

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

```

```

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

```

```

DiversityMode ::= ENUMERATED {
    none,
    sTTD,
    closedLoopModel,
}

```

```

    closedLoopMode2,
    ...
}
DL-DPCH-SlotFormat          ::= INTEGER (0..16,...)
DL-Power                   ::= INTEGER (-350..150)
-- Value = DL-Power / 10
-- Unit dB, Range -35dB .. +15dB, Step +0.1dB
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-TimeslotISCP            ::= INTEGER (0..91)
-- According to mapping in [24]
Downlink-Compressed-Mode-Method ::= ENUMERATED {
    puncturing,
    sFdiv2,
    higher-layer-scheduling,
    ...
}
DPCH-ID                    ::= INTEGER (0..239)
DPCHConstantValue ::= INTEGER (-10..10)
-- Unit dB, Step 1dB
DRACControl                ::= ENUMERATED {
    requested,
    not-requested
}
DRXCycleLengthCoefficient  ::= INTEGER (23..129)
-- According to mapping See in [16]
DSCH-ID                    ::= INTEGER (0..255)
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<Parts of the ASN.1 module is omitted>
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PagingCause ::= ENUMERATED {
  terminating-conversational-call,
  terminating-streaming-call,
  terminating-interactive-call,
  terminating-background-call,
  sms,
  ...
}
-- According to mappingSee in [16]

PagingRecordType ::= ENUMERATED {
  imsi-gsm-map,
  tmsi-gsm-map,
  p-tmsi-gsm-map,
  imsi-ds-41,
  tmsi-ds-41,
  ...
}
-- According to mappingSee 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

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-CodeRange ::= SEQUENCE (SIZE (1..maxNoCodeGroups)) OF
SEQUENCE {
  spreadingFactor          SpreadingFactor,
  multi-code-info          Multi-code-info,
  start-CodeNumber         CodeNumber,
  stop-CodeNumber          CodeNumber,
  ...
}

PDSCHCodeMapping-SignallingMethod-TFCIRange ::= SEQUENCE (SIZE (1..maxNoTFCIGroups)) OF
SEQUENCE {
  maxTFCIvalue            MaxTFCIvalue,
  spreadingFactor         SpreadingFactor,
  multi-code-info         Multi-code-info,
  codeNumber              CodeNumber,
  ...
}

PDSCHCodeMapping-SignallingMethod-Explicit ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
SEQUENCE {
  spreadingFactor          SpreadingFactor,
  multi-code-info          Multi-code-info,
  codeNumber              CodeNumber,
  ...
}

Periodic ::= SEQUENCE {

```

```

    reportPeriodicity      ReportPeriodicity,
    iE-Extensions          ProtocolExtensionContainer { {Periodic-ExtIEs} } OPTIONAL,
    ...
}

Periodic-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

PLMN-ID ::= OCTET STRING (SIZE(3))

PowerAdjustmentType ::= ENUMERATED {
    none,
    common,
    individual
}

PowerOffset          ::= INTEGER (0..24)

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

PRACH-MinimumSpreadingFactor ::= ENUMERATED {
    v32,
    v64,
    v128,
    v256,
    ...
}

PreambleSignatures ::= BIT STRING (SIZE (16))
-- Bit 0=P0, Bit 1=P1, .. ,Bit 15=P15 See ref. [21] --

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 mapping in [14]

PrimaryScramblingCode ::= INTEGER (0..511)

PropagationDelay ::= INTEGER (0..255)

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

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<Parts of the ASN.1 module is omitted>
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### 9.3.6 Constant Definitions

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<Parts of the ASN.1 module is omitted>
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-- *****
--
-- IEs
--
-- *****

id-AllowedQueuingTime                INTEGER ::= 4
id-BindingID                         INTEGER ::= 5
id-C-ID                              INTEGER ::= 6
id-C-RNTI                            INTEGER ::= 7
id-CFN                               INTEGER ::= 8
id-CN-CS-DomainIdentifier            INTEGER ::= 9
id-CN-PS-DomainIdentifier            INTEGER ::= 10
id-Cause                             INTEGER ::= 11
id-CellItem-PagingRqst              INTEGER ::= 12
id-CombiningItem-RL-AdditionFailureFDD INTEGER ::= 15
id-CombiningItem-RL-AdditionRspFDD   INTEGER ::= 16
id-CombiningItem-RL-AdditionRspTDD   INTEGER ::= 17
id-CombiningItem-RL-SetupFailureFDD  INTEGER ::= 18
id-CombiningItem-RL-SetupRspFDD      INTEGER ::= 19
id-CriticalityDiagnostics            INTEGER ::= 20
id-D-RNTI                            INTEGER ::= 21
id-D-RNTI-ReleaseIndication          INTEGER ::= 22
id-DCH-AddList-RL-ReconfPrepFDD      INTEGER ::= 26
id-DCH-AddList-RL-ReconfPrepTDD      INTEGER ::= 27
id-DCH-AddList-RL-ReconfRqstFDD      INTEGER ::= 28
id-DCH-AddList-RL-ReconfRqstTDD      INTEGER ::= 29
id-DCH-DeleteList-RL-ReconfPrepFDD   INTEGER ::= 30
id-DCH-DeleteList-RL-ReconfPrepTDD   INTEGER ::= 31
id-DCH-DeleteList-RL-ReconfRqstFDD   INTEGER ::= 32
id-DCH-DeleteList-RL-ReconfRqstTDD   INTEGER ::= 33
id-DCH-Information-RL-SetupRqstFDD   INTEGER ::= 34
id-DCH-InformationList-RL-SetupRqstTDD INTEGER ::= 35
id-DCH-ModifyList-RL-ReconfPrepFDD   INTEGER ::= 39
id-DCH-ModifyList-RL-ReconfPrepTDD   INTEGER ::= 40
id-DCH-ModifyList-RL-ReconfRqstFDD   INTEGER ::= 41
id-DCH-ModifyList-RL-ReconfRqstTDD   INTEGER ::= 42
id-DCH-InformationResponseListIE-RL-SetupRspTDD INTEGER ::= 43
id-DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD INTEGER ::= 44
id-DL-CCTrCH-InformationListIE-RL-ReconfReadyTDD INTEGER ::= 45
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD INTEGER ::= 46
id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD INTEGER ::= 47
id-DL-CCTrCH-InformationListIE-PhyChReconfRqstTDD INTEGER ::= 48
id-DL-CCTrCH-InformationListIE-RL-AdditionRspTDD INTEGER ::= 49
id-DL-CCTrCH-InformationListIE-RL-SetupRspTDD INTEGER ::= 50
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD INTEGER ::= 51
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD INTEGER ::= 52
id-DL-CCTrCH-InformationList-RL-SetupRqstTDD INTEGER ::= 53
id-DL-CodeInformationListIE-PhyChReconfRqstFDD INTEGER ::= 54
id-DL-CodeInformationListIE-RL-AdditionFailureFDD INTEGER ::= 55
id-DL-CodeInformationListIE-RL-AdditionRspFDD INTEGER ::= 56
id-DL-CodeInformationListIE-RL-ReconfReadyFDD INTEGER ::= 57
id-DL-CodeInformationListIE-RL-SetupFailureFDD INTEGER ::= 58
id-DL-DPCH-Information-RL-ReconfPrepFDD INTEGER ::= 59
id-DL-DPCH-Information-RL-SetupRqstFDD INTEGER ::= 60
id-DL-DPCH-Information-RL-ReconfRqstFDD INTEGER ::= 61
id-DL-DPCH-InformationItem-PhyChReconfRqstTDD INTEGER ::= 62
id-DL-DPCH-InformationItem-RL-AdditionRspTDD INTEGER ::= 63
id-DL-DPCH-InformationItem-RL-SetupRspTDD INTEGER ::= 64
id-DLReferencePower                  INTEGER ::= 67
id-DLReferencePowerList-DL-PC-Rqst   INTEGER ::= 68
id-DL-ReferencePowerInformation-DL-PC-Rqst INTEGER ::= 69
id-DRXCycleLengthCoefficient         INTEGER ::= 70
id-DedicatedMeasurementObjectType-DM-Rprt INTEGER ::= 71
id-DedicatedMeasurementObjectType-DM-Rqst INTEGER ::= 72
id-DedicatedMeasurementObjectType-DM-Rsp INTEGER ::= 73
id-DedicatedMeasurementType          INTEGER ::= 74

```

id-DiversityIndicationItem-RL-AdditionFailureFDD	INTEGER ::= 75
id-DiversityIndicationItem-RL-AdditionRspFDD	INTEGER ::= 76
id-DiversityIndicationItem-RL-AdditionRspTDD	INTEGER ::= 77
id-DiversityIndicationItem-RL-SetupFailureFDD	INTEGER ::= 78
id-DiversityIndicationItem-RL-SetupRspFDD	INTEGER ::= 79
id-FACH-InfoForDRNCSelectedS-CCPCH-CTCH-ResourceRspFDD	INTEGER ::= 80
id-FACH-InfoForDRNCSelectedS-CCPCH-CTCH-ResourceRspTDD	INTEGER ::= 81
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspFDD	INTEGER ::= 82
id-FACH-InfoForUESelectedS-CCPCH-CTCH-ResourceRspTDD	INTEGER ::= 83
id-IMSI	INTEGER ::= 84
id-L3-Information	INTEGER ::= 85
id-MAC-c-sh-SDU-LengthListIE-CTCH-ResourceRspFDD	INTEGER ::= 86
id-MAC-c-sh-SDU-LengthListIE-CTCH-ResourceRspTDD	INTEGER ::= 87
id-MAC-c-sh-SDU-LengthListIE-option-CTCH-ResourceRspFDD	INTEGER ::= 88
id-MAC-c-sh-SDU-LengthListIE-option-CTCH-ResourceRspTDD	INTEGER ::= 89
id-AdjustmentPeriod	INTEGER ::= 90
id-MaxAdjustmentStep	INTEGER ::= 91
id-MeasurementFilterCoefficient	INTEGER ::= 92
id-MeasurementID	INTEGER ::= 93
id-MultipleURAsIndicator	INTEGER ::= 94
id-Neighbouring-CellInformationItem-RL-SetupFailureFDD	INTEGER ::= 95
id-Neighbouring-CellInformationItem-RL-SetupRsp	INTEGER ::= 96
id-NonCombiningItem-RL-AdditionFailureFDD	INTEGER ::= 97
id-NonCombiningItem-RL-AdditionRspFDD	INTEGER ::= 98
id-NonCombiningItem-RL-AdditionRspTDD	INTEGER ::= 99
id-NonCombiningOrFirstRLItem-RL-SetupFailureFDD	INTEGER ::= 100
id-NonCombiningOrFirstRLItem-RL-SetupRspFDD	INTEGER ::= 101
id-PagingArea-PagingRqst	INTEGER ::= 102
id-PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspFDD	INTEGER ::= 103
id-PriorityIndicatorAndInitialWindowSizeListIE-CTCH-ResourceRspTDD	INTEGER ::= 104
id-PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspFDD	INTEGER ::= 105
id-PriorityIndicatorAndInitialWindowSizeListIE-option-CTCH-ResourceRspTDD	INTEGER ::= 106
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id-ProcedureScope-DL-PC-Rqst	INTEGER ::= 108
id-RANAP-RelocationInformation	INTEGER ::= 109
id-RL-Information-PhyChReconfRqstFDD	INTEGER ::= 110
id-RL-Information-PhyChReconfRqstTDD	INTEGER ::= 111
id-RL-Information-RL-AdditionRqstFDD	INTEGER ::= 112
id-RL-Information-RL-AdditionRqstTDD	INTEGER ::= 113
id-RL-Information-RL-DeletionRqst	INTEGER ::= 114
id-RL-Information-RL-FailureInd	INTEGER ::= 115
id-RL-Information-RL-ReconfPrepFDD	INTEGER ::= 116
id-RL-Information-RL-RestoreInd	INTEGER ::= 117
id-RL-Information-RL-SetupRqstFDD	INTEGER ::= 118
id-RL-Information-RL-SetupRqstTDD	INTEGER ::= 119
id-RL-InformationItem-DM-Rprt	INTEGER ::= 120
id-RL-InformationItem-DM-Rqst	INTEGER ::= 121
id-RL-InformationItem-DM-Rsp	INTEGER ::= 122
id-RL-InformationItem-RL-SetupRqstFDD	INTEGER ::= 123
id-RL-InformationList-RL-AdditionRqstFDD	INTEGER ::= 124
id-RL-InformationList-RL-DeletionRqst	INTEGER ::= 125
id-RL-InformationList-RL-ReconfPrepFDD	INTEGER ::= 126
id-RL-InformationResponse-RL-AdditionRspTDD	INTEGER ::= 127
id-RL-InformationResponse-RL-ReconfReadyTDD	INTEGER ::= 128
id-RL-InformationResponse-RL-SetupRspTDD	INTEGER ::= 129
id-RL-InformationResponseItem-RL-AdditionRspFDD	INTEGER ::= 130
id-RL-InformationResponseItem-RL-ReconfReadyFDD	INTEGER ::= 131
id-RL-InformationResponseItem-RL-ReconfRsp	INTEGER ::= 132
id-RL-InformationResponseItem-RL-SetupRspFDD	INTEGER ::= 133
id-RL-InformationResponseList-RL-AdditionRspFDD	INTEGER ::= 134
id-RL-InformationResponseList-RL-ReconfReadyFDD	INTEGER ::= 135
id-RL-InformationResponseList-RL-ReconfRsp	INTEGER ::= 136
id-RL-InformationResponseList-RL-SetupRspFDD	INTEGER ::= 137
id-RLItem-DM-Rprt	INTEGER ::= 138
id-RLItem-DM-Rqst	INTEGER ::= 139
id-RLItem-DM-Rsp	INTEGER ::= 140
id-RL-ReconfigurationFailure-RL-ReconfFail	INTEGER ::= 141
id-RL-Set-InformationItem-DM-Rprt	INTEGER ::= 143
id-RL-Set-InformationItem-DM-Rqst	INTEGER ::= 144
id-RL-Set-InformationItem-DM-Rsp	INTEGER ::= 145
id-RL-Set-Information-RL-FailureInd	INTEGER ::= 146
id-RL-Set-Information-RL-RestoreInd	INTEGER ::= 147
id-RL-SetItem-DM-Rprt	INTEGER ::= 148
id-RL-SetItem-DM-Rqst	INTEGER ::= 149
id-RL-SetItem-DM-Rsp	INTEGER ::= 150
id-RNCsWithCellsInTheAccessedURA-List-UL-ST-IndFDD	INTEGER ::= 151
id-ReportCharacteristics	INTEGER ::= 152
id-Reporting-Object-RL-FailureInd	INTEGER ::= 153



id-Reporting-Object-RL-RestoreInd	INTEGER ::= 154
id-S-RNTI	INTEGER ::= 155
id-SAI	INTEGER ::= 156
id-SRNC-ID	INTEGER ::= 157
id-SecondaryCCPCHListIE-CTCH-ResourceRspTDD	INTEGER ::= 158
id-SuccessfulRL-InformationResponse-RL-AdditionFailureFDD	INTEGER ::= 159
id-SuccessfulRL-InformationResponse-RL-SetupFailureFDD	INTEGER ::= 160
id-SuccessfulRL-InformationResponseList-RL-AdditionFailureFDD	INTEGER ::= 161
id-SuccessfulRL-InformationResponseList-RL-SetupFailureFDD	INTEGER ::= 162
id-TransportBearerID	INTEGER ::= 163
id-TransportBearerRequestIndicator	INTEGER ::= 164
id-TransportLayerAddress	INTEGER ::= 165
id-UC-ID	INTEGER ::= 166
id-UL-CCTrCH-AddInformation-RL-ReconfPrepTDD	INTEGER ::= 167
id-UL-CCTrCH-InformationAddItem-RL-ReconfRqstTDD	INTEGER ::= 168
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD	INTEGER ::= 169
id-UL-CCTrCH-InformationAddList-RL-ReconfRqstTDD	INTEGER ::= 170
id-UL-CCTrCH-InformationItem-RL-SetupRqstTDD	INTEGER ::= 171
id-UL-CCTrCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 172
id-UL-CCTrCH-InformationListIE-PhyChReconfRqstTDD	INTEGER ::= 173
id-UL-CCTrCH-InformationListIE-RL-AdditionRspTDD	INTEGER ::= 174
id-UL-CCTrCH-InformationListIE-RL-ReconfReadyTDD	INTEGER ::= 175
id-UL-CCTrCH-InformationListIE-RL-SetupRspTDD	INTEGER ::= 176
id-UL-DPCH-Information-RL-ReconfPrepFDD	INTEGER ::= 177
id-UL-DPCH-Information-RL-ReconfRqstFDD	INTEGER ::= 178
id-UL-DPCH-Information-RL-SetupRqstFDD	INTEGER ::= 179
id-UL-DPCH-InformationItem-PhyChReconfRqstTDD	INTEGER ::= 180
id-UL-DPCH-InformationItem-RL-AdditionRspTDD	INTEGER ::= 181
id-UL-DPCH-InformationItem-RL-SetupRspTDD	INTEGER ::= 182
id-UL-DPCH-InformationAddListIE-RL-ReconfReadyTDD	INTEGER ::= 183
id-UL-SIRTarget	INTEGER ::= 184
id-URA-ID	INTEGER ::= 185
id-URAItem-PagingRqst	INTEGER ::= 186
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureFDD	INTEGER ::= 188
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureFDD	INTEGER ::= 189
id-UnsuccessfulRL-InformationResponse-RL-SetupFailureTDD	INTEGER ::= 190
id-UnsuccessfulRL-InformationResponseList-RL-AdditionFailureFDD	INTEGER ::= 191
id-UnsuccessfulRL-InformationResponseList-RL-SetupFailureFDD	INTEGER ::= 192
id-Active-Pattern-Sequence-Information	INTEGER ::= 193
id-AdjustmentRatio	INTEGER ::= 194
id-All-RLItem-DM-Rqst	INTEGER ::= 195
id-All-RLItem-Set-DM-Rqst	INTEGER ::= 196
id-CauseLevel-RL-AdditionFailureFDD	INTEGER ::= 197
id-CauseLevel-RL-AdditionFailureTDD	INTEGER ::= 198
id-CauseLevel-RL-ReconfFailure	INTEGER ::= 199
id-CauseLevel-RL-SetupFailureFDD	INTEGER ::= 200
id-CauseLevel-RL-SetupFailureTDD	INTEGER ::= 201
id-DCH-InformationResponseListIE-RL-ReconfReadyFDD	INTEGER ::= 202
id-DCH-InformationResponseListIE-RL-ReconfReadyTDD	INTEGER ::= 203
id-DCH-InformationResponseListIE-RL-ReconfRsp	INTEGER ::= 204
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfPrepTDD	INTEGER ::= 205
id-DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD	INTEGER ::= 206
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD	INTEGER ::= 207
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	INTEGER ::= 208
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	INTEGER ::= 209
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	INTEGER ::= 210
id-DL-CodeInformationListIE-RL-ReconfResp	INTEGER ::= 211
id-DL-DPCH-InformationAddListIE-RL-ReconfReadyTDD	INTEGER ::= 212
id-DL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD	INTEGER ::= 213
id-DL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD	INTEGER ::= 214
id-DSCH-AddList-RL-ReconfPrepTDD	INTEGER ::= 215
id-DSCH-Add-RL-ReconfPrepFDD	INTEGER ::= 216
id-DSCH-DeleteList-RL-ReconfPrepTDD	INTEGER ::= 217
id-DSCH-Delete-RL-ReconfPrepFDD	INTEGER ::= 218
id-DSCH-InformationItem-RL-SetupRqstFDD	INTEGER ::= 219
id-DSCH-InformationListIE-RL-AdditionRspTDD	INTEGER ::= 220
id-DSCH-InformationListIEs-RL-SetupRspTDD	INTEGER ::= 221
id-DSCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 222
id-DSCH-InformationResponseItem-RL-SetupRspFDD	INTEGER ::= 223
id-DSCH-InformationResponseListIE-RL-AdditionFailureFDD	INTEGER ::= 224
id-DSCH-InformationResponseListIE-RL-SetupFailureFDD	INTEGER ::= 225
id-DSCH-Information-RL-SetupRqstFDD	INTEGER ::= 226
id-DSCH-ModifyList-RL-ReconfPrepTDD	INTEGER ::= 227
id-DSCH-Modify-RL-ReconfPrepFDD	INTEGER ::= 228
id-DSCHToBeAddedOrModifiedIE-RL-ReconfReadyFDD	INTEGER ::= 229
id-DSCHToBeAddedOrModifiedList-RL-ReconfReadyTDD	INTEGER ::= 230
id-GA-AccessPointPosition	INTEGER ::= 231
id-GA-Cell	INTEGER ::= 232

id-GeneralCauseItem-RL-AdditionFailureFDD	INTEGER ::= 233
id-GeneralCauseItem-RL-AdditionFailureTDD	INTEGER ::= 234
id-GeneralCauseItem-RL-ReconfFailure	INTEGER ::= 235
id-GeneralCauseItem-RL-SetupFailureFDD	INTEGER ::= 236
id-GeneralCauseItem-RL-SetupFailureTDD	INTEGER ::= 237
id-MeasurementAvailableItem-DedicatedMeasurementReport	INTEGER ::= 238
id-MeasurementnotAvailableItem-DedicatedMeasurementReport	INTEGER ::= 239
id-Neighbouring-CellInformationItem-RL-AdditionFailureFDD	INTEGER ::= 240
id-Neighbouring-CellInformationItem-RL-AdditionRsp	INTEGER ::= 241
id-RACH-InfoForDRNCSelectedPRACH-CTCH-ResourceRspFDD	INTEGER ::= 242
id-RACH-InfoForDRNCSelectedPRACH-CTCH-ResourceRspTDD	INTEGER ::= 243
id-RLItem-RL-FailureInd	INTEGER ::= 244
id-RLItem-RL-RestoreInd	INTEGER ::= 245
id-RL-SetItem-RL-FailureInd	INTEGER ::= 246
id-RL-SetItem-RL-RestoreInd	INTEGER ::= 247
id-RLSpecificCauseItem-RL-AdditionFailureFDD	INTEGER ::= 248
id-RLSpecificCauseItem-RL-AdditionFailureTDD	INTEGER ::= 249
id-RLSpecificCauseItem-RL-ReconfFailure	INTEGER ::= 250
id-RLSpecificCauseItem-RL-SetupFailureFDD	INTEGER ::= 251
id-RLSpecificCauseItem-RL-SetupFailureTDD	INTEGER ::= 252
id-RNCsWithCellsInTheAccessedURA-List-CTCH-ResourceRspFDD	INTEGER ::= 253
id-RNCsWithCellsInTheAccessedURA-List-CTCH-ResourceRspTDD	INTEGER ::= 254
id-Transmission-Gap-Pattern-Sequence-Information	INTEGER ::= 255
id-UL-CCTrCH-DeleteInformation-RL-ReconfPrepTDD	INTEGER ::= 256
id-UL-CCTrCH-ModifyInformation-RL-ReconfPrepTDD	INTEGER ::= 257
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD	INTEGER ::= 258
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	INTEGER ::= 259
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	INTEGER ::= 260
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	INTEGER ::= 261
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD	INTEGER ::= 262
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD	INTEGER ::= 263
id-UL-DPCH-InformationDeleteListIE-RL-ReconfReadyTDD	INTEGER ::= 264
id-UL-DPCH-InformationModifyListIE-RL-ReconfReadyTDD	INTEGER ::= 265
id-UnsuccessfulRL-InformationResponse-RL-AdditionFailureTDD	INTEGER ::= 266
id-USCH-AddList-RL-ReconfPrepTDD	INTEGER ::= 267
id-USCH-DeleteList-RL-ReconfPrepTDD	INTEGER ::= 268
id-USCH-InformationListIE-RL-AdditionRspTDD	INTEGER ::= 269
id-USCH-InformationListIEs-RL-SetupRspTDD	INTEGER ::= 270
id-USCH-InformationList-RL-SetupRqstTDD	INTEGER ::= 271
id-USCH-ModifyList-RL-ReconfPrepTDD	INTEGER ::= 272
id-USCHToBeAddedOrModifiedList-RL-ReconfReadyTDD	INTEGER ::= 273
id-DL-Physical-Channel-Information-RL-SetupRqstTDD	INTEGER ::= 274
id-UL-Physical-Channel-Information-RL-SetupRqstTDD	INTEGER ::= 275
id-ClosedLoopModel1-SupportIndicator	INTEGER ::= 276
id-ClosedLoopMode2-SupportIndicator	INTEGER ::= 277
id-RNCsWithCellsInTheAccessedURA-List-UL-ST-IndTDD	INTEGER ::= 278
id-STTD-SupportIndicator	INTEGER ::= 279
<u>id-CNOriginatedPage-PagingRqst</u>	<u>INTEGER ::= xxx</u>

END

## CHANGE REQUEST

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

**TS 25.423 CR 221**

Current Version: **3.3.0**

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

↑ CR number as allocated by MCC support team

For submission to: **RAN#10**

list expected approval meeting # here  
↑

For approval

For information

Strategic

Non-strategic

(for SMG use only)

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

**Proposed change affects:**

(at least one should be marked with an X)

(U)SIM

ME

UTRAN / Radio

Core Network

**Source:** R-WG3

**Date:** 10/2000

**Subject:** Common Transport Channel Resources Initialisation Clarification

**Work item:**

**Category:**

(only one category  
Shall be marked  
With an X)

- F Correction
- A Corresponds to a correction in an earlier release
- B Addition of feature
- C Functional modification of feature
- D Editorial modification

**Release:**

Phase 2	<input type="checkbox"/>
Release 96	<input type="checkbox"/>
Release 97	<input type="checkbox"/>
Release 98	<input type="checkbox"/>
Release 99	<input checked="" type="checkbox"/>
Release 00	<input type="checkbox"/>

**Reason for change:**

The common transport channel resource initialisation procedure needs to clearly define when optional parameters are included within messages.

If this CR is not approved the specification will not be clear on the inclusion of optional parameters.

**Clauses affected:** 8.4.1.2

**Other specs**

**Affected:**

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

**Other comments:**

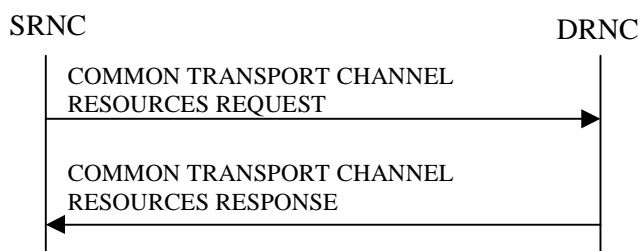
## 8.4.1 Common Transport Channel Resources Initialisation

### 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 UE context in the DRNC.

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

### 8.4.1.2 Successful Operation



**Figure 1: 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.

Upon reception of the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall respond by sending a COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message to the SRNC.

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 and include the *Binding Identity* 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 for the 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.

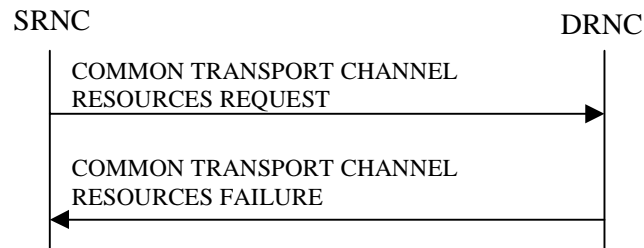
If there exists multiple Secondary CCPCHs in the cell indicated by the *C-ID* IE or if no *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCE REQUEST message in the cell where the UE is located and the DRNC decides to use the DRNC selected Secondary CCPCH instead of UE selected Secondary CCPCH, the *FACH Info for DRNC Selected S-CCPCH* IE group shall be included in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. If the DRNC includes the *FACH Info for DRNC Selected S-CCPCH* IE group, then it shall also include the *FACH Priority Indicator* IE and *FACH Initial Window Size* IE for each priority class for this Secondary CCPCH.

If the *C-ID* IE is not included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message or if the DRNC does not include the *FACH Info for DRNC Selected S-CCPCH* IE group in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message, the DRNC shall include the *FACH Info for UE Selected S-CCPCH* IE group in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. The DRNC shall include the *FACH Priority Indicator* IE and *FACH Initial Window Size* IE in the *FACH Info for UE Selected S-CCPCH* IE group 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 there exists multiple RACHs in the cell where the UE is located and the DRNC decides to use the DRNC selected PRACH instead of the UE selected PRACH, the *RACH Info for DRNC Selected PRACH* IE group shall be included in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message. [TDD – If the DRNC has defined a non-default midamble within the cell for this selected RACH, it shall include the *PRACH Midamble* IE in the COMMON TRANSPORT CHANNEL RESOURCES RESPONSE message with the selected midamble value.]

If the *C-ID* IE is included in the COMMON TRANSPORT CHANNEL RESOURCES REQUEST message, the DRNC shall include the *URA ID* IE of the cell identified by the received *C-ID* IE, the *Multiple URA Indicator* IE indicating whether or not the cell belongs to multiple URAs, and the RNC Identity of all other RNCs that are having at least one cell within the URA in the cell.

#### 8.4.1.3 Unsuccessful Operation



**Figure 2: 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.

Typical cause values are:

**Radio Network Layer Causes:**

- RACH/FACH/CPCH not Supported.

#### 8.4.1.4 Abnormal Conditions

-

## CHANGE REQUEST

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

**25.423**

**CR 228r2**

Current Version: **3.3.0**

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

↑ CR number as allocated by MCC support team

For submission to: **TSG-RAN#10**

list expected approval meeting # here ↑

for approval  
for information

<b>X</b>

Strategic  
non-strategic


(for SMG use only)

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

**Proposed change affects:**

(at least one should be marked with an X)

(U)SIM

ME

UTRAN / Radio

Core Network

**Source:**

R-WG3

**Date:**

November 2000

**Subject:**

Correction for Tabular format

**Work item:**

**Category:**

(only one category shall be marked with an X)

- F Correction
- A Corresponds to a correction in an earlier release
- B Addition of feature
- C Functional modification of feature
- D Editorial modification

**Release:**

- Phase 2
- Release 96
- Release 97
- Release 98
- Release 99
- Release 00

**Reason for change:**

**CR228r2:** The following three changes are reflected into the CR228r1.

- Reference of BLER was corrected. (Changed to 9.2.1.4)
- Reference of Block STTD Indicator was removed. (No changes from the 25.423v3.0.0)
- The change of the range of FACH Info for UE Selected S-CCPCHs in COMMON TRANSPORT CHANNEL RESOURCES RESPONSE TDD message (9.1.36.2) was undone (highlighted in light blue). (No changes from the 25.423v3.0.0)

**CR228r1:** the changes from the previous CR are highlighted in yellow.

In the previous CR, Criticality and Assigned Criticality columns for CHOICE tags were filled. But some of these changes are conflicted with the decision of the last meeting (Criticality on each CHOICE tags are not needed). Therefore, changes from the current specification related to CHOICE tags are undone if it is conflicted with the agreement.

There are several minor errors in the tabular format. For example, IE type reference, Criticality or Presence are missing in their columns. This CR proposes to correct these mistakes. Furthermore this CR also corrects other kinds of mistakes described below.

9.1.3.1 RADIO LINK SETUP REQUEST (FDD)

- Blank row between Diversity mode IE and SSdT Cell ID length IE is deleted. (revision is invisible)

9.1.8.1 RADIO LINK ADDITION FAILURE (FDD)

- The indentation of Successful RL Information Response IE is corrected.

9.1.36.2 COMMON TRANSPORT CHANNEL RESOURCES RESPONSE (TDD)

- The range of "FACH Info for UE Selected S-CCPCHs" is corrected. (see R3-001617, CR106r2)

**Clauses affected:** 9.1.3.1, 9.1.3.2, 9.1.4.1, 9.1.4.2, 9.1.5.1, 9.1.6.1, 9.1.7.1, 9.1.7.2, 9.1.8.1, 9.1.8.2, 9.1.11.1, 9.1.11.2, 9.1.12.1, 9.1.12.2, 9.1.13, 9.1.16.1, 9.1.16.2, 9.1.17, 9.1.20, 9.1.24.1, 9.1.24.2, 9.1.31, 9.1.35, 9.1.36.1, 9.1.36.2, 9.1.38

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

**Other comments:**



help.doc

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

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## 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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
SRNC-Id	M		RNC-Id 9.2.1.50		YES	reject
S-RNTI	M		9.2.1.53		YES	reject
D-RNTI	O		9.2.1.24		YES	reject
Allowed Queuing Time	O		9.2.1.2		YES	reject
<b>UL DPCH Information</b>		1			YES	reject
>UL Scrambling Code	M		9.2.2.53		–	
>Min UL Channelisation Code Length	M		9.2.2.25		–	
>Max Number of UL DPDCHs	C – CodeLen		9.2.2.24		–	
>Puncture Limit	M		9.2.1.46	For the UL.	–	
>TFCS	M		TFCS for the UL 9.2.1.63		–	
>UL DPCCH Slot Format	M		9.2.2.52		–	
>Uplink SIR Target	O		Uplink SIR 9.2.1.69		–	
>Diversity mode	M		9.2.2.8		–	
>SSDT Cell Identity Length	O		9.2.2.41		–	
>S Field Length	O		9.2.2.36		–	
<b>DL DPCH Information</b>		1			YES	reject
>TFCS	M		TFCS for the DL. 9.2.1.63		–	
>DL DPCH Slot Format	M		9.2.2.9		–	
>Number of DL channelisation codes	M		<a href="#">9.2.2.26A</a>		–	
>TFCI Signalling Mode	M		9.2.2.46		–	
>TFCI Presence	C- SlotFormat		9.2.1.55		–	
>Multiplexing Position	M		9.2.2.26		–	
<b>&gt;Power Offset Information</b>		1			–	
>>PO1	M		Power Offset 9.2.2.30	Power offset for the TFCI bits.	–	
>>PO2	M		Power Offset 9.2.2.30	Power offset for the TPC bits.	–	
>>PO3	M		Power Offset 9.2.2.30	Power offset for the pilot bits.	–	
>FDD TPC Downlink Step Size	M		9.2.2.16		–	
>Limited Power Increase	M		9.2.1.33		–	
<b>DCH Information</b>		1..<maxno ofDCHs>			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxno ofDCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>TrCh Source Statistics	M		9.2.1.65		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Descriptor						
>>Transport Format Set	M		9.2.1.64	For the UL.	–	
>>Transport Format Set	M		9.2.1.64	For the DL.	–	
>>BLER	M		<a href="#">9.2.1.39.2.1.4</a>	For the UL.	–	
>>BLER	M		<a href="#">9.2.1.39.2.1.4</a>	For the DL.	–	
>>Allocation/Retention Priority	M		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		–	
<b>DSCH Information</b>		0..1			YES	reject
<b>&gt;DSCH Info</b>		1..<maxno ofDSCHs>			EACH	reject
>>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
>>TrCh Source Statistics Descriptor	M		<a href="#">9.2.1.65</a>		–	
>>Transport Format Set	M		<a href="#">9.2.1.64</a>	For DSCH	–	
>>Allocation/Retention Priority	M		<a href="#">9.2.1.1</a>		–	
>>Scheduling Priority Indicator	M		<a href="#">9.2.1.51A</a>		–	
>>BLER	M		<a href="#">9.2.1.4</a>		–	
>PDSCH RL ID	M		RL ID <a href="#">9.2.1.49</a>			
>TFCS	M		<a href="#">9.2.1.63TF</a> <del>CS for the DL</del>	For DSCH	–	
<b>RL Information</b>		1...<maxn oofRLs>			EACH	notify
>RL ID	M		9.2.1.49		–	
>C-Id	M		9.2.1.6		–	
>First RLS Indicator	M		<a href="#">9.2.2.16A</a>		–	
>Frame Offset	M		9.2.1.30		–	
>Chip Offset	M		9.2.2.1		–	
>Propagation Delay	O		9.2.2.33		–	
>Diversity Control Field	C – NotFirstRL		9.2.2.6		–	
>Initial DL TX Power	C_ifAlone		DL Power 9.2.2.10		–	
>Primary CPICH Ec/No	C_ifAlone		9.2.2.32		–	
>SSDT Cell Identity	O		9.2.2.40		–	
>Transmit Diversity Indicator	C – Diversity mode		9.2.2.50		–	
Transmission Gap Pattern Sequence Information	O		<a href="#">9.2.2.47A</a>		YES	reject
Active Pattern Sequence Information	O		<a href="#">9.2.2.A</a>		YES	reject

Condition	Explanation
CodeLen	This IE is present only if "Min UL Channelisation Code length" equals to 4
SlotFormat	This IE is only present if the DL DPCH Slot Format is equal to any of the values 12 to 16.
NotFirstRL	This IE is present only if the RL is not the first one in the RL Information.
Diversity mode	This IE is present unless <i>Diversity Mode</i> IE in <i>UL DPCH Information</i> group is "none"
C_Ifalone	Either Initial DL TX Power IE or Primary CPICH Ec/No IE shall be present.

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

### 9.1.3.2 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		–	
SRNC-Id	M		RNC-Id 9.2.1.50		YES	reject
S-RNTI	M		9.2.1.53		YES	reject
D-RNTI	O		9.2.1.24		YES	reject
Allowed Queuing Time	O		9.2.1.2		YES	reject
<b>UL Physical Channel Information</b>		1			<b>YESEACH</b>	reject
>Maximum Timeslot per frame	M		9.2.3.3A	For the UL		
>Minimum Spreading Factor	M		9.2.3.4A	For the UL		
>Maximum number of UL physical channels per timeslot	M		9.2.3.3B			
<b>DL Physical Channel Information</b>		1			<b>YESEACH</b>	reject
>Maximum Timeslot per frame	M		9.2.3.3A	For the DL		
>Minimum Spreading Factor	M		9.2.3.4A	For the DL		
>Maximum number of DL physical channels per frame	M		9.2.3.3C			
<b>UL CCTrCH Information</b>		0..<maxno of CCTrCHs>		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		9.2.1.46		–	
<b>DL CCTrCH Information</b>		0..<maxno of CCTrCHs>		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		–	
>TDD TPC Downlink Step Size	M		9.2.3.10		–	
<b>&gt;TPC CCTrCH List</b>		1 to <maxno CCTrCHs>		List of uplink CCTrCH which provide TPC	–	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.2		–	
<b>DCH Information</b>		0..<maxno of DCHs>			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxno of DCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>CCTrCH ID	M		9.2.3.2	UL CCTrCH in which the DCH is mapped	–	

>>CCTrCH ID	M		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		<a href="#">9.2.1.39.2.1.4</a>	For the UL.	–	
>>BLER	M		<a href="#">9.2.1.39.2.1.4</a>	For the DL.	–	
>>Allocation/Retention Priority	M		9.2.1.1		–	
>>Frame Handling Priority	M		9.2.1.29		–	
>>QE-Selector	C-CoordDCH		9.2.1.46A		–	
<b>DSCH Information</b>		0 to <maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
>CCTrCH ID	M		<a href="#">9.2.3.2</a>	DL CCTrCH in which the DSCH is mapped	–	
>TrCh Source Statistics Descriptor	M		<a href="#">9.2.1.65</a>		–	
>Transport Format Set	M		<a href="#">9.2.1.64</a>	For DSCH	–	
>Allocation/Retention Priority	M		<a href="#">9.2.1.1</a>		–	
>Scheduling Priority Indicator	M		<a href="#">9.2.1.51A</a>		–	
>BLER	M		<a href="#">9.2.1.4</a>		–	
<b>USCH Information</b>		0 to <maxnoof USCHs>			GLOBAL	reject
>USCH ID	M		<a href="#">9.2.3.14</a>		–	
>CCTrCH ID	M		<a href="#">9.2.3.2</a>	UL CCTrCH in which the USCH is mapped	–	
>TrCh Source Statistics Descriptor	M		<a href="#">9.2.1.65</a>		–	
>Transport Format Set	M		<a href="#">9.2.1.64</a>	For USCH	–	
>Allocation/Retention Priority	M		<a href="#">9.2.1.1</a>		–	
>Scheduling Priority Indicator	M		<a href="#">9.2.1.51A</a>		–	
<b>&gt;RB Info</b>		1 to <maxnoof RB>		All Radio Bearers using this USCH	–	
>>RB Identity	M		<a href="#">9.2.3.5B</a>		–	
<b>RL Information</b>		1			YES	reject
>RL ID	M		9.2.1.49		–	
>C-Id	M		9.2.1.6		–	
>Frame Offset	M		9.2.1.30		–	
>Primary CCPCH RSCP	O		9.2.3.5		–	
<b>&gt;Time slot ISCP Info</b>		0..<maxno ofDLts>			–	
>>Time slot	M		<a href="#">9.2.1.56</a>		–	
>>DL Timeslot ISCP	M		9.2.3.12		–	

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

<b>Range bound</b>	<b>Explanation</b>
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofUSCHs	Maximum number of USCHs for one UE.
MaxnoofRBs	Maximum number of Radio Bearers for one UE.
MaxnoofCCTrCHs	Maximum number of CCTrCH for one UE.
MaxnoofDLts	Maximum number of Downlink time slots per Radio Link

## 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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
<b>RL Information Response</b>		1..<maxno ofRLs>			EACH	ignore
>RL ID	M		9.2.1.49		–	
>RL Set ID	M		9.2.2.35		–	
>URA ID	M		9.2.1.70		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		<a href="#">9.2.1.5A</a>		–	
>UTRAN Access Point Position	O		<a href="#">9.2.1.70A</a>		–	
>RSSI	M		9.2.2.35A		–	
<b>&gt;Secondary CCPCH Info</b>		0..1			–	
>>FDD S-CCPCH Offset	M		9.2.2.15	Corresponds to: $T_{S-CCPCH,k}$ , see ref. [8]	–	
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>TFCS	M		9.2.1.63	For the DL.	–	
>>Secondary CCPCH Slot Format	M		9.2.2.38		–	
>>TFCI presence	C - SlotFormat		9.2.1.55		–	
>>Multiplexing Position	M		9.2.2.26		–	
>>STTD Indicator	M		9.2.2.44		–	
<b>&gt;&gt;FACH/PCH Information</b>		1 .. <maxFACHcount+1>			–	
>>>TFS			9.2.1.64	For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
<b>&gt;&gt;Scheduling Information</b>		1			–	
>>>IB_SG_REP	M		9.2.2.4		–	
<b>&gt;&gt;&gt;Segment Information</b>		1.. <maxIBSEG>			–	
>>>>IB_SG_POS	M		9.2.2.20		–	
<b>&gt;DL Code Information</b>		1.. <maxnoofDLCodes>			–	
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>Transmission Gap Pattern Sequence Information Response	O		<a href="#">9.2.2.47B</a>		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>Diversity Indication	C-NotFirstRL		9.2.2.7		–	
>CHOICE <i>diversity Indication</i>	<b>M</b>					
>>Combining					YES	ignore
>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	–	
>>Non Combining or First RL					YES	ignore
>>>DCH Information Response		0..<maxno ofDCHs>		Only one DCH per set of co-ordinated DCHs shall be included	–	
>>>>DCH ID	M		9.2.1.16		–	
>>>>Binding ID	M		9.2.1.3		–	
>>>>Transport Layer Address	M		9.2.1.62		–	
>SSDT Support Indicator	M		9.2.2.43		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Closed loop timing adjustment mode	O		<a href="#">9.2.2.3A</a>		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.2.10		–	
>Minimum DL TX Power	M		DL Power 9.2.2.10		–	
>DSCH Information Response		0..1			YES	ignore
>>DSCH Information		1..<Maxno ofDSCHs>			–	
>>>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
>>>>Priority Indicator		1..16		Provide Information for each priority class used	–	
>>>>Scheduling Priority Indicator	M		<a href="#">9.2.1.51A</a>	For DSCH	–	
>>>>MAC-c/sh SDU Length		1..<MaxNb MAC-c/shSDUL ength>			–	
>>>>>MAC-c/sh SDU Length	M		<a href="#">9.2.1.34</a>		–	
>>>>Binding ID	M		<a href="#">9.2.1.3</a>		–	
>>>>Transport Layer Address	M		<a href="#">9.2.1.62</a>		–	
>>PDSCH code mapping	M		<a href="#">9.2.2.27A</a>	PDSCH code mapping to be used	–	
>Neighbouring Cell Information		0..<maxnoof neighbourin gRNCs>			EACH	ignore
>>RNC-Id	M		9.2.1.50		–	
>>CN PS Domain Identifier	O		9.2.1.12		–	
>>CN CS Domain Identifier	O		9.2.1.11		–	



IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
<b>&gt;&gt;Per FDD Cell Information</b>		<i>0..&lt;maxno ofFDDneighbours&gt;</i>			=	
>>>C-Id	M		9.2.1.6		=	
>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	-	
>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]	=	
>>>Frame Offset	O		9.2.1.30		-	
>>>Primary Scrambling Code	M		9.2.1.45		-	
>>>Primary CPICH Power	O		9.2.1.44		-	
>>>Cell Individual Offset	O		9.2.1.7		=	
>>>Tx Diversity Indicator	M		9.2.2.50		=	
>>>STTD Support Indicator	O		9.2.2.45		=	
>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2		=	
>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3		=	
<b>&gt;&gt;Per TDD Cell Information</b>		<i>0..&lt;maxno ofTDDneighbours&gt;</i>			=	
>>>C-Id	M		9.2.1.6		=	
>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	-	
>>>Frame Offset	O		9.2.1.30		-	
>>>Cell Parameter ID	M		9.2.1.8		-	
>>>Sync Case	M		9.2.1.54		-	
>>>Time Slot	C-Case1		9.2.1.56		-	
>>>SCH Time Slot	C-Case2		9.2.1.51		-	
>>>Block STTD Indicator	M				-	
>>>Cell Individual Offset	O		9.2.1.7		-	
>>>DPCH Constant Value	O		9.2.1.23		-	
>>>PCCPCH Power	O		9.2.1.43		-	
Uplink SIR Target	O		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
NotFirstRL	The IE is present only if the RL is not the first RL in the RL Information
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

<b>Range bound</b>	<b>Explanation</b>
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell.
MaxnoofTDDneighbours	Maximum number of neighbouring TDD cell for one cell.
MaxFACHCount	Maximum number of FACH's mapped onto secondary CCPCH's
MaxIBSEG	Maximum number of segments for one Information Block

### 9.1.4.2 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		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
<b>RL Information Response</b>		1			YES	ignore
>RL ID	M		9.2.1.49		–	
>URA ID	M		9.2.1.70		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
<b>&gt;UL Interference per Time Slot</b>		1 .. <maxnoof ULts>		Interference Level for each UL time slot within the Radio Link	–	
>>Time Slot	M		9.2.1.56		–	
>>UL Timeslot ISCP	M		9.2.3.13A		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.2.10		–	
>Minimum DL TX Power	M		DL Power 9.2.2.10		–	
>Timing Adjustment Required	M		9.2.3.12A		–	
<b>&gt;UL CCTrCH Information</b>		0..<maxno ofCCTrCHs>		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
<b>&gt;&gt;UL DPCH Information</b>		0..1			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
<b>&gt;&gt;&gt;UL Timeslot Information</b>		1 to <maxnoOf TS			–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift and Burst Type	M		9.2.3.4		–	
>>>>TFCI Presence	M		9.2.1.55		–	
<b>&gt;&gt;&gt;&gt;UL Code Information</b>		1 to <maxnoOf DPCH>			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code	M		9.2.3.8		–	
<b>&gt;DL CCTrCH Information</b>		0..<maxno ofCCTrCHs>		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
<b>&gt;&gt;DL DPCH Information</b>		0..1			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>>TDD DPCH Offset	M		9.2.3.8A*		-	
>>>DL Timeslot Information		1 to <maxnoOf TS			-	
>>>>Time Slot	M		9.2.1.56		-	
>>>>Midamble Shift and Burst Type	M		9.2.3.4		-	
>>>>TFCI Presence	M		9.2.1.55		-	
>>>>DL Code Information		1 to <maxnoOf DPCH>			-	
>>>>>DPCH ID	M		9.2.3.3		-	
>>>>>TDD Channelisation Code	M		9.2.3.8		-	
>DCH Information Response		1..<maxno ofDCHs>		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M		9.2.1.16		-	
>>Binding ID	M		9.2.1.3		-	
>>Transport Layer Address	M		9.2.1.62		-	
>DSCH Information Response		0 .. <Maxnoof DSCHs>			GLOBAL	ignore
>>DSCH ID	M		9.2.1.26A		-	
>>Priority Indicator		1..16		Provide Information for each priority class used	-	
>>>Scheduling Priority Indicator	M		9.2.1.51A	For DSCH	-	
>>>>MAC-c/sh SDU Length		1..<MaxNb MAC-c/shSDUL ength>			-	
>>>>>MAC-c/sh SDU Length	M		9.2.1.34		-	
>>Binding ID	M		9.2.1.3		-	
>>Transport Layer Address	M		9.2.1.62		-	
>>Transport Format Management	M		9.2.3.13		-	
>USCH Information Response		0 .. <Maxnoof USCHs>			GLOBAL	ignore
>>USCH ID	M		9.2.3.14		-	
>>Binding ID	M		9.2.1.3		-	
>>Transport Layer Address	M		9.2.1.62		-	
>>Transport Format Management	M		9.2.3.13		-	
>Neighbouring Cell Information	O	0..<maxno ofneighbo uringRNCs >			EACH	ignore
>>RNC-Id	M		9.2.1.50		-	
>>CN PS Domain Identifier	O		9.2.1.12		-	
>>CN CS Domain Identifier	O		9.2.1.11		-	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
<b>&gt;&gt;Per FDD Cell Information</b>		<i>0..&lt;maxno ofFDDneighours&gt;</i>			=	
>>>C-Id	M		9.2.1.6		-	
>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	-	
>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]	-	
>>>Frame Offset	O		9.2.1.30		-	
>>>Primary Scrambling Code	M		9.2.1.45		-	
>>>Cell Individual Offset	O		9.2.1.7		-	
>>>Primary CPICH Power	O		9.2.1.44		-	
>>>Tx Diversity Indicator	M		9.2.2.50		=	
>>>STTD Support Indicator	O		9.2.2.45		-	
>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2		-	
>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3		-	
<b>&gt;&gt;Per TDD Cell Information</b>		<i>0..&lt;maxno ofTDDneighours&gt;</i>			-	
>>>C-Id	M		9.2.1.6		-	
>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	-	
>>>Frame Offset	O		9.2.1.30		-	
>>>Cell Parameter ID	M		9.2.1.8		-	
>>>Sync Case	M		9.2.1.54		-	
>>>Time Slot	C-Case1		9.2.1.56		-	
>>>SCH Time Slot	C-Case2		9.2.1.51		-	
>>>Block STTD Indicator	M				-	
>>>Cell Individual Offset	O		9.2.1.7		-	
>>>DPCH Constant Value	O		9.2.1.23		-	
>>>PCCPCH Power	O		9.2.1.43		-	
Uplink SIR Target	M		Uplink SIR 9.2.1.69		-	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.

<b>Range bound</b>	<b>Explanation</b>
MaxnoofDPCHs	Maximum number of DPCHs for one CCTrCH.
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofUSCHs	Maximum number of USCHs for one UE.
MaxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell
MaxnoofTDDneighbours	Maximum number of neighbouring TDD cell for one cell
MaxnoofCCTrCHs	Maximum number of CCTrCH for one UE.
MaxnoofULts	Maximum number of Uplink time slots per Radio Link
MaxnoofTS	Maximum number of Timeslots for a UE

## 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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
D-RNTI	O		9.2.1.24		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
CHOICE <i>cause level</i>	M				YES	Ignore
>General					Yes	Ignore
>>Cause	M		9.2.1.5			
>RL specific					Yes	Ignore
>>Unsuccessful RL Information Response		1...<maxno ofRLs>			EACH	Ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
>>Successful RL Information Response		0..<maxno ofRLs-1>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>RL Set ID	M		9.2.2.35		–	
>>>URA ID	M		9.2.1.70		–	
>>>SAI	M		9.2.1.52		–	
>>>RSSI	M		9.2.2.35A		–	
>>>DL Code Information		1..<maxno ofDL Codes			GLOBAL	ignore
>>>>DL Scrambling Code	M		9.2.2.8		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>Transmission Gap Pattern Sequence Information Response	O		9.2.2.47B		–	
>>>Diversity Indication	M		9.2.2.7		–	
>>>CHOICE <i>diversity Indication</i>	M				–	
>>>>Combining					YES	ignore
>>>>>RL ID	M		9.2.1.49	Reference RL ID for the combining	–	
>>>>Non Combining First RL					YES	ignore
>>>>>DCH Information Response		0..<maxno ofDCHs>		Only one DCH per set of co-ordinated DCHs shall be included.	–	
>>>>>>DCH ID	M		9.2.1.16		–	
>>>>>>Binding ID	M		9.2.1.3		–	
>>>>>>Transport Layer Address	M		9.2.1.62		–	
>>>SSDT Support Indicator	M		9.2.2.43		–	
>>>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Closed loop timing adjustment mode	O		9.2.2.3A		–	
>>>Maximum Allowed	M		9.2.1.35		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
UL Tx Power						
>>>Maximum DL TX Power	M		DL Power 9.2.2.10		–	
>>>Minimum DL TX Power	M		DL Power 9.2.2.10		–	
>>> <b>DSCH Information Response</b>		<i>0..&lt;maxno of DSCHs&gt;</i>			GLOBAL	ignore
>>>>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
>>>>Binding ID	M		<a href="#">9.2.1.3</a>		–	
>>>>Transport Layer Address	M		<a href="#">9.2.1.62</a>		–	
>>> <b>Neighbouring Cell Information</b>	O	<i>0..&lt;maxno of neighbourin gRNCs&gt;</i>			EACH	ignore
>>>>RNC-Id	M		9.2.1.50		–	
>>>>CN PS Domain Identifier	O		9.2.1.12		–	
>>>>CN CS Domain Identifier	O		9.2.1.11		–	
>>>> <b>Per FDD Cell Information</b>		<i>0..&lt;maxno of FDDneig hbours&gt;</i>			–	
>>>>>C-Id	M		9.2.1.6		–	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	–	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]	–	
>>>>>Frame Offset	O		9.2.1.30		–	
>>>>>Primary Scrambling Code	M		9.2.1.45		–	
>>>>>Primary CPICH Power	O		9.2.1.44		–	
>>>>>Cell Individual Offset	O		9.2.1.7		–	
>>>>>Tx Diversity Indicator	M		9.2.2.50		–	
>>>>>STTD Support Indicator	O		9.2.2.45		–	
>>>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2		–	
>>>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3		–	
>>>> <b>Per TDD Cell Information</b>		<i>0..&lt;maxno of TDDneig hbours&gt;</i>			–	
>>>>>C-Id	M		9.2.1.6		–	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	–	
>>>>>Frame Offset	O		9.2.1.30		–	
>>>>>Cell Parameter ID	M		9.2.1.8		–	
>>>>>Sync Case	M		9.2.1.54		–	
>>>>>Time Slot	C-Case1		9.2.1.56		–	
>>>>>SCH Time Slot	C-Case2		9.2.1.51		–	
>>>>>Block STTD Indicator	M				–	
>>>>>Cell Individual Offset	O		9.2.1.7		–	
>>>>>DPCH	O		9.2.1.23		–	



IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Constant Value						
>>>>PCCPCH Power	O		9.2.1.43		-	
Uplink SIR Target	O		Uplink SIR 9.2.1.69		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.

Range bound	Explanation
MaxnoofRLs	Maximum number of RLs for one UE.
MaxnoofDCHs	Maximum number of DCHs for one UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDneighbours	Maximum number of neighbouring FDD cell for one cell
MaxnoofTDDneighbours	Maximum number of neighbouring TDD cell for one cell

### 9.1.5.2 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		-	
CHOICE <i>cause level</i>	<b>M</b>				<b>YES</b>	<b>Ignore</b>
> <i>General</i>					Yes	Ignore
>> <i>Cause</i>	M		<b>9.2.1.5</b>		<b>=</b>	
> <i>RL specific</i>					Yes	ignore
>> <b>Unsuccessful RL Information Response</b>		1			YES	ignore
>>>RL ID	M		9.2.1.49		-	
>>> <i>Cause</i>	M		9.2.1.5		-	
Criticality Diagnostics	O		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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Uplink SIR Target	M		Uplink SIR 9.2.1.69		YES	reject
<b>RL Information</b>		<i>1..&lt;maxnoofRLs-1&gt;</i>			EACH	notify
>RL ID	M		9.2.1.49		–	
>C-Id	M		9.2.1.6		–	
>Frame Offset	M		9.2.1.30		–	
>Chip Offset	M		9.2.2.1		–	
>Diversity Control Field	M		9.2.2.6		–	
>Primary CPICH Ec/No	O		9.2.2.32		–	
>SSDT Cell Identity	O		9.2.2.40			
>Transmit Diversity Indicator	O		9.2.2.50		–	
Active Pattern Sequence Information	O		<a href="#">9.2.2A</a>	Either all the already active Transmission Gap Sequence(s) are addressed (Transmission Gap Pattern sequence shall overlap with the existing one) or none of the transmission gap sequences is activated.	YES	reject

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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
<b>RL Information</b>		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		9.2.2.6		–	
>Primary CCPCH RSCP	O		9.2.3.5		–	
> <b>Time slot ISCP Info</b>		0..<maxnoofDLts>			–	
>>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

## 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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
<b>RL Information Response</b>		1..<maxnoof RLS-1>			EACH	ignore
>RL ID	M		9.2.1.49		–	
>RL Set ID	M		9.2.2.35		–	
>URA ID	M		9.2.1.70		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		<a href="#">9.2.1.5A</a>		–	
>UTRAN Access Point Position	O		<a href="#">9.2.1.70A</a>		–	
>RSSI	M		9.2.2.35A		–	
<b>&gt;Secondary CCPCH Info</b>		0..1			–	
>>FDD S-CCPCH Offset	M		9.2.2.15	Corresponds to: $T_{S-CCPCH,k}$ , see ref. [8]	–	
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>TFCS	M		9.2.1.63	For the DL.	–	
>>Secondary CCPCH Slot Format	M		9.2.2.38		–	
>>TFCI presence	C - SlotFormat		9.2.1.55		–	
>>Multiplexing Position	M		9.2.2.26		–	
>>STTD Indicator	M		9.2.2.44		–	
<b>&gt;&gt;FACH/PCH Information</b>		1 .. <maxFACHcount+1>			–	
>>>TFS			9.2.1.64	For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
<b>&gt;&gt;Scheduling Information</b>		1			–	
>>>IB_SG_EP	M		9.2.2.21		–	
<b>&gt;&gt;&gt;Segment Information</b>		1.. <maxIBSEG>			–	
>>>>IB_SG_POS	M		9.2.2.20		–	
<b>&gt;DL Code Information</b>		1..<maxnoof DLCodes>			GLOBAL	ignore
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>Transmission Gap Pattern Sequence Information Response	O		<a href="#">9.2.2.47B</a>		–	
>Diversity Indication	M		9.2.2.7		YES	ignore
>CHOICE <i>diversity indication</i>	<u>M</u>					

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
>>Combining					YES	Ignore
>>>RL ID	M		9.2.1.49	Reference RL-Id	–	
>>Non combining					YES	ignore
>>>DCH Information Response		1..<maxnoof DCHs>		Only one DCH per set of co-ordinated DCHs shall be included.	–	
>>>>DCH ID	M		9.2.1.16		–	
>>>>Binding ID	M		9.2.1.3		–	
>>>>Transport Layer Address	M		9.2.1.62		–	
>SSDT Support Indicator	M		9.2.2.43		–	
>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>Closed loop timing adjustment mode	O		9.2.2.3A		–	
>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.2.10		–	
>Minimum DL TX Power	M		DL Power 9.2.2.10		–	
>Neighbouring Cell Information		0..<maxnoof neighbouring RNCs>			EACH	ignore
>>RNC-Id	M		9.2.1.50		–	
>>CN PS Domain Identifier	O		9.2.1.12		–	
>>CN CS Domain Identifier	O		9.2.1.11		–	
>>Per FDD Cell Information		0..<maxnoof FDDneighbours>			–	
>>>C-Id	M		9.2.1.6		–	
>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	–	
>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]	–	
>>>Frame Offset	O		9.2.1.30		–	
>>>Primary Scrambling Code	M		9.2.1.45		–	
>>>Primary CPICH Power	O		9.2.1.44		–	
>>>Cell Individual Offset	O		9.2.1.7		–	
>>>Tx Diversity Indicator	M		9.2.2.50		–	
>>>STTD Support Indicator	O		9.2.2.45		–	
>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2		–	
>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3		–	
>>Per TDD Cell Information		0..<maxnoof TDDneighbours>			–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
		<i>urs&gt;</i>				
>>>C-Id	M		9.2.1.6		–	
>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	–	
>>>Frame Offset	O		9.2.1.30		–	
>>>Cell Parameter ID	M		9.2.1.8		–	
>>>Sync Case	M		9.2.1.54		–	
>>>Time Slot	C-Case1		9.2.1.56		–	
>>>SCH Time Slot	C-Case2		9.2.1.51		–	
>>>Block STTD Indicator	M				–	
>>>Cell Individual Offset	O		9.2.1.7		–	
>>>DPCH Constant Value	O		9.2.1.23		–	
>>>PCCPCH Power	O		9.2.1.43		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

Range bound	Explanation
MaxnoofDCHs	Maximum number of dedicated channels on one RL
MaxnoofRLs	Maximum number of radio links for one UE
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDNeighbours	Maximum number of neighbouring FDD cells for one cell
MaxnoofTDDNeighbours	Maximum number of neighbouring TDD cells for one cell
MaxnoofDLCodes	Maximum number of DL code information
MaxFACHCount	Maximum number of FACH's mapped onto secondary CCPCH's
MaxIBSEG	Maximum number of segments for one Information Block

### 9.1.7.2 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		–	
<b>RL Information Response</b>		1			YES	ignore
>RL ID	M		9.2.1.49		–	
>URA ID	M		9.2.1.70		–	
>SAI	M		9.2.1.52		–	
>Cell GAI	O		9.2.1.5A		–	
>UTRAN Access Point Position	O		9.2.1.70A		–	
<b>&gt;UL Interference per Time Slot</b>		1 .. <maxnoofULts>		Interference Level for each UL time slot within the Radio Link	–	
>>Time Slot	M		9.2.1.56		–	
>>UL Timeslot ISCP	M		9.2.3.13A		–	
>Timing Adjustment Required	M		9.2.3.12A		–	
<b>&gt;UL CCTrCH Information</b>		0..<maxnoofCCTrCHs>		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
<b>&gt;&gt;UL DPCH Information</b>		0..1			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
<b>&gt;&gt;&gt;UL Timeslot Information</b>		1 to <maxnoOfTS>			–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift and Burst Type	M		9.2.3.4		–	
>>>>TFCI Presence	M		9.2.1.55		–	
<b>&gt;&gt;&gt;&gt;UL Code Information</b>		1 to <maxnoOfDPCH>			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code	M		9.2.3.8		–	
<b>&gt;DL CCTrCH Information</b>		0..<maxnoofCCTrCHs>		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
<b>&gt;&gt;DL DPCH Information</b>		0..1			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
<b>&gt;&gt;&gt;DL Timeslot Information</b>		1 to <maxnoOfTS>			–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift and Burst Type	M		9.2.3.4		–	
>>>>TFCI Presence	M		9.2.1.55		–	
<b>&gt;&gt;&gt;&gt;DL Code Information</b>		1 to <maxnoOfDPCH>			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD	M		9.2.3.8		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Channelisation Code						
>Diversity Indication	M		9.2.2.7		YES	ignore
>CHOICE <i>diversity indication</i>	<b>M</b>					
>>Combining					YES	ignore
>>>RL ID	M		9.2.1.49	Reference RL	–	
>>Non combining					YES	ignore
>>>DCH Information Response		1..<maxnoof DCHs>		Only one DCH per set of co-ordinated DCHs shall be included.	–	
>>>>DCH ID	M		9.2.1.16		–	
>>>>Binding ID	M		9.2.1.3		–	
>>>>Transport Layer Address	M		9.2.1.62		–	
>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	M		9.2.1.35		–	
>Maximum DL TX Power	M		DL Power 9.2.2.10		–	
>Minimum DL TX Power	M		DL Power 9.2.2.10		–	
>DSCH Information Response		0 .. <Maxnoof DSCHs>			GLOBAL	ignore
>>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
>>Transport Format Management	M		<a href="#">9.2.3.13</a>		–	
>>Priority Indicator		1..16		Provide Information for each priority class used	–	
>>>Scheduling Priority Indicator	M		<a href="#">9.2.1.51A</a>	DSCH priority indicator	–	
>>>>MAC-c/sh SDU Length		1..<MaxNb MAC-c/shSDULength>			–	
>>>>MAC-c/sh SDU Length	M		<a href="#">9.2.1.34</a>		–	
>>CHOICE <i>Diversity Indication</i>	<b>O</b>				–	
>>>Non combining					–	
>>>>BindingID	M		<a href="#">9.2.1.3</a>		–	
>>>>Transport Layer Address	M		<a href="#">9.2.1.62</a>		–	
>USCH Information Response		0 .. <Maxnoof USCHs>			GLOBAL	ignore
>>USCH ID	M		<a href="#">9.2.3.14</a>		–	
>>Transport Format Management	M		<a href="#">9.2.3.13</a>		–	
>>CHOICE <i>Diversity Indication</i>	<b>O</b>				–	



IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
<i>IndicationCHOICE Diversity Indication</i>						
>>>Non combining					–	
>>>>BindingID	M		9.2.1.3		–	
>>>>Transport Layer Address	M		9.2.1.62		–	
<b>&gt;Neighbouring Cell Information</b>		0..<maxnoofneighbouringRNCs>			EACH	ignore
>>RNC-Id	M		9.2.1.50		–	
>>CN PS Domain Identifier	O		9.2.1.12		–	
>>CN CS Domain Identifier	O		9.2.1.11		–	
<b>&gt;&gt;Per FDD Cell Information</b>		0..<maxnoofFDDneighbours>			–	
>>>C-Id	M		9.2.1.6		–	
>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	–	
>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]	–	
>>>Frame Offset	O		9.2.1.30		–	
>>>Primary Scrambling Code	M		9.2.1.45		–	
>>>Primary CPICH Power	O		9.2.1.44		–	
>>>Cell Individual Offset	O		9.2.1.7		–	
>>>Tx Diversity Indicator	M		9.2.2.50		–	
>>>STTD Support Indicator	O		9.2.2.45		–	
>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2		–	
>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3		–	
<b>&gt;&gt;Per TDD Cell Information</b>		0..<maxnoofTDDneighbours>			–	
>>>C-Id	M		9.2.1.6		–	
>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	–	
>>>Frame Offset	O		9.2.1.30		–	
>>>Cell Parameter ID	M		9.2.1.8		–	
>>>Sync Case	M		9.2.1.54		–	
>>>Time Slot	C-Case1		9.2.1.56		–	
>>>SCH Time Slot	C-Case2		9.2.1.51		–	
>>>Block STTD Indicator	M				–	
>>>Cell Individual Offset	O		9.2.1.7		–	
>>>DPCH Constant Value	O		9.2.1.23		–	
>>>PCCPCH Power	O		9.2.1.43		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1
Case2	This IE is present only if Sync Case = Case2.

Range Bound	Explanation
MaxnoofDCHs	Maximum number of dedicated channels on one RL
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofUSCHs	Maximum number of USCHs for one UE.
MaxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDNeighbours	Maximum number of neighbouring FDD cells for one cell
MaxnoofTDDNeighbours	Maximum number of neighbouring TDD cells for one cell
MaxnoofDLCodes	Maximum number of DL code information
MaxnoOfDPCHs	Maximum number of DPCH in one CCTrCH
MaxnoofCCTrCHs	number of CCTrCH for one UE.
MaxnoofULts	Maximum number of Uplink time slots per Radio Link
MaxnoofTS	Maximum number of Timeslots for a UE

## 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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
CHOICE <i>cause level</i>	<b>M</b>				<b>YES</b>	<b>ignore</b>
>General					Yes	ignore
>>Cause	M		<b>9.2.1.5</b>		–	
>RL specific					Yes	ignore
>>Unsuccessful RL Information Response		1..<maxnoof RLS-1>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
>>>Successful RL Information Response		0..<maxnoof RLS-2>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>RL Set ID	M		9.2.2.35		–	
>>>URA ID	M		9.2.1.70		–	
>>>SAI	M		9.2.1.52		–	
>>>RSSI	M		9.2.2.35A		–	
>>>DL Code Information		1..<maxnoof DL Codes>			GLOBAL	ignore
>>>>DL Scrambling Code	M		9.2.2.8		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>Transmission Gap Pattern Sequence Information Response	O		9.2.2.47B		–	
>>>Diversity Indication	M		9.2.2.7		YES	ignore
>>>CHOICE <i>diversity indication</i>	<b>M</b>					
>>>>Combining					YES	Ignore
>>>>>RL ID	M		9.2.1.49	Reference RL-Id	–	
>>>>>Non combining					YES	Ignore
>>>>>DCH Information Response		1..<maxnoof DCHs>		Only one DCH per set of co-ordinated DCHs shall be included.	–	
>>>>>>DCH ID	M		9.2.1.16		–	
>>>>>>Binding ID	M		9.2.1.3		–	
>>>>>>Transport Layer Address	M		9.2.1.62		–	
>>>SSDT Support Indicator	M		9.2.2.43		–	
>>>Minimum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Maximum Uplink SIR	M		Uplink SIR 9.2.1.69		–	
>>>Closed loop timing adjustment mode	O		<b>9.2.2.3A</b>		<b>⇒</b>	
>>>Maximum Allowed UL Tx Power	M		9.2.1.35		–	
>>>Maximum DL TX Power	M		DL Power 9.2.2.10		–	
>>>Minimum DL TX Power	M		DL Power 9.2.2.10		–	

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
<b>&gt;&gt;&gt;Neighbouring Cell Information</b>		<i>0..&lt;maxnoof neighbouringRNCs&gt;</i>			EACH	Ignore
>>>>RNC-Id	M		9.2.1.50		-	
>>>>CN PS Domain Identifier	O		9.2.1.12		-	
>>>>CN CS Domain Identifier	O		9.2.1.11		-	
<b>&gt;&gt;&gt;&gt;Per FDD Cell Information</b>		<i>0..&lt;maxnoof FDDneighbours&gt;</i>			=	
>>>>>C-Id	M		9.2.1.6		=	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nu in ref. [6]	-	
>>>>>UARFCN	M		9.2.1.66	Corresponds to Nd in ref. [6]	=	
>>>>>Frame Offset	O		9.2.1.30		-	
>>>>>Primary Scrambling Code	M		9.2.1.45		-	
>>>>>Primary CPICH Power	O		9.2.1.44		-	
>>>>>Cell Individual Offset	O		9.2.1.7		=	
>>>>>Tx Diversity Indicator	M		9.2.2.50		=	
>>>>>STTD Support Indicator	O		9.2.2.45		=	
>>>>>Closed Loop Mode1 Support Indicator	O		9.2.2.2		=	
>>>>>Closed Loop Mode2 Support Indicator	O		9.2.2.3		=	
<b>&gt;&gt;&gt;&gt;&gt;Per TDD Cell Information</b>		<i>0..&lt;maxnoof TDDneighbours&gt;</i>			=	
>>>>>>C-Id	M		9.2.1.6		=	
>>>>>>UARFCN	M		9.2.1.66	Corresponds to Nt in ref. [7]	-	
>>>>>>Frame Offset	O		9.2.1.30		-	
>>>>>>Cell Parameter ID	M		9.2.1.8		-	
>>>>>>Sync Case	M		9.2.1.54		-	
>>>>>>Time Slot	C-Case1		9.2.1.56		-	
>>>>>>SCH Time Slot	C-Case2		9.2.1.51		-	
>>>>>>Block STTD Indicator	M				-	
>>>>>>Cell Individual Offset	O		9.2.1.7		-	
>>>>>>DPCH Constant Value	O		9.2.1.23		-	
>>>>>>PCCPCH Power	O		9.2.1.43		-	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
Case1	This IE is present only if Sync Case = Case1.
Case2	This IE is present only if Sync Case = Case2.

Range bound	Explanation
MaxnoofDCHs	Maximum number of dedicated channels on one RL
MaxnoofRLs	Maximum number of radio links for one UE
MaxnoofneighbouringRNCs	Maximum number of neighbouring RNCs
MaxnoofFDDNeighbours	Maximum number of neighbouring FDD cells for one cell
MaxnoofTDDNeighbours	Maximum number of neighbouring TDD cells for one cell
MaxnoofDLCodes	Maximum number of DL code information

### 9.1.8.2 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		–	
CHOICE <i>cause level</i>	M				YES	ignore
>General					Yes	ignore
>>Cause	M		9.2.1.5		–	
>RL specific					Yes	ignore
>>Unsuccessful RL Information Response		1			YES	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
Criticality Diagnostics	O		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>			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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

## 9.1.11 RADIO LINK RECONFIGURATION PREPARE

### 9.1.11.1 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		–	
Allowed Queuing Time	O		9.2.1.2		YES	reject
<b>UL DPCH Information</b>		0..1			YES	reject
>UL Scrambling Code	O		9.2.2.53		–	
>UL SIR Target	O		Uplink SIR 9.2.1.69		–	
>Min UL Channelisation Code Length	O		9.2.2.25		–	
>Max Number of UL DPDCHs	C – CodeLen		9.2.2.24		–	
>Puncture Limit	O		9.2.1.46	For the UL.	–	
>TFCS	O		9.2.1.63	TFCS for the UL.	–	
>UL DPCCH Slot Format	O		9.2.2.52		–	
>Diversity mode	O		9.2.2.8		–	
>SSDT Cell Identity Length	O		9.2.2.41		–	
>S-Field Length	O		9.2.2.36		–	
<b>DL DPCH Information</b>		0..1			YES	reject
>TFCS	O		9.2.1.63	TFCS for the DL.	–	
>DL DPCH Slot Format	O		9.2.2.9		–	
>Number of DL channelisation codes	O		9.2.2.26A		–	
>TFCI Signalling Mode	O		9.2.2.46		–	
>TFCI Presence	C- SlotFormat		9.2.1.55		–	
>MultiplexingPosition	O		9.2.2.26		–	
>Limited Power Increase	O		9.2.1.33		–	
<b>DCHs to Modify</b>		0..<maxnoof DCHs>			GLOBAL	reject
>UL FP Mode	O		9.2.1.67		–	
>ToAWS	O		9.2.1.58		–	
>ToAWE	O		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxnoof DCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>Transport Format Set	O		9.2.1.64	For the UL.	–	
>>Transport Format Set	O		9.2.1.64	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1		–	
>>Frame Handling Priority	O		9.2.1.29		–	
>>DRAC Control	O		9.2.2.13		–	
<b>DCHs to Add</b>		0..<maxnoof DCHs>			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxnoof DCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>TrCh Source Statistics	M		9.2.1.65		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
Descriptor						
>>Transport Format Set	M		9.2.1.64	For the UL.	–	
>>Transport Format Set	M		9.2.1.64	For the DL.	–	
>>BLER	M		<a href="#">9.2.1.39.2.1.4</a>	For the UL.	–	
>>BLER	M		<a href="#">9.2.1.39.2.1.4</a>	For the DL.	–	
>>Allocation/Retention Priority	M		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		–	
<b>DCHs to Delete</b>		0..<maxnoof DCHs>			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	
<b>DSCH to modify</b>		0..1			YES	reject
<b>&gt;DSCH Info</b>		0..<maxnoof DSCHs>			–	
>>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
>>TrCh Source Statistics Descriptor	O		<a href="#">9.2.1.65</a>		=	
>>Transport Format Set	O		<a href="#">9.2.1.64</a>	For DSCH	–	
>>Allocation/Retention Priority	O		<a href="#">9.2.1.1</a>		–	
>>Scheduling Priority Indicator	O		<a href="#">9.2.1.51A</a>		–	
>>BLER	O		<a href="#">9.2.1.4</a>		–	
>PDSCH RL ID	O		RL ID <a href="#">9.2.1.49</a>		–	
>Transport Format Combination Set	O		<a href="#">9.2.1.63</a>	For DSCH	–	
<b>DSCH to add</b>		0..1			YES	reject
<b>&gt;DSCH Info</b>		1..<maxnoof DSCHs>			–	
>>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
>>TrCh Source Statistics Descriptor	M		<a href="#">9.2.1.65</a>		–	
>>Transport Format Set	M		<a href="#">9.2.1.64</a>	For DSCH	–	
>>Allocation/Retention Priority	M		<a href="#">9.2.1.1</a>		–	
>>Scheduling Priority Indicator	M		<a href="#">9.2.1.51A</a>		–	
>>BLER	M		<a href="#">9.2.1.4</a>		–	
>PDSCH RL ID	M		RL ID <a href="#">9.2.1.49</a>		=	
>Transport Format Combination Set	M		<a href="#">9.2.1.63</a>	For DSCH	–	
<b>DSCHs to delete</b>		0..1			YES	reject
<b>&gt;DSCH Info</b>		1..<maxnoof DSCHs>			–	
>>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
<b>RL Information</b>		0..<maxnoof RLs>			EACH	reject
>RL ID	M		9.2.1.49		–	
>SSDT Indication	O		9.2.2.41		–	
>SSDT Cell Identity	C - SSDTIndON		9.2.2.40		–	
>Transmit Diversity Indicator	C - Diversity		9.2.2.50		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
	mode					
Transmission Gap Pattern Sequence Information	O		<a href="#">9.2.2.47A</a>		YES	reject

Condition	Explanation
SSDTIndON	The IE may be present if the SSDT Indication is set to 'SSDT Active in the UE'.
CodeLen	This IE is present only if "Min UL Channelisation Code length" equals to 4.
SlotFormat	This IE is only present if the DL DPCH Slot Format is equal to any of the values 12 to 16.
Diversity mode	This IE is present if <i>Diversity Mode</i> IE is present in <i>UL DPCH Information</i> group, unless it is equal to "none".

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.



### 9.1.11.2 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	O		9.2.1.2		YES	reject
<b>UL CCH to add</b>		0..<maxno of CCHs>		For DCH and USCH	EACH	notify
>CCH 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		–	
<b>UL CCH to modify</b>		0..<maxno of CCHs>			EACH	notify
>CCH ID	M		<a href="#">9.2.3.2</a>		–	
>TFCS	O		<a href="#">9.2.1.63</a>	For the UL.	–	
>TFCI Coding	O		<a href="#">9.2.3.11</a>		–	
>Puncture Limit	O		<a href="#">9.2.1.46</a>		–	
<b>UL CCH to delete</b>		0..<maxno of CCHs>			EACH	notify
>CCH ID	M		<a href="#">9.2.3.2</a>		–	
<b>DL CCH to add</b>		0..<maxno of CCHs>		For DCH and DSCH	EACH	notify
>CCH 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		–	
<b>&gt;TPC CCH List</b>		1 to <maxno CCH>		List of uplink CCH which provide TPC	–	
>>TPC CCH ID	M		CCH ID 9.2.3.2		–	
<b>DL CCH to modify</b>		0..<maxno of CCHs>			EACH	notify
>CCH ID	M		<a href="#">9.2.3.2</a>		–	
>TFCS	O		<a href="#">9.2.1.63</a>	For the DL.	–	
>TFCI Coding	O		<a href="#">9.2.3.11</a>		–	
>Puncture Limit	O		<a href="#">9.2.1.46</a>		–	
<b>&gt;TPC CCH List</b>		0 to <maxno CCH>		List of uplink CCH which provide TPC	–	
>>TPC CCH ID	M		CCH ID 9.2.3.3		–	
<b>DL CCH to delete</b>		0..<maxno of CCHs>			EACH	notify
>CCH ID	M		<a href="#">9.2.3.2</a>		–	
<b>DCHs to Modify</b>		0..<maxno of DCHs>			GLOBAL	reject
>UL FP Mode	O		9.2.1.67		–	
>ToAWS	O		9.2.1.58		–	
>ToAWE	O		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxno of DCHs>			–	
>>DCH ID	M		9.2.1.16		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>CCTrCH ID	O		9.2.3.2	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	O		9.2.3.2	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	O		9.2.1.64	For the UL.	–	
>>Transport Format Set	O		9.2.1.64	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1		–	
>>Frame Handling Priority	O		9.2.1.29		–	
<b>DCHs to Add</b>		<i>0..&lt;maxno ofDCHs&gt;</i>			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		<i>1..&lt;maxno ofDCHs&gt;</i>			–	
>>DCH ID	M		9.2.1.16		–	
>>CCTrCH ID	M		9.2.3.2	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	M		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		<a href="#">9.2.1.39.2.1.4</a>	For the UL.	–	
>>BLER	M		<a href="#">9.2.1.39.2.1.4</a>	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		–	
<b>DCHs to Delete</b>		<i>0..&lt;maxno ofDCHs&gt;</i>			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	
<b>DSCHs to Modify</b>		<i>0..&lt;maxno ofDSCHs&gt;</i>			GLOBAL	reject
>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
>CCTrCH Id	O		<a href="#">9.2.3.2</a>	DL CCTrCH in which the DSCH is mapped.	–	
>TrCh Source Statistics Descriptor	O		<a href="#">9.2.1.65</a>		–	
>Transport Format Set	O		<a href="#">9.2.1.64</a>		–	
>Allocation/Retention Priority	O		<a href="#">9.2.1.1</a>		–	
>Scheduling Priority Indicator	O		<a href="#">9.2.1.51A</a>		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>BLER	O		<a href="#">9.2.1.4</a>		–	
<b>DSCHs to Add</b>		<i>0..&lt;maxno ofDSCHs&gt;</i>			GLOBAL	reject
>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
>CCTrCH Id	M		<a href="#">9.2.3.2</a>	DL CCTrCH in which the DSCH is mapped.	–	
>TrCh Source Statistics Descriptor	M		<a href="#">9.2.1.65</a>		=	
>Transport Format Set	M		<a href="#">9.2.1.64</a>		=	
>Allocation/Retention Priority	M		<a href="#">9.2.1.1</a>		=	
>Scheduling Priority Indicator	M		<a href="#">9.2.1.51A</a>		=	
>BLER	M		<a href="#">9.2.1.4</a>		–	
<b>DSCHs to Delete</b>		<i>0..&lt;maxno ofDSCHs&gt;</i>			GLOBAL	reject
>DSCH ID	M		<a href="#">9.2.1.26a</a>		–	
<b>USCHs to Modify</b>		<i>0..&lt;maxno ofUSCHs&gt;</i>			GLOBAL	reject
>USCH ID	M		<a href="#">9.2.3.14</a>		–	
>CCTrCH Id	O		<a href="#">9.2.3.2</a>	UL CCTrCH in which the USCH is mapped.	–	
>TrCh Source Statistics Descriptor	O		<a href="#">9.2.1.65</a>		–	
>Transport Format Set	O		<a href="#">9.2.1.64</a>		–	
>Allocation/Retention Priority	O		<a href="#">9.2.1.1</a>		–	
>Scheduling Priority Indicator	O		<a href="#">9.2.1.51A</a>		–	
>BLER	O		<a href="#">9.2.1.4</a>		–	
<b>&gt;RB Info</b>		1 to <maxno of RB>		All Radio Bearers using this USCH	–	
>>RB Identity	M		<a href="#">9.2.3.5B</a>		–	
<b>USCHs to Add</b>		<i>0..&lt;maxno ofUSCHs&gt;</i>			GLOBAL	reject
>USCH ID	M		<a href="#">9.2.3.14</a>		–	
>CCTrCH Id	M		<a href="#">9.2.3.2</a>	UL CCTrCH in which the USCH is mapped.	–	
>TrCh Source Statistics Descriptor	M		<a href="#">9.2.1.65</a>		–	
>Transport Format Set	M		<a href="#">9.2.1.64</a>		–	
>Allocation/Retention Priority	M		<a href="#">9.2.1.1</a>		–	
>Scheduling Priority Indicator	M		<a href="#">9.2.1.51A</a>		–	
>BLER	M		<a href="#">9.2.1.4</a>		–	
<b>&gt;RB Info</b>		1 to <maxno of RB>		All Radio Bearers using this USCH	–	
>>RB Identity	M		<a href="#">9.2.3.5B</a>		–	
<b>USCHs to Delete</b>		<i>0..&lt;maxno ofUSCHs&gt;</i>			GLOBAL	reject
>USCH ID	M		<a href="#">9.2.3.14</a>		–	

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

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofUSCHs	Maximum number of USCHs for one UE.
MaxnoofRBs	Maximum number of Radio Bearers for one UE.

## 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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
<b>RL Information Response</b>		0..<maxno ofRLs>			EACH	ignore
>RL ID	M		9.2.1.49		–	
>Maximum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Maximum DL TX Power	O		DL Power 9.2.2.10		–	
>Minimum DL TX Power	O		DL Power 9.2.2.10		–	
<b>&gt;Secondary CCPCH Info</b>		0..1			–	
>>FDD S-CCPCH Offset	M		9.2.2.15	Corresponds to: $\tau_{S-CCPCH,k}$ , see ref. [8]	–	
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>TFCS	M		9.2.1.63	For the DL.	–	
>>Secondary CCPCH Slot Format	M		9.2.2.38		–	
>>TFCI Presence	C - SlotFormat		9.2.1.55		–	
>>Multiplexing Position	M		9.2.2.26		–	
>>STTD Indicator	M		9.2.2.44		–	
<b>&gt;&gt;FACH/PCH Information</b>		1 .. <maxFACHcount+1>			–	
>>>TFS			9.2.1.64	For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
<b>&gt;&gt;Scheduling Information</b>		1			–	
>>>IB_SG_REP	M		9.2.2.21		–	
<b>&gt;&gt;&gt;Segment Information</b>		1.. <maxIBSEG>			–	
>>>>IB_SG_POS	M		9.2.2.20		–	
<b>&gt;Downlink Code Information</b>		0..<maxno ofDLCode s>			GLOBAL	ignore
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>Transmission Gap Pattern Sequence Information Response	O		<a href="#">9.2.2.47B</a>		–	
<b>&gt;DCH Information</b>		0..<maxno		Only one	GLOBAL	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
<b>Response</b>		<i>ofDCHs</i> >		DCH per set of co-ordinated DCHs shall be included.  The IE group shall be included only once per DCH per set of combined RLs.		
>>DCH ID	M		9.2.1.16		–	
>>Binding ID	M		9.2.1.3		–	
>>Transport Layer Address	M		9.2.1.62		–	
<b>&gt;DSCH to be Added or Modified</b>		0..1			YES	ignore
<b>&gt;&gt;DSCH Information</b>		1 .. <Maxnoof DSCHs>			–	
>>>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
<b>&gt;&gt;&gt;Priority Indicator</b>		1..16		Provide Information for each priority class used	–	
>>>>Scheduling Priority Indicator	M		<a href="#">9.2.1.51A</a>	DSCH priority indicator	–	
<b>&gt;&gt;&gt;&gt;MAC-c/sh SDU Length</b>		1..<MaxNb MAC-c/shSDUL ength>			–	
>>>>>MAC-c/sh SDU Length	M		<a href="#">9.2.1.34</a>		–	
>>>>Binding ID	M		<a href="#">9.2.1.3</a>		–	
>>>>Transport Layer Address	M		<a href="#">9.2.1.62</a>		–	
>>PDSCH code mapping	M		<a href="#">9.2.2.27A</a>	PDSCH code mapping to be used	–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs.
MaxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxnoofDLCodes	Maximum number of Downlink Channelisation Codes.
MaxFACHCount	Maximum number of FACH's mapped onto secondary CCPCH's
MaxIBSEG	Maximum number of segments for one Information Block

### 9.1.12.2 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		–	
<b>RL Information Response</b>		0..1			YES	ignore
>RL ID	M		9.2.1.49		–	
>Maximum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Maximum DL TX Power	O		DL Power 9.2.2.10		–	
>Minimum DL TX Power	O		DL Power 9.2.2.10		–	
<b>&gt;UL CCTrCH Information</b>		0..<maxnoof CCTrCHs>		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
<b>&gt;&gt;UL DPCH to be added</b>		0..1			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
<b>&gt;&gt;&gt;UL Timeslot Information</b>		1 to <maxnoOfT S			–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift and Burst Type	M		9.2.3.4		–	
>>>>TFCI Presence	M		9.2.1.55		–	
<b>&gt;&gt;&gt;&gt;UL Code Information</b>		1 to <maxnoOfD PCH>			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code	M		9.2.3.8		–	
<b>&gt;&gt;UL DPCH to be modified</b>		0..1			YES	ignore
>>>Repetition Period	O		9.2.3.7		–	
>>>Repetition Length	O		9.2.3.6		–	
>>>TDD DPCH Offset	O		9.2.3.8A		–	
<b>&gt;&gt;&gt;UL Timeslot Information</b>		0 to <maxnoOfT S			–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift and Burst Type	O		9.2.3.4		–	
>>>>TFCI Presence	O		9.2.1.55		–	
<b>&gt;&gt;&gt;&gt;UL Code Information</b>		0 to <maxnoOfD PCH>			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code	M		9.2.3.8		–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
<b>&gt;&gt;UL DPCH to be deleted</b>		<i>0..&lt;maxnoof DPCHs&gt;</i>			GLOBAL	ignore
>>>DPCH ID	M		<a href="#">9.2.3.3</a>		–	
<b>&gt;DL CCTrCH Information</b>		<i>0..&lt;maxnoof CCTrCHs&gt;</i>		For DCH	GLOBAL	ignore
>>CCTrCH ID	M		9.2.3.2		–	
<b>&gt;&gt;DL DPCH to be added</b>		<i>0..1</i>			YES	ignore
>>>Repetition Period	M		9.2.3.7		–	
>>>Repetition Length	M		9.2.3.6		–	
>>>TDD DPCH Offset	M		9.2.3.8A		–	
<b>&gt;&gt;&gt;DL Timeslot Information</b>		<i>0 to &lt;maxnoOfT S&gt;</i>			–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift and Burst Type	M		9.2.3.4		–	
>>>>TFCI Presence	M		9.2.1.55		–	
<b>&gt;&gt;&gt;&gt;DL Code Information</b>		<i>0 to &lt;maxnoOfD PCH&gt;</i>			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code	M		9.2.3.8		–	
<b>&gt;&gt;DL DPCH to be modified</b>		<i>0..1</i>			YES	ignore
>>>Repetition Period	O		9.2.3.7		–	
>>>Repetition Length	O		9.2.3.6		–	
>>>TDD DPCH Offset	O		9.2.3.8A		–	
<b>&gt;&gt;&gt;DL Timeslot Information</b>		<i>0 to &lt;maxnoOfT S&gt;</i>			–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift and Burst Type	O		9.2.3.4		–	
>>>>TFCI Presence	O		9.2.1.55		–	
<b>&gt;&gt;&gt;&gt;DL Code Information</b>		<i>0 to &lt;maxnoOfD PCH&gt;</i>			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code	M		9.2.3.8		–	
<b>&gt;&gt;DL DPCH to be deleted</b>		<i>0..&lt;maxnoof DPCHs&gt;</i>			GLOBAL	ignore
>>>DPCH ID	M		<a href="#">9.2.3.3</a>		–	
<b>&gt;DCH Information Response</b>		<i>0..&lt;maxnoof DCHs&gt;</i>		Only one DCH per set of co-ordinated DCHs shall be included.  The IE group shall be included only once per DCH per set of combined RLS.	GLOBAL	ignore
>>DCH ID	M		9.2.1.16		–	
>>Binding ID	M		9.2.1.3		–	



IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>Transport Layer Address	M		9.2.1.62		–	
>DSCH to be Added or Modified		0 .. <Maxnoof DSCHs>			GLOBAL	ignore
>>DSCH ID	M		<a href="#">9.2.1.26A</a>		–	
>>Transport Format Management	M		<a href="#">9.2.3.13</a>		–	
>>>Priority Indicator		1..16		Provide Information for each priority class used	–	
>>>>Scheduling Priority Indicator	M		<a href="#">9.2.1.51A</a>	DSCH priority indicator	–	
>>>>MAC-c/sh SDU Length		1..<MaxNbMAC-c/shSDULength>			–	
>>>>MAC-c/sh SDU Length	M		<a href="#">9.2.1.34</a>		–	
>>Binding ID	M		<a href="#">9.2.1.3</a>		–	
>>Transport Layer Address	M		<a href="#">9.2.1.62</a>		–	
>USCH to be Added or Modified		0 .. <Maxnoof USCHs>			GLOBAL	ignore
>>USCH ID	M		<a href="#">9.2.3.14</a>		–	
>>Transport Format Management	M		<a href="#">9.2.3.13</a>		–	
>>Binding ID	M		<a href="#">9.2.1.3</a>		–	
>>Transport Layer Address	M		<a href="#">9.2.1.62</a>		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE.
MaxnoofUSCHs	Maximum number of USCHs for one UE.
MaxNbMAC-c/shSDULength	Maximum number of different MAC-c/sh SDU lengths
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
Maxnoof DPCHs	Maximum number of DPCHs in one CCTrCH.
MaxnoofTS	Maximum number of Timeslots for a UE

### 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	O		<a href="#">9.2.2.A</a>		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		–	
CHOICE <i>cause level</i>	<b>M</b>				<b>YES</b>	<b>Ignore</b>
> <i>General</i>					YES	Ignore
>>Cause	M		9.2.1.5		YES	Ignore
> <i>RL specific</i>					YES	Ignore
<b>&gt;&gt;RLs Causing Reconfiguration Failure</b>		<i>0..&lt;maxnoof RLs&gt;</i>			EACH	Ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
Criticality Diagnostics	O		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	M		9.2.1.40		YES	reject
Transaction ID	M		9.2.1.59		–	
Allowed Queuing Time	O		9.2.1.2		YES	reject
<b>UL DPCH Information</b>		0..1			YES	reject
>TFCS	O		9.2.1.63	TFCS for the UL.	–	
<b>DL DPCH Information</b>		0..1			YES	reject
>TFCS	O		9.2.1.63	TFCS for the DL.	–	
>TFCI Signalling Mode	O		9.2.2.46		–	
>Limited Power Increase	O		9.2.1.33		–	
<b>DCHs to Modify</b>		0..<maxno ofDCHs>			GLOBAL	reject
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxno ofDCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>Transport Format Set	O		9.2.1.64	For the UL.	–	
>>Transport Format Set	O		9.2.1.64	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1		–	
>>Frame Handling Priority	O		9.2.1.29		–	
>>DRAC Control	O		9.2.2.13		–	
<b>DCHs to add</b>		0..<maxno ofDCHs>			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxno ofDCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>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		<a href="#">9.2.1.39.2.1.4</a>	For the UL.	–	
>>BLER	M		<a href="#">9.2.1.39.2.1.4</a>	For the DL.	–	
>>Allocation/Retention Priority	M		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		–	
<b>DCHs to Delete</b>		0..<maxno ofDCHs>			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	
Transmission Gap Pattern Sequence Information	O		<a href="#">9.2.2.47A</a>		YES	reject

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<b>Range Bound</b>	<b>Explanation</b>
MaxnoofDCHs	Maximum number of DCHs for a UE.

### 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	O		9.2.1.2		YES	reject
<b>UL CCTrCH Information to modify</b>		0..<maxnoof CCTrCHs>			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
>TFCS	M		9.2.1.63		–	
<b>UL CCTrCH Information to delete</b>		0..<maxnoof CCTrCHs>			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
<b>DL CCTrCH Information to modify</b>		0..<maxnoof CCTrCHs>			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
>TFCS	M		9.2.1.63		–	
<b>DL CCTrCH Information to delete</b>		0..<maxnoof CCTrCHs>			EACH	notify
>CCTrCH ID	M		9.2.3.2		–	
<b>DCHs to Modify</b>		0..<maxnoof DCHs>			GLOBAL	reject
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxnoof DCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>CCTrCH ID	O		9.2.3.2	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	O		9.2.3.2	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	O		9.2.1.64	For the UL.	–	
>>Transport Format Set	O		9.2.1.64	For the DL.	–	
>>Allocation/Retention Priority	O		9.2.1.1		–	
>>Frame Handling Priority	O		9.2.1.29		–	
<b>DCHs to Add</b>		0..<maxnoof DCHs>			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.42		–	
>UL FP Mode	M		9.2.1.67		–	
>ToAWS	M		9.2.1.58		–	
>ToAWE	M		9.2.1.57		–	
<b>&gt;DCH Specific Info</b>		1..<maxnoof DCHs>			–	
>>DCH ID	M		9.2.1.16		–	
>>TrCh Source Statistics Descriptor	M		9.2.1.65		–	
>>CCTrCH ID	M		9.2.3.2	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	M		9.2.1.64	For the UL.	–	

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>Transport Format Set	M		9.2.1.64	For the DL.	–	
>>BLER	M		9.2.1.39.2.1.4	For the UL.	–	
>>BLER	M		9.2.1.39.2.1.4	For the DL.	–	
>>Allocation/Retention Priority	M		9.2.1.1		–	
>>Frame Handling Priority	M		9.2.1.29		–	
>>QE-Selector	C-CoordDCH		9.2.1.46A		–	
<b>DCHs to Delete</b>		0..<maxnoof DCHs>			GLOBAL	reject
>DCH ID	M		9.2.1.16		–	

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

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

## 9.1.17 RADIO LINK RECONFIGURATION 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	M		9.2.1.59		–	
<b>RL Information Response</b>		0..<maxno ofRLs>			EACH	ignore
>RL ID	M		9.2.1.49		–	
>Maximum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Minimum Uplink SIR	O		Uplink SIR 9.2.1.69		–	
>Maximum DL TX Power	O		DL Power 9.2.2.10		–	
>Minimum DL TX Power	O		DL Power 9.2.2.10		–	
<b>&gt;Secondary CCPCH Info</b>		0..1			–	
>>FDD S-CCPCH Offset	M		9.2.2.15	Corresponds to: $\tau_{S-CCPCH,k}$ , see ref. [8]	–	
>>DL Scrambling Code	M		9.2.2.8		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>TFCS	M		9.2.1.63	For the DL.	–	
>>Secondary CCPCH Slot Format	M		9.2.2.38		–	
>>TFCI Presence	C - SlotFormat		9.2.1.55		–	
>>Multiplexing Position	M		9.2.2.26		–	
>>STTD Indicator	M		9.2.2.44		–	
<b>&gt;&gt;FACH/PCH Information</b>		1 .. <maxFACHcount+1>			–	
>>>TFS			9.2.1.64	For each FACH, and the PCH when multiplexed on the same Secondary CCPCH	–	
<b>&gt;&gt;Scheduling Information</b>		1			–	
>>>IB_SG_REP	M		9.2.2.21		–	
<b>&gt;&gt;&gt;Segment Information</b>		1.. <maxIBSEG>			–	
>>>>IB_SG_POS	M		9.2.2.20		–	
<b>&gt;DCH Information Response</b>		0..<maxno ofDCHs>		Only one DCH per set of co-ordinated DCHs shall be included.  The IE group shall be included only once per DCH per set of combined RLs.	GLOBAL	ignore

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description	Criticality	Assigned Criticality
>>DCH ID	M		9.2.1.16		–	
>>Binding ID	M		9.2.1.3		–	
>>Transport Layer Address	M		9.2.1.62		–	
<b>&gt;DL Code Information</b>		0.. <maxnoof DLCodes			GLOBAL	ignore
>>DL Scrambling Code	M		<a href="#">9.2.2.11</a>		–	
>>FDD DL Channelisation Code Number	M		<a href="#">9.2.2.14</a>		–	
>>Transmission Gap Pattern Sequence Information Response	M		<a href="#">9.2.2.47A</a>		–	
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Condition	Explanation
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17

Range Bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxnoofDLCodes	Maximum number of Downlink Channelisation Codes.
MaxSysinfoFACHCount	Maximum number of references to system information blocks on the FACH
MaxIBSEG	Maximum number of segments for one Information Block

## 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 <i>Reporting Object</i>	M			Object for which the Failure shall be reported.	YES	ignore
<b>&gt;RL"RL"</b>					YES	ignore
<b>&gt;&gt;RL Information</b>	M	1.. <MaxnoofRL s>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>Cause	M		9.2.1.5		–	
<b>&gt;RLS"RL Set"</b>					YES	ignore
<b>&gt;&gt;RL Set Information</b>		1.. <MaxnoofRL Sets>			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>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.



### 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 Information					YES	ignore
>>RL Information		1 .. <Maxno ofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>RL Set Information					YES	ignore
>>RL Set Information		1 .. <Maxno ofRLSet s>			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	

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

### 9.1.20 DL POWER CONTROL REQUEST [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		–	
Power Adjustment Type	M		9.2.2.28		YES	ignore
DL Reference Power	C-Common		DL Power 9.2.2.10		YES	ignore
DL Reference Power Information	C-Individual	1..<maxno ofRLs>			GLOBAL	ignore
>RL ID	M		9.2.1.49		–	
>DL Reference Power	M		DL Power 9.2.2.10		–	
Max Adjustment Step	C-CommonOrIndividual		9.2.2.23		YES	ignore
Adjustment Period	C-CommonOrIndividual		9.2.2.22		YES	ignore
Adjustment Ratio	C-CommonOrIndividual		9.2.2.C		YES	ignore

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

Range Bound	Explanation
MaxnoofRLs	Maximum number of 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		–	
<b>RL Information</b>		1			YES	reject
>RL ID	M		9.2.1.49		–	
<b>&gt;DL Code Information</b>		1 .. <maxnoof DLCodes>			GLOBAL	notify
>>DL Scrambling Code	M		9.2.2.11		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	

Range bound	Explanation
MaxnoofDLcodes	Maximum number of DL codes for one UE

### 9.1.21.2 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		–	
<b>RL Information</b>		1			YES	reject
>RL ID	M		9.2.1.49		–	
<b>&gt;UL CCTrCH Information</b>		1.. <maxnoof CCTrCHs>			GLOBAL	reject
>>CCTrCH ID	M		9.2.3.2		–	
<b>&gt;&gt;UL DPCH Information</b>		1			YES	notify
>>>Repetition Period	O		9.2.3.7		–	
>>>Repetition Length	O		9.2.3.6		–	
>>>TDD DPCH Offset	O		9.2.3.8A		–	
<b>&gt;&gt;&gt;UL Timeslot Information</b>		0 to <maxnoOf TS			–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift and Burst Type	O		9.2.3.4		–	
>>>>TFCI Presence	O		9.2.1.55		–	
<b>&gt;&gt;&gt;&gt;UL Code Information</b>		0 to <maxnoOf DPCH>			–	
>>>>>DPCH ID	M		9.2.3.3		–	
>>>>>TDD Channelisation Code	M		9.2.3.8		–	
<b>&gt;DL CCTrCH Information</b>		1..<maxno of CCTrCH s>			GLOBAL	reject
>>CCTrCH ID	M		9.2.3.2		–	
<b>&gt;&gt;DL DPCH Information</b>		1			YES	notify
>>>Repetition Period	O		9.2.3.7		–	
>>>Repetition Length	O		9.2.3.6		–	
>>>TDD DPCH Offset	O		9.2.3.8A		–	
<b>&gt;&gt;&gt;DL Timeslot Information</b>		0 to <maxnoOf TS			–	
>>>>Time Slot	M		9.2.1.56		–	
>>>>Midamble Shift and Burst Type	O		9.2.3.4		–	
>>>>TFCI Presence	O		9.2.1.55		–	
<b>&gt;&gt;&gt;&gt;DL Code Information</b>		0 to <maxnoOf DPCH>			–	
>>>>>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.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
MaxnoofTS	Maximum number of Timeslots for a UE

## 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	O		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	M		9.2.1.5		YES	ignore
Criticality Diagnostics	O		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	O		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	O		9.2.1.24		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	M		9.2.2.3		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
URA ID	M		9.2.1.70		YES	ignore
Multiple URAs Indicator	M		9.2.1.41		YES	ignore
<b>RNCs with Cells in the Accessed URA</b>		0 .. <MaxRNCinURA-1>			GLOBAL	ignore
>RNC-Id	M		9.2.1.50		–	

Range bound	Explanation
MaxRNCinURA	Maximum number of RNC in one URA

### 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	O		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	O		9.2.1.24		YES	ignore
L3 Information	M		9.2.1.32		YES	ignore
CN PS Domain Identifier	O		9.2.1.12		YES	ignore
CN CS Domain Identifier	O		9.2.1.11		YES	ignore
URA ID	M		9.2.1.70		YES	ignore
Multiple URAs Indicator	M		9.2.1.41		YES	ignore
<b>RNCs with Cells in the Accessed URA</b>		0 .. <MaxRNCinURA-1>			GLOBAL	ignore
>RNC-Id	M		9.2.1.50		–	

Range bound	Explanation
MaxRNCinURA	Maximum number of RNC in one URA

### 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-Id	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	O		9.2.1.24		YES	ignore
RANAP Relocation Information	O		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	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		–	
CHOICE <i>paging area</i>	<b>M</b>				YES	ignore
> <b>URA</b>					YES	ignore
>>URA-ID	M		9.2.1.70		–	
> <b>Cell</b>					YES	ignore
>>C-Id	M		9.2.1.6		–	
SRNC-Id	M		RNC-Id 9.2.1.50		YES	ignore
S-RNTI	M		9.2.1.53		YES	ignore
IMSI	M		9.2.1.31		–	
DRX Cycle Length Coefficient	M		9.2.1.26		YES	ignore

### 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		–	
Measurement Id	M		9.2.1.37		YES	reject
Dedicated Measurement Object Type	M		9.2.1.17		YES	reject
CHOICE <i>Dedicated Measurement Object Type</i>	<b>M</b>				YES	ignore
> <b>RL-RL</b>					YES	reject
>> <b>RL Information</b>		1..<maxn oofRLs>			EACH	reject
>>>RL-ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
> <b>RLS-RLS</b>				FDD only	YES	reject
>> <b>RL Set Information</b>		1..<maxn oofRLSets>			EACH	reject
>>>RL-Set-ID	M		9.2.2.35		–	
Dedicated Measurement Type	M		9.2.1.18		YES	reject
Measurement Filter Coefficient	O		9.2.1.36		YES	reject
Report Characteristics	M		9.2.1.48		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	M		9.2.1.59	Are both transaction id and Measurement id needed ?	–	
Measurement Id	M		9.2.1.37		YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>	O			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
> <i>RL or ALL RL</i> "RL" or "ALL RL"					YES	ignore
>>RL Information		1..<maxno ofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.49		–	
>>>DPCH ID	O		9.2.3.3	TDD only	–	
>>>Dedicated Measurement Value	M		9.2.1.19		–	
> <i>RLS or ALL RLS</i> "RLS" or "ALL RLS"				FDD only	YES	ignore
>>RL Set Information		1..<maxno ofRLSets>			EACH	ignore
>>>RL Set ID	M		9.2.2.35		–	
>>>Dedicated Measurement Value	M		9.2.1.19		–	
CFN	O		9.2.1.9	Dedicated Measurement Time Reference	YES	ignore
Criticality Diagnostics	O		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	O		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	M		9.2.1.40		YES	ignore
Transaction ID	M		9.2.1.59		-	
Measurement Id	M		9.2.1.37		YES	ignore
CHOICE <i>Dedicated Measurement Object Type</i>	<u>M</u>			Dedicated Measurement Object Type the measurement was initiated with	YES	ignore
> <u>RL or ALL RL</u> "RL" or "ALL RL"					YES	ignore
>>RL Information		1..<maxnoofRLs>			EACH	ignore
>>>RL-ID	M		9.2.1.49		-	
>>>DPCH ID	O		9.2.3.3	TDD only	-	
>>>CHOICE <i>Measurement Availability Indicator</i>	<u>M</u>				=	
>>>>Measurement Available					YES	ignore
>>>>Dedicated Measurement Value	M		9.2.1.19		-	
>>>>Measurement not Available		NULL	NULL		YES	ignore
> <u>RLS or ALL RLS</u> "RLS" or "ALL RLS"				FDD only	YES	ignore
>>RL Set Information		1..<maxnoofRLSets>			EACH	ignore
>>>RL Set ID	M		9.2.2.35		-	
>>>CHOICE <i>Measurement Availability Indicator</i>	<u>M</u>				=	
>>>>Measurement Available					YES	ignore
>>>>Dedicated Measurement Value	M		9.2.1.19		-	
>>>>Measurement not Available		NULL	NULL			
CFN	O		9.2.1.9	Dedicated Measurement Time Reference	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.

### 9.1.32 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	M		9.2.1.24		YES	ignore
C-RNTI	O		9.2.1.14	Release of an individual C-RNTI.	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	M		9.2.1.25		YES	Reject
C-ID	O		9.2.1.6		YES	Reject
Transport Bearer Request Indicator	M		9.2.1.61	Request a new transport bearer or to use an existing bearer for the user plane.	YES	Reject
Transport Bearer ID	M		9.2.1.60	Indicates the lur transport bearer to be used for the user plane.	YES	Reject

## 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	O		9.2.1.14		YES	ignore
<b>FACH Info for UE Selected S-CCPCH</b>		0..1			YES	ignore
<b>&gt;Priority Indicator &amp; Initial Window Size</b>		1..16		Provide Information for each priority class used	GLOBAL	ignore
>>FACH Priority Indicator	M		Scheduling Priority Indicator 9.2.1.28		–	
<b>&gt;&gt;MAC-c/sh SDU Length</b>		1..<MaxnofMACcshSDUlengthsp erPriority>			GLOBAL	ignore
>>>MAC-c/sh SDU Length	M		9.2.1.34		–	
>>FACH Initial Window Size	M		9.2.1.27		–	
<b>FACH Info for DRNC Selected S-CCPCH</b>		0..1			YES	ignore
>FDD S-CCPCH Offset	M		9.2.2.15	Corresponds to: $\tau_{S-CCPCH,k}$ , see ref. [7]	–	
>DL Scrambling Code	M		9.2.2.8		–	
>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>TFCS	M		9.2.1.63	For the DL.	–	
>Secondary CCPCH Slot Format	M		9.2.2.38		–	
>Multiplexing Position	M		9.2.2.26		–	
>STTD Indicator	M		9.2.2.44		–	
<b>&gt;Priority Indicator &amp; Initial Window Size</b>		1..16		Provide Information for each priority class used	GLOBAL	ignore
>>FACH Priority Indicator	M		Scheduling Priority Indicator 9.2.1.28		–	
<b>&gt;&gt;MAC-c/sh SDU Length</b>		1..<MaxnofMACcshSDUlengthsp erPriority>			GLOBAL	ignore
>>>MAC-c/sh SDU Length	M		9.2.1.34		–	
>>FACH Initial Window Size	M		9.2.1.27		–	
<b>RACH Info for DRNC Selected PRACH</b>		0..1			YES	ignore
>Preamble Signatures	M		9.2.2.31A		–	
>RACH Minimum Spreading Factor	M		9.2.2.33A		–	
>Scrambling Code	M		9.2.2.37A		–	

Number						
>Puncture Limit	M		<a href="#">9.2.1.46</a>		-	
>RACH Sub channel Numbers	M		<a href="#">9.2.2.34A</a>		-	
URA ID	O		<a href="#">9.2.1.70</a>		YES	ignore
Multiple URAs Indicator	O		<a href="#">9.2.1.41</a>		YES	ignore
<b>RNCs with Cells in the Accessed URA</b>		<i>0.. &lt;MaxRNCi nURA-1&gt;</i>			GLOBAL	ignore
>RNC-Id	M		<a href="#">9.2.1.50</a>		-	
Transport Layer Address	O		<a href="#">9.2.1.62</a>		YES	ignore
Binding Identity	O		<a href="#">9.2.1.3</a>		YES	ignore
Criticality Diagnostics	O		<a href="#">9.2.1.13</a>		YES	ignore

Range Bound	Explanation
MaxnoofMACcshSDUlengthsperPriority	Maximum number of different MAC-c/sh SDU Lengths.
MaxRNCinURA	Maximum number of RNC in one URA.

### 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	O		9.2.1.14		YES	ignore
<b>FACH Info for UE Selected S-CCPCHs</b>		<b>1</b>			YES	ignore
<b>&gt;Priority Indicator &amp; Initial Window Size</b>		<i>1 .. 16</i>		Provide Information for each priority class used	GLOBAL	ignore
>>FACH Priority Indicator	M		Scheduling Priority Indicator 9.2.1.28		–	
>>>MAC-c/sh SDU Length		<i>1..&lt; MaxnoofM ACcshSDU lengthsper Priority&gt;</i>			GLOBAL	ignore
>>>>MAC-c/sh SDU Length	M		9.2.1.34		–	
>>FACH Initial Window Size	M		9.2.1.27		–	
<b>FACH Info for DRNC Selected group of S-CCPCHs</b>		<i>0 .. 1</i>			YES	ignore
>TFCS	M		9.2.1.63	For DL CCTrCH supporting several Secondary CCPCHs	–	
<b>&gt;Secondary CCPCH</b>	M	<i>1.. &lt;MaxnoofS CCPCHs&gt;</i>			GLOBAL	ignore
>>TDD Channelisation Code	M		9.2.2.8		–	
>>Time Slot	M		9.2.1.56		–	
>>Midamble shift and Burst Type	M		9.2.3.4		–	
>>TDD Physical Channel Offset	M		9.2.3.9		–	
>>Repetition Period	M		9.2.3.7		–	
>>Repetition Length	M		9.2.3.6		–	
<b>&gt;&gt;Priority Indicator &amp; Initial Window Size</b>		<i>1..16</i>		Provide Information for each priority class used	GLOBAL	ignore
>>>FACH Priority Indicator	M		Scheduling Priority Indicator 9.2.1.28		–	
>>>>MAC-c/sh SDU Length		<i>1..&lt; MaxnoofM ACcshSDU lengthsper Priority&gt;</i>			GLOBAL	ignore
>>>>>MAC-c/sh SDU Length	M		9.2.1.34		–	
>>>FACH Initial	M		9.2.1.27		–	

Window Size						
<b>RACH Info for DRNC Selected PRACH</b>		0..1			YES	ignore
>TDD Channelisation Code	M		<a href="#">9.2.3.8</a>		–	
>Time Slot	M		<a href="#">9.2.1.56</a>		–	
>PRACH Midamble	O		<a href="#">9.2.3.5A</a>		–	
URA ID	O		<a href="#">9.2.1.70</a>		YES	ignore
Multiple URAs Indicator	O		<a href="#">9.2.1.41</a>		YES	ignore
<b>RNCs with Cells in the Accessed URA</b>		0 .. <MaxRNCi nURA-1>			GLOBAL	ignore
>RNC-Id	M		<a href="#">9.2.1.50</a>		–	
Transport Layer Address	O		9.2.1.62		YES	ignore
Binding Identity	O		9.2.1.3		YES	ignore
Criticality Diagnostics	O		9.2.1.13		YES	ignore

Range Bound	Explanation
MaxnoofMSCcshSDUlengthsperPriority	Maximum number of different MAC-c/sh SDU Lengths.
MaxnoofSCCPCHs	TBD
MaxRNCinURA	Maximum number of RNC in one URA.

### 9.1.37 COMMON TRANSPORT CHANNEL RESOURCES 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		–	
S-RNTI	M		9.2.1.53		YES	ignore
Cause	M		9.2.1.5		YES	ignore
Criticality Diagnostics	O		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	M		<a href="#">9.2.2.A</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	M		9.2.1.59		–	
Cause	C_ifalone		9.2.1.5		YES	ignore
Criticality Diagnostics	C_ifalone		9.2.1.13		YES	ignore

Condition	Explanation
C_ifalone	At least either of Cause IE or Criticality Diagnostics IE shall be present.



## 2 References

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

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

- [1] 3GPP TS 23.003: "Numbering, addressing and identification".
- [2] 3GPP TS 25.413: "UTRAN Iu Interface RANAP Signalling".
- [3] 3GPP TS 25.426: "UTRAN Iur and Iub Interface Data Transport & Transport Layer Signalling for DCH Data Streams".
- [4] 3GPP TS 25.427: "UTRAN Iur and Iub Interface User Plane Protocols for DCH Data Streams".
- [5] (void)
- [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)".
- [9] 3GPP TS 25.212: "Multiplexing and Channel Coding (FDD)"
- [10] UMTS 25.214: "Physical Layer Procedures (FDD)".
- [11] 3GPP TS 25.215: "Physical Layer – Measurements (FDD)".
- [12] 3GPP TS 25.221: "Physical Channels and Mapping of Transport Channels onto Physical Channels (TDD)".
- [13] 3GPP TS 25.223: "Spreading and Modulation (TDD)".
- [14] 3GPP TS 25.225: "Physical Layer – Measurements (TDD)".
- [15] 3GPP TS 25.304: "UE Procedures in Idle Mode"
- [16] 3GPP TS 25.331: "RRC Protocol Specification".
- [17] 3GPP TS 25.402: "Synchronisation in UTRAN, Stage 2".
- [18] X.680 (12/94): "Information technology - Abstract Syntax Notation One (ASN.1): Specification of basic notation".
- [19] ITU-T Recommendation X.681 (12/97): "Information technology - Abstract Syntax Notation One (ASN.1): Information object specification".
- [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: "Requirements for support of Radio Resource management (FDD)".
- [24] 3GPP TS 25.123: " Requirements for support of Radio Resource management (TDD)".
- [25] 3GPP TS 23.003: "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"](#).



## 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 section 9.3. In case there is contradiction between the tabular format in section 9.1 and the ASN.1 definition, the ASN.1 shall take precedence, except for the definition of conditions for the presence of conditional IEs, where the tabular format shall take precedence.

NOTE: The messages have been defined in accordance to the guidelines specified in [UMTS 25.924\[28\]](#).

### 9.1.2.x Range

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

### 9.1.2.y Assigned Criticality

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

## CHANGE REQUEST

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

**25.423 CR 224r4**

Current Version: **3.3.0**

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

↑ CR number as allocated by MCC support team

For submission to: **RAN #10**

list expected approval meeting # here ↑

for approval

For information

Strategic   
non-strategic

(for SMG  
Use only)

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

**Proposed change affects:**

(at least one should be marked with an X)

(U)SIM

ME

UTRAN / Radio

Core Network

**Source:**

R-WG3

**Date:**

20.Nov. 2000

**Subject:**

Corrections to Transport Format Set

**Work item:**

**Category:**

(only one category shall be marked with an X)

- F Correction
- A Corresponds to a correction in an earlier release
- B Addition of feature
- C Functional modification of feature
- D Editorial modification

**Release:**

- Phase 2
- Release 96
- Release 97
- Release 98
- Release 99
- Release 00

**Reason for change:**

The coding of the Transmission Time Interval for the option "dynamic" is corrected in the tabular format and in the ASN.1 code.

Consequences if not accepted:

Without this change, the signalling of the TTI mode (dynamic vs. static) is ambiguous in the tabular format and erroneous in the ASN.1 code.

Changes for R3:

The OPTIONAL has been removed from TransportFormatSet-ModeDP to make the ASN.1 code syntactically correct. The comment was edited accordingly.

Changes for R4:

Changes from R3-002971 are merged into the CR. The changes relative to R3 are marked yellow.

**Clauses affected:**

9.2.1.64; 9.3.4

**Other specs affected:**

- Other 3G core specifications
- Other GSM core specifications
- MS test specifications
- BSS test specifications
- O&M specifications

- List of CRs: 25.433: CR275r3
- List of CRs:
- List of CRs:
- List of CRs:
- List of CRs:

**Other comments:**

Added in rev1: Indentation corrected  
Added in rev2: Semantics description "Value "dynamic" for TDD only"



help.doc

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

### 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
<b>Transport Format Set</b>				
<b>&gt;Dynamic Transport Format Information</b>		1..<maxTFcount>		
>>Number of Transport blocks	M		INTEGER (0..512)	
>>Transport Block Size	C – Blocks		INTEGER (0..5000)	Bits
>>CHOICE mode	M			
>>>TDD				
>>>>Transmission Time Interval Information	C- TTIdynamic	1..<maxTTIcount>		
>>>>>Transmission Time Interval	MC- TTIdynamic	1..<maxTTIcount>	Enumerated( 10, 20, 40, 80,...)	msec
<b>&gt;Semi-static Transport Format Information</b>		1		
>>Transmission Time Interval	C- TTIsemistatic M		ENUMERATED (10, 20, 40, 80, dynamic, ...)	msec Value "dynamic" for TDD only
>>Type of Channel Coding	M		ENUMERATED (No coding, Convolutional, Turbo,...)	
>>Coding Rate	C – Coding		ENUMERATED (1/2, 1/3,...)	
>>Rate Matching Attribute	M		INTEGER (1..maxRM)	
>>CRC size	M		ENUMERATED (0, 8, 12, 16, 24,...)	
>>CHOICE mode	M			
>>>>TDD				
>>>>>2 <sup>nd</sup> Interleaving Mode	M		Enumerated (Frame related, Timeslot related,...)	

Condition	Explanation
Blocks	This IE is only present if "Number of Transport Blocks" is greater than 0.
Coding	This IE is only present if IE "Type of channel coding" is "Convolutional" or "Turbo"
TTIdynamic	This IE is mandatory if the "Transmission Time Interval" of the "Semi-static Transport Format Information" is "dynamic" not defined as semistatic parameter. Otherwise it is absent.
TTIsemistatic	This IE is mandatory if not defined as dynamic parameter. Otherwise it is absent.

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

### 9.3.4 Information Element Definitions

```
TransmissionIntervalDynamic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    ...
}
```

```
TransmissionIntervalSemiStatic ::= ENUMERATED {
    msec-10,
    msec-20,
    msec-40,
    msec-80,
    dynamic,
    ...
}
```

```
TransmitDiversityIndicator ::= ENUMERATED {
    active,
    inactive
}
```

```
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
    },
    refTFCNumber RefTFCNumber
}
```

```
TFCS ::= SEQUENCE {
```

```

tFCSvalues          CHOICE {
  no-Split-in-TFCI          TFCS-TFCSList,
  split-in-TFCI             SEQUENCE {
    transportFormatCombination-DCH  TFCS-DCHList,
    signallingMethod                CHOICE {
      tFCI-Range                    TFCS-MappingOnDSCHList,
      explicit                       TFCS-DSCHList
    }
  }
},
iE-Extensions        ProtocolExtensionContainer  { { TFCS-ExtIEs} }    OPTIONAL,
...
}

TFCS-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

TFCS-TFCSList ::= SEQUENCE (SIZE (1..maxNrOfTFCs)) OF
  SEQUENCE {
    cTFC                TFCS-CTFC,
    tFC-Beta            TransportFormatCombination-Beta    OPTIONAL,
    iE-Extensions       ProtocolExtensionContainer  { { TFCS-TFCSList-ExtIEs} }    OPTIONAL,
    ...
  }

TFCS-TFCSList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

TFCS-CTFC ::= INTEGER (0..maxCTFC)

TFCS-DCHList ::= SEQUENCE (SIZE (1..maxTFCILCombs)) OF
  SEQUENCE {
    cTFC                TFCS-CTFC,
    iE-Extensions       ProtocolExtensionContainer  { { TFCS-DCHList-ExtIEs} }    OPTIONAL,
    ...
  }

TFCS-DCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
  ...
}

TFCS-MappingOnDSCHList ::= SEQUENCE (SIZE (1..maxNoTFCIGroups)) OF
  SEQUENCE {
    maxTFCI-field2-Value  TFCS-MaxTFCI-field2-Value,
    cTFC-DSCH             TFCS-CTFC,
    iE-Extensions         ProtocolExtensionContainer  { { TFCS-MappingOnDSCHList-ExtIEs} }    OPTIONAL,
    ...
  }

```



```

TFCS-MappingOnDSCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-MaxTFCI-field2-Value ::= INTEGER (1..maxTFCI2Combs-1)

TFCS-DSCHList ::= SEQUENCE (SIZE (1..maxTFCI2Combs)) OF
    SEQUENCE {
        cTFC-DSCH          TFCS-CTFC,
        iE-Extensions      ProtocolExtensionContainer { { TFCS-DSCHList-ExtIEs } } OPTIONAL,
        ...
    }

TFCS-DSCHList-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

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

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

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

TransportFormatSet-ModeDP ::= CHOICE {
    tdd                    TDD-TransportFormatSet-ModeDPTransmissionTimeIntervallList,
    -- This IE is mandatory if the "Transmission Time Interval" of the "Semi-static Transport Format Information" is "dynamic". Otherwise it is
    absent. This IE is mandatory if not defined as semistatic parameter, otherwise it is absent --
    notApplicable          NULL,
    ...
}

TDD-TransportFormatSet-ModeDP ::= SEQUENCE {

```

```

TransmissionTimeIntervalInformation TransmissionTimeIntervalInformation OPTIONAL,
-- This IE is mandatory if the "Transmission Time Interval" of the "Semi-static Transport Format Information" is "dynamic". Otherwise it is absent.
iE-Extensions ProtocolExtensionContainer { {TDD-TransportFormatSet-ModeDP-ExtIEs} } OPTIONAL,
...
}
}
TDD-TransportFormatSet-ModeDP-ExtIEs RNSAP-PROTOCOL-EXTENSION ::= {
...
}

```

```

TransmissionTimeIntervalInformationList ::= SEQUENCE (SIZE (1..maxTTI-Count)) OF
SEQUENCE {
    transmissionTimeInterval TransmissionTimeIntervalDynamic,
    iE-Extensions ProtocolExtensionContainer { {TransmissionTimeIntervalInformationList-ExtIEs} } OPTIONAL,
    ...
}

```

```

TransmissionTimeIntervalInformationList-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 is only present if channelCoding is 'convolutional' or 'turbo' --,
    rateMatchingAttribute RateMatchingAttribute,
    cRC-Size CRC-Size,
    mode TransportFormatSet-ModeSSP,
    iE-Extensions ProtocolExtensionContainer { {TransportFormatSet-Semi-staticPart-ExtIEs} } OPTIONAL,
    ...
}

```

```

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

```

```

TransportFormatSet-ModeSSP ::= CHOICE {
    tdd SecondInterleavingMode,
    notApplicable NULL,
}

```

} ...

## CHANGE REQUEST

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

**25.423 CR 226r1**

Current Version: **3.3.0**

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

↑ CR number as allocated by MCC support team

For submission to: **TSG RAN #10** for approval   
 list expected approval meeting # here ↑ for information

strategic  (for SMG use only)  
 non-strategic

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

**Proposed change affects:**

(at least one should be marked with an X)

(U)SIM  ME  UTRAN / Radio  Core Network

**Source:**

R-WG3

**Date:**

October 2000

**Subject:**

Update of Physical Channel Reconfiguration procedure text, addressing optional IE's.

**Work item:**

**Category:**

(only one category  
 Shall be marked  
 With an X)

F Correction   
 A Corresponds to a correction in an earlier release   
 B Addition of feature   
 C Functional modification of feature   
 D Editorial modification

**Release:**

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

**Reason for change:**

Procedure Text needed updating to ensure handling of TDD UL and DL DPCH optional IEs given in PHYSICAL CHANNEL RECONFIGURATION REQUEST message.

A typo has been amended in PHYSICAL CHANNEL RECONFIGURATION COMMAND message.

Without this CR, the specification will be unclear and incomplete.

**Clauses affected:**

8.3.8.2; 9.1.22.

**Other specs**

**Affected:**

Other 3G core specifications  → List of CRs:  
 Other GSM core specifications  → List of CRs:  
 MS test specifications  → List of CRs:  
 BSS test specifications  → List of CRs:  
 O&M specifications  → List of CRs:

**Other**

**comments:**

## 8.3.8 Physical Channel Reconfiguration

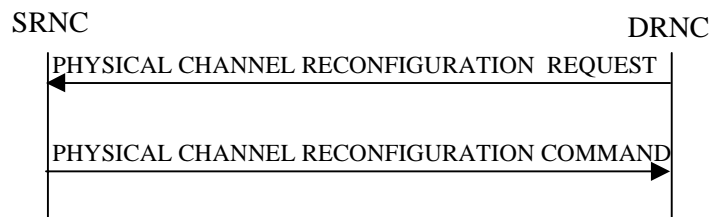
### 8.3.8.1 General

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 procedure, Unsynchronised Radio Link Reconfiguration procedure or Radio Link Deletion procedure is ongoing.

### 8.3.8.2 Successful Operation



**Figure 1: 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.

Upon reception of the PHYSICAL CHANNEL RECONFIGURATION REQUEST, the SRNC shall decide an appropriate execution time for the change.

[TDD – The SRNC shall apply the new values for any of TDD Channelisation Code IE, Burst Type IE, Midamble shift IE, Time Slot IE, TDD Physical Channel Offset IE, Repetition Period IE, Repetition Length IE, or TFCI presence IE 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, Burst Type IE, Midamble shift 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.]

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.

## 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	O		9.2.1.13		YES	ignore