# TSG-RAN Meeting #14
# Kyoto, Japan, 11 - 14, December, 2001

*TSGRP#14(01) 0863*

**Title:** **Agreed CRs to TS 25.433**

**Source:** **TSG-RAN WG3**

**Agenda item:** **8.3.3/8.3.4/9.4.3**

| RP Tdoc | R3 Tdoc | Spec | CR_Num | Rev | Release | CR_Subject | Cat | Cur_Ver | New_Ver | Workitem |
|---|---|---|---|---|---|---|---|---|---|---|
| RP-010863 | R3-013449 | 25.433 | 576 | | R99 | Clarification of the Transaction ID | F | 3.7.0 | 3.8.0 | TEI |
| RP-010863 | R3-013341 | 25.433 | 565 | | Rel-4 | Clarification for the Power Adjustment Type IE in the DL POWER | A | 4.2.1 | 4.3.0 | TEI |
| RP-010863 | R3-013537 | 25.433 | 566 | 1 | R99 | Forward Compatibility for DL Power Balancing | F | 3.7.0 | 3.8.0 | TEI |
| RP-010863 | R3-013539 | 25.433 | 567 | 1 | Rel-4 | Forward Compatibility for DL Power Balancing | A | 4.2.1 | 4.3.0 | TEI |
| RP-010863 | R3-013356 | 25.433 | 568 | | R99 | Reconfiguration clarification | F | 3.7.0 | 3.8.0 | TEI |
| RP-010863 | R3-013357 | 25.433 | 569 | | Rel-4 | Reconfiguration clarification | A | 4.2.1 | 4.3.0 | TEI |
| RP-010863 | R3-013652 | 25.433 | 571 | 2 | Rel-4 | Addition of amendment to clarify the PER encoding of bitstrings | A | 4.2.1 | 4.3.0 | TEI |
| RP-010863 | R3-013340 | 25.433 | 564 | | R99 | Clarification for the Power Adjustment Type IE in the DL POWER | F | 3.7.0 | 3.8.0 | TEI |
| RP-010863 | R3-013663 | 25.433 | 575 | 2 | Rel-4 | Transport Bearer replacement clarification for the DSCH case | A | 4.2.1 | 4.3.0 | TEI |
| RP-010863 | R3-013650 | 25.433 | 570 | 2 | R99 | Addition of amendment to clarify the PER encoding of bitstrings | F | 3.7.0 | 3.8.0 | TEI |
| RP-010863 | R3-013451 | 25.433 | 577 | | Rel-4 | Clarification of the Transaction ID | A | 4.2.1 | 4.3.0 | TEI |
| RP-010863 | R3-013584 | 25.433 | 578 | 1 | R99 | CPCH-related corrections | F | 3.7.0 | 3.8.0 | TEI |
| RP-010863 | R3-013585 | 25.433 | 579 | 1 | Rel-4 | CPCH-related corrections | A | 4.2.1 | 4.3.0 | TEI |
| RP-010863 | R3-013590 | 25.433 | 581 | | R99 | Correction of S field length | F | 3.7.0 | 4.3.0 | TEI |
| RP-010863 | R3-013591 | 25.433 | 582 | | Rel-4 | Correction of S field length | A | 4.2.1 | 4.3.0 | TEI |
| RP-010863 | R3-013662 | 25.433 | 574 | 2 | R99 | Transport Bearer replacement clarification for the DSCH case | F | 3.7.0 | 3.8.0 | TEI |
| RP-010863 | R3-013298 | 25.433 | 561 | | R99 | Procedure Code Criticality in Error Indication | F | 3.7.0 | 3.8.0 | TEI |
| RP-010863 | R3-013604 | 25.433 | 560 | 1 | Rel-4 | Rel-4 specific terminology corrections | F | 4.2.1 | 4.3.0 | TEI |
| RP-010863 | R3-013299 | 25.433 | 562 | | Rel-4 | Procedure Code Criticality in Error Indication | A | 4.2.1 | 4.3.0 | TEI |

**3GPP TSG-RAN3 #25 Meeting**
**Makuhari, Japan, 26 – 30 November 2001**

***Tdoc R3-013604***

*CR-Form-v3*

# CHANGE REQUEST

⌘ **25.433** **CR** **560** ⌘ rev **1** ⌘ Current version: **4.2.1** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☒ Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Rel-4 specific terminology corrections |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November 2001 |
| ***Category:*** | ⌘ | **F** |
| ***Release:*** | ⌘ | REL-4 |

*Use one of the following categories:*
***F*** *(essential correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(Addition of feature),*
***C*** *(Functional modification of feature)*
***D*** *(Editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*

| | |
|---|---|
| *2* | *(GSM Phase 2)* |
| *R96* | *(Release 1996)* |
| *R97* | *(Release 1997)* |
| *R98* | *(Release 1998)* |
| *R99* | *(Release 1999)* |
| *REL-4* | *(Release 4)* |
| *REL-5* | *(Release 5)* |

| | | |
|---|---|---|
| ***Reason for change:*** | ⌘ | In several places, there is still mention of the DRNS/DNRC.<br>The Rel-4 specification text needs to be aligned on R99 specification text for the parts that have not changed from one Release to another. |
| ***Summary of change:*** | ⌘ | DRNC/DRNS is replaced by Node B.<br>Correction to a sentence in § 8.3.5.4 to align to the R99 specification text.<br><br>This change has no impact. |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, the specification will remain incorrect. |

| | | |
|---|---|---|
| ***Clauses affected:*** | ⌘ | 8.2.17.2, 8.3.5.4 |
| ***Other specs affected:*** | ⌘ | ☐ Other core specifications ⌘<br>☐ Test specifications<br>☐ O&M Specifications |
| ***Other comments:*** | ⌘ | |

**How to create CRs using this form:**
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 8.2.17 Radio Link Setup

### 8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B.

[FDD – The RL Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of one or more DSCHs on one radio link.]

[TDD – The RL Setup procedure is used for establish one radio link including one or more transport channels. The transport channels can be a mixture of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

### 8.2.17.2 Successful Operation

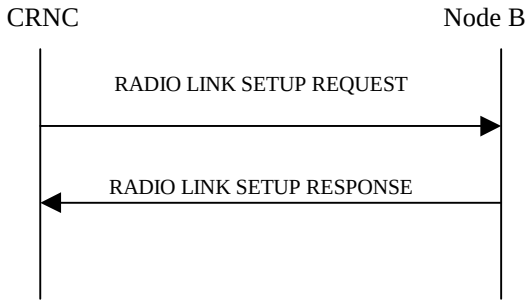


**Figure 24: Radio Link Setup procedure, Successful Operation**

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

Upon reception of RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

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

**Transport Channels Handling:**

**DCH(s):**

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

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

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

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

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

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

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

The received *Frame Handling Priority* IE specified for each Transport Channel should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new RL(s) has been activated.

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

[FDD – In the RADIO LINK SETUP RESPONSE message the Node B shall indicate with the *Diversity Indication* IE whether the RL is combined or not. In case of combining, only the *Reference RL ID* IE shall be included to indicate one of the existing RLs that the concerned RL is combined with. In case of not combining the Node B shall include in the RL SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

[TDD – The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

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

**DSCH(s):**

If the *DSCH Information* IE is present, the Node B shall configure the new DSCH(s) according to the parameters given in the message.

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

The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DSCH of this RL.

**[TDD – USCH(s)]:**

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

[TDD – In case the *USCH Information* IE is present, the Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each USCH of this RL.]

**Physical Channels Handling:**

**[FDD – Compressed Mode]:**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

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

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

- [FDD - If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

**[FDD – DL Code Information]:**

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

**General:**

[FDD – If the *Propagation Delay* IE is included, the Node B may use this information to speed up the detection of L1 synchronisation.]

[FDD – The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control.]

[1.28Mcps TDD – The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control according [19] and [21].]

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

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

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

**Radio Link Handling:**

**[FDD – Transmit Diversity]:**

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

**DL Power Control:**

[FDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH of the RL until either UL synchronisation on the Uu is achieved for the RLS or a DL POWER CONTROL REQUEST message is received. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message. During compressed mode, the $P_{SIR}(k)$ , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k.]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the Node B shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the life time of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]]

[TDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH and on each Time Slot of the RL until the UL synchronisation on the Uu is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3), but shall always be kept within the maximum and minimum limit specified in the RL SETUP REQUEST message.]

[TDD – If the [3.84Mcps TDD - *DL Time Slot ISCPInfo* IE] or [1.28Mcps TDD - *DL Timeslot ISCP LCR* IE] is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

[FDD – If the received *Inner Loop DL PC Status* IE is set to "Active", the Node B shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLs according to ref. [10]]

**General:**

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

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

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity for EDSCHPC* IE, the Node B shall activate enhanced DSCH power control, if supported, using the *SSDT Cell Identity for EDSCHPC* IE and *SSDT Cell Identity Length* IE as well as *Enhanced DSCH PC* IE in accordance with ref. [10] subclause 5.2.2. If the RADIO LINK SETUP REQUEST message includes both *SSDT Cell Identity* IE and *SSDT Cell Identity for EDSCHPC* IE, then the Node B shall ignore the value in *SSDT Cell Identity for EDSCHPC* IE]

**[FDD – Radio Link Set Handling]:**

[FDD – The *First RLS Indicator* IE indicates if the concerning RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the Node B together with the value of the *DL TPC pattern 01 count* IE which the Node B has received in the Cell Setup procedure, to determine the initial TPC pattern in the DL of the concerning RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

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

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

[FDD – 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]

**Response Message:**

If the RLs are successfully established, the Node B shall start reception on the new RL(s) and respond with a RADIO LINK SETUP RESPONSE message.

After sending of the RADIO LINK SETUP RESPONSE message the Node B shall continuously attempt to obtain UL synchronisation on the Uu and start reception on the new RL. [FDD – The Node B shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [16].] [TDD – The Node B shall start transmission on the new RL immediately as specified in [16].]

### 8.2.17.3 Unsuccessful Operation

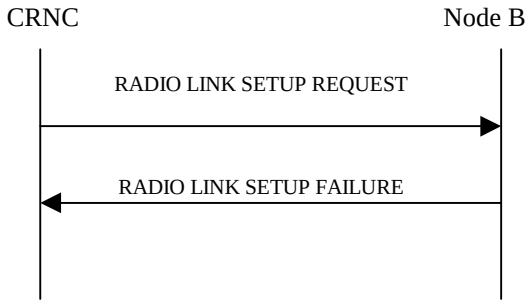


**Figure 25: Radio Link Setup procedure: Unsuccessful Operation**

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK SETUP FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD – If some radio links were established successfully, the Node B shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.]

Typical cause values are as follows:

**Radio Network Layer Cause**

- Combining not supported
- Combining Resources not available
- Requested Tx Diversity Mode not supported
- Number of DL codes not supported
- Number of UL codes not supported
- UL SF not supported
- DL SF not supported
- Dedicated Transport Channel Type not supported
- Downlink Shared Channel Type not supported
- Uplink Shared Channel Type not supported
- CM not supported
- DPC mode change not supported

**Transport Layer Cause**

- Transport Resources Unavailable

**Miscellaneous Cause**

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

### 8.2.17.4 Abnormal Conditions

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

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the Node B shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message.

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

## 8.3.5 Unsynchronised Radio Link Reconfiguration

### 8.3.5.1 General

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

The Unsynchronised Radio Link Reconfiguration procedure is used when there is no need to synchronise the time of the switching from the old to the new configuration in one Node B used for a UE-UTRAN connection with any other Node B also used for the UE–UTRAN connection.

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

### 8.3.5.2 Successful Operation

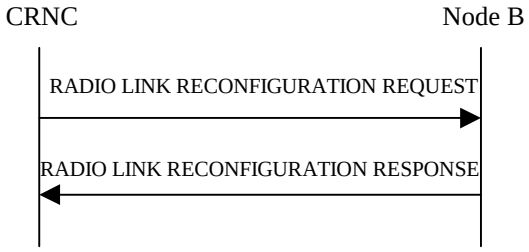


**Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation**

The Unsynchronised Radio Link Reconfiguration procedure is initiated by the CRNC by sending the message RADIO LINK RECONFIGURATION REQUEST to the Node B. The message shall use the Communication Control Port assigned for this Node B Communication Context.

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

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

**DCH Modification:**

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

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

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

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

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

- If the *DCHs to Modify* IE includes the *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs to Modify* IE includes the *ToAWS* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

- If the *DCHs to Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

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

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

**DCH Addition:**

If the RADIO LINK RECONFIGURATION REQUEST message includes any *DCH to Add* IEs, the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCHs in the new configuration. In particular:

- If a *DCHs to Add* IE includes multiple *DCH Specific Info* IEs for a DCH to be added, the Node B shall treat the DCHs in the *DCHs to Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.

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

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

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

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

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

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

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

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

**DCH Deletion:**

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

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

**[FDD - Physical Channel Modification:]**

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

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

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

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

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

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

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

[FDD – If the RADIO LINK RECONFIGURATION REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE the Node B shall store the new information about the Transmission Gap Pattern Sequences to be used in the new Compressed Mode Configuration. This new Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

**[TDD – UL/DL CCTrCH Modification]**

[TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH to modify* IE or *DL CCTrCH to modify* IE in the Radio Link(s), the Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message.]

[TDD – If the *UL/DL CCTrCH to modify* IE includes *TFCS* IE, and/or *Puncture Limit* IE the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

**[TDD – UL/DL CCTrCH Deletion]**

[TDD – If the RADIO LINK RECONFIGURATION REQUEST message includes any *UL CCTrCH to delete* IE or *DL CCTrCH to delete* IE, the Node B shall not include this CCTrCH in the new configuration.]

**RL Information:**

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

- If the *RL Information* IE includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and not transmit with a higher power on any Downlink DPCH of the Radio Link once the new configuration is being used. [FDD - During compressed mode, the $P_{SIR}(k)$ , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k.]

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

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

**General**

If the requested modifications are allowed by the Node B, the Node B has successfully allocated the required resources, and changed to the new configuration it shall respond to the CRNC with the RADIO LINK RECONFIGURATION RESPONSE message.

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

The Node B shall include in the RADIO LINK RECONFIGURATION RESPONSE message the *Transport Layer Address* IE and the *Binding ID* IE in the *DCH Information Response* IE for any Transport Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE. The detailed frame protocol handling during transport bearer replacement is described in [16], section 5.10.1.

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

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

### 8.3.5.3 Unsuccessful Operation

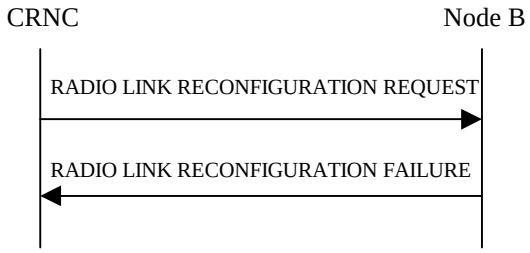


**Figure 35: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation**

If the Node B cannot allocate the necessary resources for all the new DCHs of one set of coordinated, DCHs requested to be set-up it shall regard the Unsynchronised Radio Link Reconfiguration procedure as having failed.

If the requested Unsynchronised Radio Link Reconfiguration procedure fails for one or more Radio Link(s) the Node B shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC, indicating the reason for failure.

Typical cause values are as follows:

**Radio Network Layer Cause**

- CM not supported

**Transport Layer Cause**

- Transport Resources Unavailable

**Miscellaneous Cause**

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

### 8.3.5.4 Abnormal Conditions

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

[FDD – If the *RL Information* IE contains the *DL Code Information* IE and this IE includes *DL Scrambling Code* and *FDD DL Channelisation Code Number* IEs not matching the DL Channelisation code(s) already allocated to the Radio Link identified by *RL ID* IE, then the Node B shall consider the Unsynchronised Radio Link Reconfiguration procedure as having failed ~~for this particular Radio Link~~ and it shall send the RADIO LINK RECONFIGURATION FAILURE message to the CRNC.

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the Node B shall regard the Unsynchronised Radio Link Reconfiguration Preparation procedure as failed and shall respond with a RADIO LINK RECONFIGURATION FAILURE message.

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

**3GPP TSG-RAN3 Meeting #25** ***R3-013298***
**Makuhari, Japan, 26th – 30th November, 2001**

*CR-Form-v4*

# CHANGE REQUEST

⌘ **25.433** **CR** **561** ⌘ rev ⌘ Current version: **3.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network [X] Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Procedure Code Criticality in Error Indication |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | 2001-11-20 |
| ***Category:*** | ⌘ | **F** |
| ***Release:*** | ⌘ | R99 |

*Use one of the following categories:*
***F*** *(correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(addition of feature),*
***C*** *(functional modification of feature)*
***D*** *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*
*2 (GSM Phase 2)*
*R96 (Release 1996)*
*R97 (Release 1997)*
*R98 (Release 1998)*
*R99 (Release 1999)*
*REL-4 (Release 4)*
*REL-5 (Release 5)*

| | | |
|---|---|---|
| ***Reason for change:*** | ⌘ | It is stated in the semantics description for the Procedure Criticality IE within the Criticality Diagnostics IE that the value "Ignore" shall never be used. This was true as long as this IE was only used when reporting an error on procedure code level. But since it is now also used within the ERROR INDICATION message to identify the message being reported, the value "Ignore" must also be allowed. |
| ***Summary of change:*** | ⌘ | The statement that the value "Ignore" shall never be used for the Procedure Code IE within the Criticality Diagnostics IE is removed.<br><br>Impact analysis<br><br>Impact assessment towards the previous version of the specification (same release):<br>This CR has isolated impact because the contradiction between what is stated within the semantics description for the Criticality Diagnostics IE and the description in chapter 10 of the usage of ERROR INDICATION when reporting errors may lead to different implementations.<br>This CR has impact under functional point of view.<br>The impact can be considered isolated because the change only affects one function, i.e. Error Indication. |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, there is a contradiction between what is stated within the semantics description for the Criticality Diagnostics IE and the description in chapter 10 of the usage of ERROR INDICATION when reporting errors. |

| | | | | |
|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | 9.2.1.17 | | |
| ***Other specs*** | ⌘ | [X] Other core specifications | ⌘ | CR382 25.413 3.7.0<br>CR383 25.413 4.2.0<br>CR071 25.419 3.6.0<br>CR072 25.419 4.2.0<br>CR508 25.423 3.7.0 |

| | | |
|---|---|---|
| | | CR509 25.423 4.2.0<br>CR562 25.433 4.2.1<br>CR012 25.453 5.1.0 |
| ***affected:*** | Test specifications<br>O&M Specifications | |
| ***Other comments:*** ⌘ | | |

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

### 9.2.1.17 Criticality Diagnostics

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

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

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| **Procedure ID** | | 0..1 | | Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error |
| >Procedure Code | M | | INTEGER (0..255) | |
| >Ddmode | M | | ENUMERATED (FDD, TDD, Common) | Common = common to FDD and TDD. |
| Triggering Message | O | | ENUMERATED(initiating message, successful outcome, unsuccessful outcome, outcome) | The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication. |
| Procedure Criticality | O | | ENUMERATED(reject, ignore, notify) | This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure). ~~The value 'ignore' shall never be used.~~ |
| Transaction ID | O | | Transaction ID 9.2.1.62 | |
| **Information Element Criticality Diagnostics** | | 0 to <maxnoof errors> | | |
| >IE Criticality | M | | ENUMERATED(reject, ignore, notify) | The IE Criticality is used for reporting the criticality of the triggering IE. The value 'ignore' shall never be used. |
| >IE ID | M | | INTEGER (0..65535) | The IE ID of the not understood or missing IE |
| >Repetition Number | O | | INTEGER (0..255) | The *Repetition Number* IE gives<br>• in case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence<br>• in case of a missing IE: The number of occurrences up to but not including the missing occurrence.<br>Note: All the counted occurrences of the reported IE must have the same topdown hierachical message structure of IEs with assigned criticality above them. |
| >Message Structure | O | | 9.2.1.45A | The *Message Structure* IE describes the structure where the not understood or missing IE was detected.<br>This IE is included if the not |

| | | | | |
|---|---|---|---|---|
| | | | | understood IE is not the top level of the message. |
| >Type of Error | M | | ENUMERATED(not understood, missing, …) | |

| Range bound | Explanation |
|---|---|
| *Maxnooferrors* | Maximum no. of IE errors allowed to be reported with a single message. |

**3GPP TSG-RAN3 Meeting #25** ***R3-013299***
**Makuhari, Japan, 26th – 30th November, 2001**

*CR-Form-v4*

# CHANGE REQUEST

⌘ **25.433** **CR** **562** ⌘ rev ⌘ Current version: **4.2.1** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Procedure Code Criticality in Error Indication |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | 2001-11-20 |
| ***Category:*** | ⌘ | **A** |
| ***Release:*** | ⌘ | REL-4 |

*Use one of the following categories:*
***F*** *(correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(addition of feature),*
***C*** *(functional modification of feature)*
***D*** *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*
*2 (GSM Phase 2)*
*R96 (Release 1996)*
*R97 (Release 1997)*
*R98 (Release 1998)*
*R99 (Release 1999)*
*REL-4 (Release 4)*
*REL-5 (Release 5)*

***Reason for change:*** ⌘ It is stated in the semantics description for the Procedure Criticality IE within the Criticality Diagnostics IE that the value "Ignore" shall never be used. This was true as long as this IE was only used when reporting an error on procedure code level. But since it is now also used within the ERROR INDICATION message to identify the message being reported, the value "Ignore" must also be allowed.

***Summary of change:*** ⌘ The statement that the value "Ignore" shall never be used for the Procedure Code IE within the Criticality Diagnostics IE is removed.

Impact analysis

Impact assessment towards the previous version of the specification (same release):
This CR has isolated impact because the contradiction between what is stated within the semantics description for the Criticality Diagnostics IE and the description in chapter 10 of the usage of ERROR INDICATION when reporting errors may lead to different implementations.
This CR has impact under functional point of view.
The impact can be considered isolated because the change only affects one function, i.e. Error Indication.

***Consequences if not approved:*** ⌘ If this CR is not approved, there is a contradiction between what is stated within the semantics description for the Criticality Diagnostics IE and the description in chapter 10 of the usage of ERROR INDICATION when reporting errors.

***Clauses affected:*** ⌘ 9.2.1.17

***Other specs*** ⌘ **X** Other core specifications ⌘
CR382 25.413 3.7.0
CR383 25.413 4.2.0
CR071 25.419 3.6.0
CR072 25.419 4.2.0
CR508 25.423 3.7.0

| | | |
|---|---|---|
| ***affected:*** | | CR509 25.423 4.2.0<br>CR561 25.433 3.7.0<br>CR012 25.453 5.1.0 |
| | Test specifications | |
| | O&M Specifications | |
| ***Other comments:*** ⌘ | | |

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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

### 9.2.1.17 Criticality Diagnostics

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

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

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| **Procedure ID** | | 0..1 | | Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error |
| >Procedure Code | M | | INTEGER (0..255) | |
| >Ddmode | M | | ENUMERATED (FDD, TDD, Common) | Common = common to FDD and TDD. |
| Triggering Message | O | | ENUMERATED(initiating message, successful outcome, unsuccessful outcome, outcome) | The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication. |
| Procedure Criticality | O | | ENUMERATED(reject, ignore, notify) | This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure). ~~The value 'ignore' shall never be used.~~ |
| Transaction ID | O | | Transaction ID 9.2.1.62 | |
| **Information Element Criticality Diagnostics** | | 0 to <maxnoof errors> | | |
| >IE Criticality | M | | ENUMERATED(reject, ignore, notify) | The IE Criticality is used for reporting the criticality of the triggering IE. The value 'ignore' shall never be used. |
| >IE ID | M | | INTEGER (0..65535) | The IE ID of the not understood or missing IE |
| >Repetition Number | O | | INTEGER (0..255) | The *Repetition Number* IE gives<br>• in case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence<br>• in case of a missing IE: The number of occurrences up to but not including the missing occurrence.<br>Note: All the counted occurrences of the reported IE must have the same topdown hierachical message structure of IEs with assigned criticality above them. |
| >Message Structure | O | | 9.2.1.45A | The *Message Structure* IE describes the structure where the not understood or missing IE was detected.<br>This IE is included if the not |

| | | | | |
|---|---|---|---|---|
| | | | | understood IE is not the top level of the message. |
| >Type of Error | M | | ENUMERATED(not understood, missing, …) | |

| Range bound | Explanation |
|---|---|
| *Maxnooferrors* | Maximum no. of IE errors allowed to be reported with a single message. |

**3GPP TSG-RAN3 Meeting #25**
**Makuhari, Japan, 26th – 30th November 2001**

***Tdoc R3-013340***

*CR-Form-v3*

# CHANGE REQUEST

⌘ **25.433** **CR** **564** ⌘ rev ⌘ Current version: **3.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☒ Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Clarification for the *Power Adjustment Type* IE in the DL POWER CONTROL REQUEST message |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November 2001 |
| ***Category:*** | ⌘ | **F** |
| ***Release:*** | ⌘ | R99 |

*Use one of the following categories:*
***F*** *(essential correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(Addition of feature),*
***C*** *(Functional modification of feature)*
***D*** *(Editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*

| | |
|---|---|
| *2* | *(GSM Phase 2)* |
| *R96* | *(Release 1996)* |
| *R97* | *(Release 1997)* |
| *R98* | *(Release 1998)* |
| *R99* | *(Release 1999)* |
| *REL-4* | *(Release 4)* |
| *REL-5* | *(Release 5)* |

***Reason for change:*** ⌘ In the Downlink Power Control procedure text, the description about the lifetime of the *Power Adjustment Type* IE in the context is missing. In addition, it seems that a clarification that if the Power Adjustment Type is set to “Common”, future RL's will have automatic power balancing activation is needed.

***Summary of change:*** ⌘ This CR proposes to clarify that;

- The Power Adjustment Type in the context shall be changed when the new value of the *Power Adjustment Type* IE is received.
- If the Power Adjustment Type is set to “Common”, future RL's will have automatic power balancing activation.

***Consequences if not approved:*** ⌘ If this CR is not approved, the handling of the *Power Adjustment Type* IE is unclear.

Impact Analysis:

Impact assessment towards the previous version of the specification (same release):

This CR has isolated impact with the previous version of the specification (same release) because within some existing implementations the handling of the *Power Adjustment Type* IE is not aligned with this proposal.

ONLY if there is impact:

This CR has an impact under functional point of view.

The impact can be considered isolated because the change affects one system function namely the handling of the *Power Adjustment Type* IE.

***Clauses affected:*** ⌘ 8.3.7.2

| | | | | |
|---|---|---|---|---|
| ***Other specs affected:*** | ⌘ | X | Other core specifications | ⌘ CR565 on TS 25.433 V4.2.1 (REL-4)<br>CR511 on TS 25.423 V3.7.0 (R99)<br>CR512 on TS 25.423 V4.2.0 (REL-4) |
| | | | Test specifications | |
| | | | O&M Specifications | |
| ***Other comments:*** | ⌘ | | | |

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http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 8.3.7 Downlink Power Control [FDD]

### 8.3.7.1 General

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

### 8.3.7.2 Successful Operation


**Figure 37: Downlink Power Control procedure, Successful Operation**

The procedure is initiated by the CRNC sending a DL POWER CONTROL REQUEST message to the Node B.

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

If the value of the *Power Adjustment Type* IE is *Common*, the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "Common". As long as the Power Balancing Adjustment Type of the Node B Communication Context is set to "Common", the Node B shall perform the power adjustment (see below) for all existing and future radio links associated with the context identified by the *Node B Communication Context ID* IE and use~~ing~~ a common DL reference power level.

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

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

**3GPP TSG-RAN3 Meeting #25**
**Makuhari, Japan, 26th – 30th November 2001**

***Tdoc R3-013341***

*CR-Form-v3*

# CHANGE REQUEST

⌘ **25.433** **CR** **565** ⌘ rev ⌘ Current version: **4.2.1** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☒ Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Clarification for the *Power Adjustment Type* IE in the DL POWER CONTROL REQUEST message |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November 2001 |
| ***Category:*** | ⌘ | **A** |
| ***Release:*** | ⌘ | REL-4 |

*Use one of the following categories:*
***F*** *(essential correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(Addition of feature),*
***C*** *(Functional modification of feature)*
***D*** *(Editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*

| | |
|---|---|
| *2* | *(GSM Phase 2)* |
| *R96* | *(Release 1996)* |
| *R97* | *(Release 1997)* |
| *R98* | *(Release 1998)* |
| *R99* | *(Release 1999)* |
| *REL-4* | *(Release 4)* |
| *REL-5* | *(Release 5)* |

***Reason for change:*** ⌘ In the Downlink Power Control procedure text, the description about the lifetime of the *Power Adjustment Type* IE in the context is missing. In addition, it seems that a clarification that if the Power Adjustment Type is set to “Common”, future RL's will have automatic power balancing activation is needed.

***Summary of change:*** ⌘ This CR proposes to clarify that;

- The Power Adjustment Type in the context shall be changed when the new value of the *Power Adjustment Type* IE is received.
- If the Power Adjustment Type is set to “Common”, future RL's will have automatic power balancing activation.

***Consequences if not approved:*** ⌘ If this CR is not approved, the handling of the *Power Adjustment Type* IE is unclear.

Impact Analysis:

Impact assessment towards the previous version of the specification (same release):

This CR has isolated impact with the previous version of the specification (same release) because within some existing implementations the handling of the *Power Adjustment Type* IE is not aligned with this proposal.

ONLY if there is impact:

This CR has an impact under functional point of view.

The impact can be considered isolated because the change affects one system function namely the handling of the *Power Adjustment Type* IE.

***Clauses affected:*** ⌘ 8.3.7.2

| | | | | |
|---|---|---|---|---|
| ***Other specs*** | ⌘ | X | Other core specifications | ⌘ CR564 on TS 25.433 V3.7.0 (R99)<br>CR511 on TS 25.423 V3.7.0 (R99)<br>CR512 on TS 25.423 V4.2.0 (REL-4) |
| ***affected:*** | | | Test specifications | |
| | | | O&M Specifications | |
| ***Other comments:*** | ⌘ | | | |

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Comprehensive information and tips about how to create CRs can be found at:
http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 8.3.7 Downlink Power Control [FDD]

### 8.3.7.1 General

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

### 8.3.7.2 Successful Operation


**Figure 37: Downlink Power Control procedure, Successful Operation**

The procedure is initiated by the CRNC sending a DL POWER CONTROL REQUEST message to the Node B.

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

If the value of the *Power Adjustment Type* IE is *Common*, the Power Balancing Adjustment Type of the Node B Communication Context shall be set to "Common". As long as the Power Balancing Adjustment Type of the Node B Communication Context is set to "Common", the Node B shall perform the power adjustment (see below) for all existing and future radio links associated with the context identified by the *Node B Communication Context ID* IE and use~~ing~~ a common DL reference power level.

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

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

**3GPP TSG-RAN3 Meeting #25**
**Makuhari, Japan, 26th – 30th November 2001**

***Tdoc R3-013537***

*CR-Form-v3*

# CHANGE REQUEST

⌘ **25.433** **CR** **566** ⌘ rev **1** ⌘ Current version: **3.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Forward Compatibility for DL Power Balancing |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November 2001 |
| ***Category:*** | ⌘ | **F** |
| ***Release:*** | ⌘ | R99 |

*Use one of the following categories:*
***F*** *(essential correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(Addition of feature),*
***C*** *(Functional modification of feature)*
***D*** *(Editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*
*2* *(GSM Phase 2)*
*R96* *(Release 1996)*
*R97* *(Release 1997)*
*R98* *(Release 1998)*
*R99* *(Release 1999)*
*REL-4* *(Release 4)*
*REL-5* *(Release 5)*

***Reason for change:*** ⌘ In the current RL Setup/Addition procedure text, it is stated that the initial DL TX power level is not varied until UL synchronisation is achieved on the Uu interface for the concerning RLS or a DL POWER CONTROL REQUEST message is received. However, in Rel.5, initial DL TX power level will be varied, if supported, when the power balancing related IEs are included in the RL Setup Request message. In order to reflect this description into Rel.5 specifications easily, it would be better to modify the current procedure text.

***Summary of change:*** ⌘ Rev.1

The proposed text, "The Power Balancing is activated due to the reception of a DL POWER CONTROL REQUEST message", was deleted.

Rev.0

This CR proposes to clarify that the initial DL TX power level is not varied until UL synchronisation is achieved on the Uu interface for the concerning RLS or Power Balancing is activated. In R99, Power Balancing is activated only due to the reception of a DL POWER CONTROL REQUEST.

***Consequences if not approved:*** ⌘ If this CR is not approved, it might be difficult to introduce the description of the Rel.5 functionality.

Impact Analysis:

Impact assessment towards the previous version of the specification (same release):

This CR has no impact with the previous version of the specification (same release) because this proposal only changes the description and this change does not have an impact on any functionality.

***Clauses affected:*** ⌘ 8.2.17.2 and 8.3.1.2

| | | | | |
|---|---|---|---|---|
| ***Other specs*** | ⌘ | **X** | Other core specifications | ⌘ CR567 on TS 25.433 V4.2.1 (REL-4)<br>CR513 on TS 25.423 V3.7.0 (R99)<br>CR514 on TS 25.423 V4.2.0 (REL-4) |
| ***affected:*** | | | Test specifications | |
| | | | O&M Specifications | |
| ***Other comments:*** | ⌘ | | | |

**How to create CRs using this form:**

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2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 8.2.17 Radio Link Setup

### 8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B.

[FDD – The RL Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of one or more DSCHs on one radio link.]

[TDD – The RL Setup procedure is used for establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

### 8.2.17.2 Successful Operation

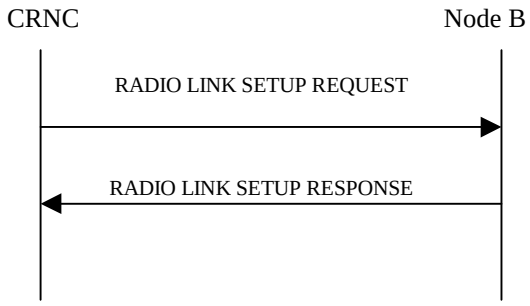


**Figure 24: Radio Link Setup procedure, Successful Operation**

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

Upon reception of RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

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

**Transport Channels Handling:**

**DCH(s):**

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

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

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

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

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

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

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

The received *Frame Handling Priority* IE specified for each Transport Channel should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new RL(s) has been activated.

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

[FDD – In the RADIO LINK SETUP RESPONSE message the Node B shall indicate with the *Diversity Indication* IE whether the RL is combined or not. In case of combining, only the *Reference RL ID* IE shall be included to indicate one of the existing RLs that the concerned RL is combined with. In case of not combining the Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

[TDD – The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

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

**DSCH(s):**

If the *DSCH Information* IE is present, the Node B shall configure the new DSCH(s) according to the parameters given in the message.

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

The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DSCH of this RL.

**[TDD – USCH(s)]:**

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

[TDD – In case the *USCH Information* IE is present, the Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each USCH of this RL.]

**Physical Channels Handling:**

**[FDD - Compressed Mode]:**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

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

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

- [FDD - If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

**[FDD - DL Code Information]:**

[FDD – When more than one DL DPDCH is 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*".]

**General:**

[FDD – If the *Propagation Delay* IE is included, the Node B may use this information to speed up the detection of L1 synchronisation.]

[FDD – The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control.]

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

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

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

**Radio Link Handling:**

**[FDD - Transmit Diversity]:**

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

**DL Power Control:**

[FDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH of the RL until either UL synchronisation on the Uu is achieved for the RLS or or Power Balancing is activated~~a DL POWER CONTROL REQUEST message is received~~. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) with DPC MODE=0 and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message. During compressed mode, the $P_{SIR}(k)$ , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k.]

[TDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH of the RL until the UL synchronisation on the Uu is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3), but shall always be kept within the maximum and minimum limit specified in the RL SETUP REQUEST message.]

[TDD – If the *DL Time Slot ISCP Info* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

[FDD – If the received *Inner Loop DL PC Status* IE is set to "Active", the Node B shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

<Not affected part is omitted>

## 8.3.1 Radio Link Addition

### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the Node B for one or more additional RLs towards a UE when there is already a Node B communication context for this UE in the Node B.

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

### 8.3.1.2 Successful Operation

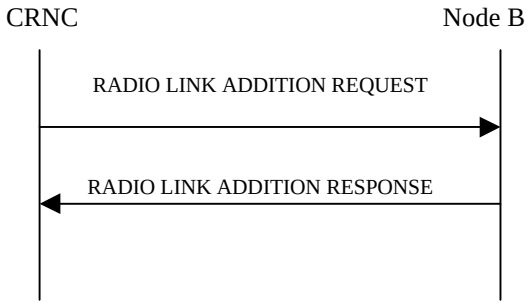


**Figure: 28 Radio Link Addition procedure, Successful Operation**

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

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

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

**Physical Channels Handling:**

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

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

**[FDD - Compressed Mode]:**

[FDD – If the RADIO LINK ADDITION REQUEST includes the *Compressed Mode Deactivation Flag* IE with value "Deactivate", the Node B shall not activate any compressed mode pattern in the new RLs. In all the other cases (Flag set to "Maintain Active" or not present), the ongoing compressed mode (if existing) shall be applied also to the added RLs.]

[FDD- If the RADIO LINK ADDITION REQUEST contains the *Transmission Gap Pattern Sequence Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated for each DL Channelisation Code for which the *Transmission Gap Pattern Sequence Code Information* IE is set to "Code Change".]

**[FDD - DL Code Information]:**

[FDD – When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to ref. [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*".]

**[TDD - CCTrCH Handling]:**

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

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

**Radio Link Handling:**

**Diversity Combination Control:**

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

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

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

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

[TDD – The Node B shall include in the RADIO LINK ADDITION RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH and USCH.]

**[FDD - Transmit Diversity]:**

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

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

**DL Power Control:**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL DPCH of the RL when starting transmission until either UL synchronisation on the Uu is achieved for the RLS or Power Balancing is activated~~a DL POWER REQUEST message is received~~. If no *Initial DL Transmission power* IE is included, the Node B shall use any transmission power level currently used on already existing RL's for this UE. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) with DPC MODE=0 and the downlink power control procedure (see 8.3.7).]

[TDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu is achieved for the RL. If no *Initial DL Transmission power* IE is included, the Node B shall use any transmission power level currently used on already existing RL's for this UE. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]

If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL power* IE, the Node B shall store this value and not transmit with a higher power on any DL DPCH of the RL. If no *Maximum DL power* IE is included, any Maximum DL power stored for already existing RLs for this UE shall be applied. [FDD - During compressed mode, the $P_{SIR}(k)$ , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k.]

If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL power* IE, the Node B shall store this value and never transmit with a lower power on any DL DPCH of the RL. If no *Minimum DL power* IE is included, any Minimum DL power stored for already existing RLs for this UE shall be applied.

[TDD – If the RADIO LINK ADDITION REQUEST message includes the *DL Time Slot ISCP Info* IE, the Node B shall use the indicated value when deciding the DL TX Power for each timeslot as specified in ref. [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

**3GPP TSG-RAN3 Meeting #25**
**Makuhari, Japan, 26th – 30th November 2001**

***Tdoc R3-013539***

*CR-Form-v3*

# CHANGE REQUEST

⌘ **25.433** **CR** **567** ⌘ rev **1** ⌘ Current version: **4.2.1** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Forward Compatibility for DL Power Balancing |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November 2001 |
| ***Category:*** | ⌘ | **A** |
| ***Release:*** | ⌘ | REL-4 |

*Use one of the following categories:*
***F*** *(essential correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(Addition of feature),*
***C*** *(Functional modification of feature)*
***D*** *(Editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*
*2* *(GSM Phase 2)*
*R96* *(Release 1996)*
*R97* *(Release 1997)*
*R98* *(Release 1998)*
*R99* *(Release 1999)*
*REL-4* *(Release 4)*
*REL-5* *(Release 5)*

***Reason for change:*** ⌘ In the current RL Setup/Addition procedure text, it is stated that the initial DL TX power level is not varied until UL synchronisation is achieved on the Uu interface for the concerning RLS or a DL POWER CONTROL REQUEST message is received. However, in Rel.5, initial DL TX power level will be varied, if supported, when the power balancing related IEs are included in the RL Setup Request message. In order to reflect this description into Rel.5 specifications easily, it would be better to modify the current procedure text.

***Summary of change:*** ⌘ Rev.1

The proposed text, "The Power Balancing is activated due to the reception of a DL POWER CONTROL REQUEST message", was deleted.

Rev.0

This CR proposes to clarify that the initial DL TX power level is not varied until UL synchronisation is achieved on the Uu interface for the concerning RLS or Power Balancing is activated. In R99, Power Balancing is activated only due to the reception of a DL POWER CONTROL REQUEST.

***Consequences if not approved:*** ⌘ If this CR is not approved, it might be difficult to introduce the description of the Rel.5 functionality.

Impact Analysis:

Impact assessment towards the previous version of the specification (same release):

This CR has no impact with the previous version of the specification (same release) because this proposal only changes the description and this change does not have an impact on any functionality.

***Clauses affected:*** ⌘ 8.2.17.2 and 8.3.1.2

| | | | | | |
|---|---|---|---|---|---|
| ***Other specs*** | ⌘ | X | Other core specifications | ⌘ | CR566 on TS 25.433 V3.7.0 (R99)<br>CR513 on TS 25.423 V3.7.0 (R99)<br>CR514 on TS 25.423 V4.2.0 (REL-4) |
| ***affected:*** | | | Test specifications | | |
| | | | O&M Specifications | | |
| ***Other comments:*** | ⌘ | | | | |

**How to create CRs using this form:**

Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 8.2.17 Radio Link Setup

### 8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B.

[FDD – The RL Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of one or more DSCHs on one radio link.]

[TDD – The RL Setup procedure is used for establish one radio link including one or more transport channels. The transport channels can be a mixture of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

### 8.2.17.2 Successful Operation

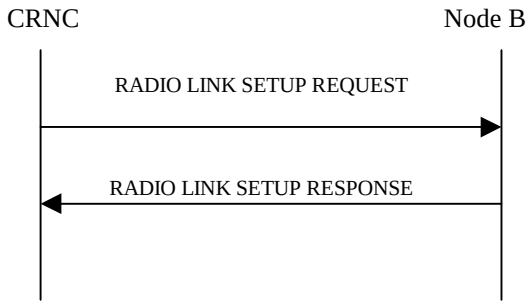


**Figure 24: Radio Link Setup procedure, Successful Operation**

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

Upon reception of RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

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

**Transport Channels Handling:**

**DCH(s):**

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

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

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

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

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

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

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

The received *Frame Handling Priority* IE specified for each Transport Channel should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new RL(s) has been activated.

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

[FDD – In the RADIO LINK SETUP RESPONSE message the Node B shall indicate with the *Diversity Indication* IE whether the RL is combined or not. In case of combining, only the *Reference RL ID* IE shall be included to indicate one of the existing RLs that the concerned RL is combined with. In case of not combining the Node B shall include in the RL SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

[TDD – The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

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

**DSCH(s):**

If the *DSCH Information* IE is present, the Node B shall configure the new DSCH(s) according to the parameters given in the message.

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

The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DSCH of this RL.

**[TDD – USCH(s)]:**

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

[TDD – In case the *USCH Information* IE is present, the Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each USCH of this RL.]

**Physical Channels Handling:**

**[FDD – Compressed Mode]:**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

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

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

- [FDD - If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

**[FDD – DL Code Information]:**

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

**General:**

[FDD – If the *Propagation Delay* IE is included, the Node B may use this information to speed up the detection of L1 synchronisation.]

[FDD – The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control.]

[1.28Mcps TDD – The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control according [19] and [21].]

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

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

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

**Radio Link Handling:**

**[FDD – Transmit Diversity]:**

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

**DL Power Control:**

[FDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH of the RL until either UL synchronisation on the Uu is achieved for the RLS or Power Balancing is activated~~a DL POWER CONTROL REQUEST message is received~~. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message. During compressed mode, the $P_{SIR}(k)$ , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k.]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the Node B shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the life time of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]]

[TDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH and on each Time Slot of the RL until the UL synchronisation on the Uu is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3), but shall always be kept within the maximum and minimum limit specified in the RL SETUP REQUEST message.]

[TDD – If the [3.84Mcps TDD - *DL Time Slot ISCPInfo* IE] or [1.28Mcps TDD - *DL Timeslot ISCP LCR* IE] is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

[FDD – If the received *Inner Loop DL PC Status* IE is set to "Active", the Node B shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLs according to ref. [10]]

<Not affected part is omitted>

## 8.3.1 Radio Link Addition

### 8.3.1.1 General

This procedure is used for establishing the necessary resources in the Node B for one or more additional RLs towards a UE when there is already a Node B communication context for this UE in the Node B.

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

### 8.3.1.2 Successful Operation

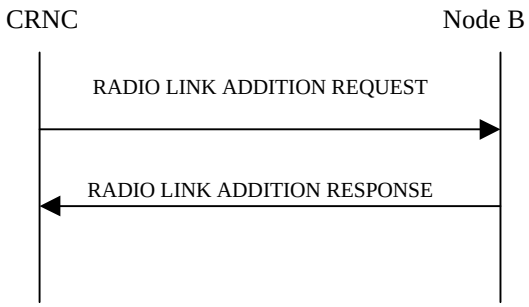


**Figure: 28 Radio Link Addition procedure, Successful Operation**

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

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

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

**Physical Channels Handling:**

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

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

**[FDD – Compressed Mode]:**

[FDD – If the RADIO LINK ADDITION REQUEST includes the *Compressed Mode Deactivation Flag* IE with value "Deactivate", the Node B shall not activate any compressed mode pattern in the new RLs. In all the other cases (Flag set to "Maintain Active" or not present), the ongoing compressed mode (if existing) shall be applied also to the added RLs.]

[FDD- If the RADIO LINK ADDITION REQUEST contains the *Transmission Gap Pattern Sequence Code Information* IE for any of the allocated DL Channelisation Codes, the Node B shall apply the alternate scrambling code as indicated for each DL Channelisation Code for which the *Transmission Gap Pattern Sequence Code Information* IE is set to "Code Change".]

**[FDD – DL Code Information]:**

[FDD – When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to ref. [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*".]

**[TDD – CCTrCH Handling]:**

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

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

**Radio Link Handling:**

**Diversity Combination Control:**

The *Diversity Control Field* IE indicates for each RL whether the Node B shall combine the new RL with existing RL(s) or not. If the *Diversity Control Field* IE is set to "May", then Node B shall decide for any of the alternatives. If the *Diversity Control Field* IE is set to "Must", the Node B shall combine the RL with one

of the other RL. When a new RL is to be combined, the Node B shall choose which RL(s) to combine it with. If the *Diversity Control Field* IE is set to "Must not" the Node B shall not combine the RL with any other existing RL.

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

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

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

[TDD – The Node B shall include in the RADIO LINK ADDITION RESPONSE message both the *Transport Layer Address* IE and the *Binding ID* IE for the transport bearer to be established for each DSCH and USCH.]

**[FDD – Transmit Diversity]:**

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

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

**DL Power Control:**

[FDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL DPCH of the RL when starting transmission until either UL synchronisation on the Uu is achieved for the RLS or Power Balancing is activated~~a DL POWER REQUEST message is received~~. If no *Initial DL Transmission power* IE is included, the Node B shall use any transmission power level currently used on already existing RL's for this UE. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) with DPC MODE currently configured for the relevant Node B Communication Context and the downlink power control procedure (see 8.3.7).]

[TDD – If the RADIO LINK ADDITION REQUEST message includes the [3.84Mcps TDD - *Initial DL Transmission Power* IE] [1.28Mcps TDD – *DL Time Slot ISCP Info LCR* IE], the Node B shall apply the given power to the transmission on each DL DPCH and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu is achieved for the RL. If no *Initial DL Transmission power* IE is included, the Node B shall use any transmission power level currently used on already existing RL's for this UE. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]

If the RADIO LINK ADDITION REQUEST message includes the *Maximum DL power* IE, the Node B shall store this value and not transmit with a higher power on any DL DPCH of the RL. If no *Maximum DL power* IE is included, any Maximum DL power stored for already existing RLs for this UE shall be applied. [FDD - During compressed mode, the $P_{SIR}(k)$ , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k.]

If the RADIO LINK ADDITION REQUEST message includes the *Minimum DL power* IE, the Node B shall store this value and never transmit with a lower power on any DL DPCH of the RL. If no *Minimum DL power* IE is included, any Minimum DL power stored for already existing RLs for this UE shall be applied.

[TDD – If the RADIO LINK ADDITION REQUEST message includes the *DL Time Slot ISCP Info* IE, the Node B shall use the indicated value when deciding the DL TX Power for each timeslot as specified in ref.

[21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

**3GPP TSG-RAN3 Meeting #25** ***R3-013356***
**Makuhari, Japan, 26th – 30th November, 2001**

*CR-Form-v4*

# CHANGE REQUEST

⌘ **25.433** **CR** **568** ⌘ ev **-** ⌘ Current version: **3.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

| | | |
|---|---|---|
| ***Title:*** ⌘ | Reconfiguration clarification | |
| ***Source:*** ⌘ | R-WG3 | |
| ***Work item code:*** ⌘ | TEI | ***Date:*** ⌘ November, 2001 |
| ***Category:*** ⌘ | **F** | ***Release:*** ⌘ R99 |

*Use one of the following categories:*
***F*** *(correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(addition of feature),*
***C*** *(functional modification of feature)*
***D*** *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*
*2 (GSM Phase 2)*
*R96 (Release 1996)*
*R97 (Release 1997)*
*R98 (Release 1998)*
*R99 (Release 1999)*
*REL-4 (Release 4)*
*REL-5 (Release 5)*

| | |
|---|---|
| ***Reason for change:*** ⌘ | The current specification version states that the Synchronised Radio Link Reconfiguration Preparation procedure is 'used to prepare a new configuration of ALL Radio Links', although it is possible to specify one or several RLs in the RL Information. |
| ***Summary of change:*** ⌘ | The procedure text has been updated to reflect the message structure in the tabular format. The procedure text is now aligned also with Unsynchronised radio Link Reconfiguration when stating that the procedure is 'used to reconfigure Radio Link(s)'.<br>Impact Analysis:<br><br>Impact assessment towards the previous version of the specification (same release):<br><br>This CR has no impact with the previous version of the specification (same release) for implementations aligned with the added clarification. For implementations based on different assumptions, this CR may have isolated impact. |
| ***Consequences if not approved:*** ⌘ | The conflict between the procedure text and the message structure remains, and might cause misunderstandings. |

| | | | |
|---|---|---|---|
| ***Clauses affected:*** ⌘ | 8.3.2 | | |
| ***Other specs*** ⌘ | **X** | Other core specifications ⌘ | CR 569 on 25.433 (R4)<br>CR 515 on 25.423 (R99)<br>CR 516 on 25.423 (REL-4) |
| ***affected:*** | ☐ | Test specifications | |
| | ☐ | O&M Specifications | |
| ***Other comments:*** ⌘ | | | |

**How to create CRs using this form:**
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 8.3.2 Synchronised Radio Link Reconfiguration Preparation

### 8.3.2.1 General

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

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

**3GPP TSG-RAN3 Meeting #25** ***R3-013357***
**Makuhari, Japan, 26th – 30th November, 2001**

*CR-Form-v4*

# CHANGE REQUEST

⌘ **25.433** **CR** **569** ⌘ ev **-** ⌘ Current version: **4.2.1** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Reconfiguration clarification |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November, 2001 |
| ***Category:*** | ⌘ | **A** |
| ***Release:*** | ⌘ | REL-4 |

*Use one of the following categories:*
***F*** *(correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(addition of feature),*
***C*** *(functional modification of feature)*
***D*** *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*
*2 (GSM Phase 2)*
*R96 (Release 1996)*
*R97 (Release 1997)*
*R98 (Release 1998)*
*R99 (Release 1999)*
*REL-4 (Release 4)*
*REL-5 (Release 5)*

| | | |
|---|---|---|
| ***Reason for change:*** | ⌘ | The current specification version states that the Synchronised Radio Link Reconfiguration Preparation procedure is 'used to prepare a new configuration of ALL Radio Links', although it is possible to specify one or several RLs in the RL Information. |
| ***Summary of change:*** | ⌘ | The procedure text has been updated to reflect the message structure in the tabular format. The procedure text is now aligned also with Unsynchronised radio Link Reconfiguration when stating that the procedure is 'used to reconfigure Radio Link(s)'.<br><br>Impact Analysis:<br><br>Impact assessment towards the previous version of the specification (same release):<br><br>This CR has no impact with the previous version of the specification (same release) for implementations aligned with the added clarification. For implementations based on different assumptions, this CR may have isolated impact. This CR is backward compatible towards the previous release, being a cat. A CR. |
| ***Consequences if not approved:*** | ⌘ | The conflict between the procedure text and the message structure remains, and might cause misunderstandings. |

| | | | | |
|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | 8.3.2 | | |
| ***Other specs affected:*** | ⌘ | **X** Other core specifications | ⌘ | CR 568 on 25.433 (R99)<br>CR 515 on 25.423 (R99)<br>CR 516 on 25.423 (Rel-4) |
| | | ☐ Test specifications | | |
| | | ☐ O&M Specifications | | |

***Other comments:*** ⌘

**How to create CRs using this form:**
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 8.3.2 Synchronised Radio Link Reconfiguration Preparation

### 8.3.2.1 General

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

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

**3GPP TSG-RAN3 Meeting #25** ***R3-013650***
**Makuhari, Japan, 26th – 30th November, 2001**

*CR-Form-v4*

# CHANGE REQUEST

⌘ **25.433** **CR** **570** ⌘ ev **2** ⌘ Current version: **3.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Addition of amendment to clarify the PER encoding of bitstrings |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November, 2001 |
| ***Category:*** | ⌘ | **F** |
| ***Release:*** | ⌘ | R99 |

*Use one of the following categories:*
***F*** *(correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(addition of feature),*
***C*** *(functional modification of feature)*
***D*** *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*

| | |
|---|---|
| *2* | *(GSM Phase 2)* |
| *R96* | *(Release 1996)* |
| *R97* | *(Release 1997)* |
| *R98* | *(Release 1998)* |
| *R99* | *(Release 1999)* |
| *REL-4* | *(Release 4)* |
| *REL-5* | *(Release 5)* |

| | | |
|---|---|---|
| ***Reason for change:*** | ⌘ | There is a lack of specification w.r.t. PER encoding of bitstrings in X691. A clarification will appear in the 2002 version of X.691, but as RAN3 specifications refer to the 1997 version, this amendement will not automatically apply to RAN3 specifications. Therefore a specific clarification is needed within the RAN3 TSs. For further reasoning, please refer to document R3-013363. |
| ***Summary of change:*** | ⌘ | A clarification was added to subclause 9.4.<br>Rev.1: a slight rewording of the added note was performed and the reference to X.680 was reformulated. Rev2: tdoc number was added on the cover page. |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, NBAP will still refer to an incomplete specification w.r.t. to the PER encoding of bitstrings.<br><br>Impact Analysis:<br>Impact assessment towards the previous version of the specification (same release):<br>This CR has no impact on the previous version of the specification (same release) for implementations aligned with the added clarification. For implementations based otherwise on different assumptions, this CR may have isolated/non isolated impact, depending on the single implementation choices. It must be stated that this interpretation is the assumed one in ITU-T and the clarification was added only for completeness. |

| | | | | |
|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | 9.4 | | |
| ***Other specs*** | ⌘ | **X** Other core specifications | ⌘ | CR 074 SABP R4, CR 519 RNSAP R99, CR 073 SABP R99, CR 571 NBAP R4, CR 520 RNSAP R4, CR 385 RANAP R99, CR 386 RANAP R4, CR 013 PCAP R5 |

| | | |
|---|---|---|
| ***Affected:*** | ☐ Test specifications<br>☐ O&M Specifications | |
| ***Other comments:*** ⌘ | | |

**How to create CRs using this form:**
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1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 9.4 Message Transfer Syntax

NBAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [11].

The following encoding rules apply in addition to what has been specified in X.691 [11]:

When a bitstring value is placed in a bit-field as specified in 15.6 to 15.11 in [11], the leading bit of the bitstring value shall be placed in the leading bit of the bit-field, and the trailing bit of the bitstring value shall be placed in the trailing bit of the bit-field.

NOTE - When using the "bstring" notation, the leading bit of the bitstring value is on the left, and the trailing bit of the bitstring value is on the right. The term ‘leading bit’ is to be interpreted as equal to the term ‘first bit’ defined in [12].

**3GPP TSG-RAN3 Meeting #25** ***R3-013652***
**Makuhari, Japan, 26th – 30th November, 2001**

*CR-Form-v4*

# CHANGE REQUEST

⌘ **25.433** **CR** **571** ⌘ ev **2** ⌘ Current version: **4.2.1** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Addition of amendment to clarify the PER encoding of bitstrings |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November, 2001 |
| ***Category:*** | ⌘ | **A** |
| ***Release:*** | ⌘ | REL-4 |

*Use one of the following categories:*
***F*** *(correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(addition of feature),*
***C*** *(functional modification of feature)*
***D*** *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*

| | |
|---|---|
| *2* | *(GSM Phase 2)* |
| *R96* | *(Release 1996)* |
| *R97* | *(Release 1997)* |
| *R98* | *(Release 1998)* |
| *R99* | *(Release 1999)* |
| *REL-4* | *(Release 4)* |
| *REL-5* | *(Release 5)* |

| | | |
|---|---|---|
| ***Reason for change:*** | ⌘ | There is a lack of specification w.r.t. PER encoding of bitstrings in X691. A clarification will appear in the 2002 version of X.691, but as RAN3 specifications refer to the 1997 version, this amendement will not automatically apply to RAN3 specifications. Therefore a specific clarification is needed within the RAN3 TSs. For further reasoning, please refer to document R3-013363. |
| ***Summary of change:*** | ⌘ | A clarification was added to subclause 9.4.<br>Rev.1: a slight rewording of the added note was performed and the reference to X.680 was reformulated. Rev2: tdoc number was added on the cover page. |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, NBAP will still refer to an incomplete specification w.r.t. to the PER encoding of bitstrings.<br><br>Impact Analysis:<br>Impact assessment towards the previous version of the specification (same release):<br>This CR has no impact on the previous version of the specification (same release) for implementations aligned with the added clarification. For implementations based otherwise on different assumptions, this CR may have isolated/non isolated impact, depending on the single implementation choices. It must be stated that this interpretation is the assumed one in ITU-T and the clarification was added only for completeness. |

| | | | | |
|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | 9.4 | | |
| ***Other specs*** | ⌘ | **X** Other core specifications | ⌘ | CR 074 SABP R4, CR 570 NBAP R99, CR 073 SABP R99, CR 519 RNSAP R99, CR 520 RNSAP R4, CR 385 RANAP R99, CR 386 RANAP R4, CR 013 PCAP R5 |

| | | |
|---|---|---|
| ***Affected:*** | ☐ Test specifications<br>☐ O&M Specifications | |
| ***Other comments:*** ⌘ | | |

**How to create CRs using this form:**
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

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2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://ftp.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2001-03 contains the specifications resulting from the March 2001 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 9.4 Message Transfer Syntax

NBAP shall use the ASN.1 Basic Packed Encoding Rules (BASIC-PER) Aligned Variant as transfer syntax as specified in ref. [11].

The following encoding rules apply in addition to what has been specified in X.691 [11]:

When a bitstring value is placed in a bit-field as specified in 15.6 to 15.11 in [11], the leading bit of the bitstring value shall be placed in the leading bit of the bit-field, and the trailing bit of the bitstring value shall be placed in the trailing bit of the bit-field.

NOTE - When using the "bstring" notation, the leading bit of the bitstring value is on the left, and the trailing bit of the bitstring value is on the right. The term ‘leading bit’ is to be interpreted as equal to the term ‘first bit’ defined in [12].

**3GPP TSG-RAN3 #25 Meeting** ***Tdoc R3-013662***
**Makuhari, Japan, 26 – 30 November 2001**

*CR-Form-v3*

# CHANGE REQUEST

⌘ **25.433** **CR** **574** ⌘ rev **2** ⌘ Current version: **3.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network [X] Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Transport Bearer replacement clarification for the DSCH case |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November 2001 |
| ***Category:*** | ⌘ | **F** |
| ***Release:*** | ⌘ | R99 |

*Use one of the following categories:*
***F*** *(essential correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(Addition of feature),*
***C*** *(Functional modification of feature)*
***D*** *(Editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*
*2 (GSM Phase 2)*
*R96 (Release 1996)*
*R97 (Release 1997)*
*R98 (Release 1998)*
*R99 (Release 1999)*
*REL-4 (Release 4)*
*REL-5 (Release 5)*

| | | |
|---|---|---|
| ***Reason for change:*** | ⌘ | The NBAP specification offers the possibility in the Synchronised Radio Link Reconfiguration to replace the transport bearer used for the DSCH. However, the exact behaviour for such a transport bearer replacement is not specified. |
| ***Summary of change:*** | ⌘ | A reference to the subclause in TS 25.435 clarifying the behaviour for a DSCH transport bearer replacement is added.<br><br>This change has isolated impact<br>As a clarification, this change is in line with the intention of the specification, thus it has no impact on implementations behaving like indicated in the CR. |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, the specification will remain incomplete. |

| | | | | |
|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | | | |
| ***Other specs affected:*** | ⌘ | [X] Other core specifications<br>☐ Test specifications<br>☐ O&M Specifications | ⌘ | TS 25.433 v4.2.1 CR 575<br>TS 25.435 v3.8.0 CR 71<br>TS 25.435 v4.2.0 CR 72 |
| ***Other comments:*** | ⌘ | | | |

**How to create CRs using this form:**
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 8.3.3 Synchronised Radio Link Reconfiguration Commit

### 8.3.3.1 General

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

The message shall use the Communication Control Port assigned for this Node B Communication Context.

### 8.3.3.2 Successful Operation


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

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

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

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

In the case of a transport channel modification for which a new transport bearer was requested and established, the switch to the new transport bearer shall also take place at the indicated CFN. The detailed frame protocol handling during transport bearer replacement is described in [16], subclause 5.10.1 and in [24], sub-clause 5.8.2.

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

### 8.3.3.3 Abnormal Conditions

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

**3GPP TSG-RAN3 #25 Meeting** ***Tdoc R3-013663***
**Makuhari, Japan, 26 – 30 November 2001**

*CR-Form-v3*

# CHANGE REQUEST

⌘ **25.433** **CR** **575** ⌘ rev **2** ⌘ Current version: **4.2.1** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network [X] Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Transport Bearer replacement clarification for the DSCH case |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November 2001 |
| ***Category:*** | ⌘ | **A** |
| ***Release:*** | ⌘ | REL-4 |

*Use one of the following categories:*
***F*** *(essential correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(Addition of feature),*
***C*** *(Functional modification of feature)*
***D*** *(Editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*

| | |
|---|---|
| *2* | *(GSM Phase 2)* |
| *R96* | *(Release 1996)* |
| *R97* | *(Release 1997)* |
| *R98* | *(Release 1998)* |
| *R99* | *(Release 1999)* |
| *REL-4* | *(Release 4)* |
| *REL-5* | *(Release 5)* |

| | | |
|---|---|---|
| ***Reason for change:*** | ⌘ | The NBAP specification offers the possibility in the Synchronised Radio Link Reconfiguration to replace the transport bearer used for the DSCH. However, the exact behaviour for such a transport bearer replacement is not specified. |
| ***Summary of change:*** | ⌘ | A reference to the subclause in TS 25.435 clarifying the behaviour for a DSCH transport bearer replacement is added.<br><br>This change has isolated impact<br>As a clarification, this change is in line with the intention of the specification, thus it has no impact on implementations behaving like indicated in the CR. |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, the specification will remain incomplete. |

| | | | | |
|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | | | |
| ***Other specs affected:*** | ⌘ | [X] Other core specifications<br>☐ Test specifications<br>☐ O&M Specifications | ⌘ | TS 25.433 v3.7.0 CR 574<br>TS 25.435 v3.8.0 CR 71<br>TS 25.435 v4.2.0 CR 72 |
| ***Other comments:*** | ⌘ | | | |

**How to create CRs using this form:**
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 8.3.3 Synchronised Radio Link Reconfiguration Commit

### 8.3.3.1 General

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

The message shall use the Communication Control Port assigned for this Node B Communication Context.

### 8.3.3.2 Successful Operation


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

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

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

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

In the case of a transport channel modification for which a new transport bearer was requested and established, the switch to the new transport bearer shall also take place at the indicated CFN. The detailed frame protocol handling during transport bearer replacement is described in [16], section 5.10.1 and in [24], sub-clause 5.8.2.

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

### 8.3.3.3 Abnormal Conditions

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

**3GPP TSG- RAN Working Group 3 Meeting #25**
**Makuhari, Japan, 26th-30th November, 2001**

***Tdoc R3-013449***

*CR-Form-v4*

# CHANGE REQUEST

⌘ **25.433** **CR** **576** ⌘ ev **-** ⌘ Current version: **3.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network **X** Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Clarification of the Transaction ID |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | 21 Nov. 2001 |
| ***Category:*** | ⌘ | **F** |
| ***Release:*** | ⌘ | R99 |

*Use one of the following categories:*
***F*** *(correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(addition of feature),*
***C*** *(functional modification of feature)*
***D*** *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*
*2 (GSM Phase 2)*
*R96 (Release 1996)*
*R97 (Release 1997)*
*R98 (Release 1998)*
*R99 (Release 1999)*
*REL-4 (Release 4)*
*REL-5 (Release 5)*

| | | |
|---|---|---|
| ***Reason for change:*** | ⌘ | The Transaction ID is used to associate all the messages belonging to the same procedure: messages belonging to the same procedure shall use the same transaction ID. The type of the Transaction ID is defined as a choice with two kinds of encoding (short and long). However, it is not clear if the UTRAN nodes should consider the Transaction ID value or also its kind of encoding when decoding. This ambiguity can cause error scenarios. |
| ***Summary of change:*** | ⌘ | Clarification added in the semantics description of the tabular format of Transaction ID IE: "The Transaction ID shall be interpreted for its integer value, not for the type of encoding ("short" or "long")".<br>Impact Analysis:<br>Impact assessment towards the previous version of the specification (same release):<br>This CR has [isolated impact] with the previous version of the specification (same release) because within some existing implementations the Transaction ID could be interpreted using not only its value but also its type, and it could trigger an Error Indication in some cases when in fact the procedure should have succeded.<br>ONLY if there is impact:<br>This CR has an impact under [protocol] point of view.<br>The impact [can] be considered isolated because the change affects only to some isolated implementations that consider both the value and type of encoding when interpreting the Transaction ID. |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, the interpretation of the Transaction ID would remain unclear and it could lead to multi-vendor interoperability problems. |

| | | | | |
|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | 9.2.1.62 | | |
| ***Other specs*** | ⌘ | **X** Other core specifications | ⌘ | TS 25.433 v4.2.1 CR-577 (REL-4)<br>TS 25.423 v3.7.0 CR-528 (R99)<br>TS 25.423 v4.2.0 CR-529 (REL-4) |

| | | |
|---|---|---|
| ***affected:*** | ☐ Test specifications<br>☐ O&M Specifications | |
| ***Other comments:*** ⌘ | | |

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3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

### 9.2.1.62 Transaction ID

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

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

| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| Transaction ID | | | CHOICE INTEGER (0..127) or INTEGER (0..32767) | The Transaction ID shall be interpreted for its integer value, not for the type of encoding ("short" or "long"). |

**3GPP TSG- RAN Working Group 3 Meeting #25**
**Makuhari, Japan, 26th-30th November, 2001**

***Tdoc R3-013451***

*CR-Form-v4*

# CHANGE REQUEST

⌘ **25.433** **CR** **577** ⌘ ev **-** ⌘ Current version: **4.2.1** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network [X] Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Clarification of the Transaction ID |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | 21 Nov. 2001 |
| ***Category:*** | ⌘ | **A** |
| ***Release:*** | ⌘ | REL-4 |

*Use one of the following categories:*
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***B*** *(addition of feature),*
***C*** *(functional modification of feature)*
***D*** *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*

| | |
|---|---|
| *2* | *(GSM Phase 2)* |
| *R96* | *(Release 1996)* |
| *R97* | *(Release 1997)* |
| *R98* | *(Release 1998)* |
| *R99* | *(Release 1999)* |
| *REL-4* | *(Release 4)* |
| *REL-5* | *(Release 5)* |

| | | |
|---|---|---|
| ***Reason for change:*** | ⌘ | The Transaction ID is used to associate all the messages belonging to the same procedure: messages belonging to the same procedure shall use the same transaction ID. The type of the Transaction ID is defined as a choice with two kinds of encoding (short and long). However, it is not clear if the UTRAN nodes should consider the Transaction ID value or also its kind of encoding when decoding. This ambiguity can cause error scenarios. |
| ***Summary of change:*** | ⌘ | Clarification added in the semantics description of the tabular format of Transaction ID IE: "The Transaction ID shall be interpreted for its integer value, not for the type of encoding ("short" or "long")".<br>Impact Analysis:<br>Impact assessment towards the previous version of the specification (same release):<br>This CR has [isolated impact] with the previous version of the specification (same release) because within some existing implementations the Transaction ID could be interpreted using not only its value but also its type, and it could trigger an Error Indication in some cases when in fact the procedure should have succeded.<br>ONLY if there is impact:<br>This CR has an impact under [protocol] point of view.<br>The impact [can] be considered isolated because the change affects only to some isolated implementations that consider both the value and type of encoding when interpreting the Transaction ID. |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, the interpretation of the Transaction ID would remain unclear and it could lead to multi-vendor interoperability problems. |

| | | | | |
|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | 9.2.1.62 | | |
| ***Other specs*** | ⌘ | [X] Other core specifications | ⌘ | TS 25.433 v3.7.0 CR-576 (R99)<br>TS 25.423 v3.7.0 CR-528 (R99)<br>TS 25.423 v4.2.0 CR-529 (REL-4) |

| | | |
|---|---|---|
| ***affected:*** | ☐ Test specifications<br>☐ O&M Specifications | |
| ***Other comments:*** ⌘ | | |

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### 9.2.1.62 Transaction ID

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

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| IE/Group Name | Presence | Range | IE type and reference | Semantics description |
|---|---|---|---|---|
| Transaction ID | | | CHOICE INTEGER (0..127) or INTEGER (0..32767) | The Transaction ID shall be interpreted for its integer value, not for the type of encoding ("short" or "long"). |

**3GPP TSG-RAN3 #25 Meeting**
**Makuhari, Japan, 26 – 30 November 2001**

***Tdoc R3-013584***

*CR-Form-v3*

# CHANGE REQUEST

⌘ **25.433** **CR** **578** ⌘ rev **1** ⌘ Current version: **3.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network [X] Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | CPCH-related corrections |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November 2001 |
| ***Category:*** | ⌘ | **F** |
| ***Release:*** | ⌘ | R99 |

*Use one of the following categories:*
***F*** *(essential correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(Addition of feature),*
***C*** *(Functional modification of feature)*
***D*** *(Editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

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*R96* *(Release 1996)*
*R97* *(Release 1997)*
*R98* *(Release 1998)*
*R99* *(Release 1999)*
*REL-4* *(Release 4)*
*REL-5* *(Release 5)*

***Reason for change:*** ⌘ In order to complete the cleaning process requested by RAN, tdoc R1-01-1251 was submitted at RAN1 #22 and approved. In this CR, several corrections have been made on the DL Power Control for channels supporting CPCH. There are only 3 fields for the DL-DPCCH for CPCH: pilot, TPC and CCC. The power of the CCC field is the same as the power of the Pilot field. It is thus clear that there is only one Power Offset needed whereas there are currently 2 such IEs in NBAP. This is defined by the following sentence in the CR 218 on TS 25.214:
"The TPC field of the DPCCH is offset relative to the pilot by PO2dB."
The NBAP specification should be aligned.
Furthermore, the IE description for the *DL Power* and the *Power Offset* IEs should be updated to reflect its use in the context of the CPCH (cf. *Initial DL transmission Power* and *PO2* IEs in COMMON TRANSPORT CHANNEL SETUP REQUEST message).

***Summary of change:*** ⌘ The Semantics Description of the *PO2* IE in the COMMON TRANSPORT CHANNEL SETUP REQUEST message is detailed to clarify the actual usage of this IE.
The *PO3* IE is removed from the COMMON TRANSPORT CHANNEL SETUP REQUEST message.
The description of the *DL Power* and *Power Offset* IEs is clarified for the different cases where they are used according to TS 25.214.

Impact Analysis:
Impact assessment towards the version 3.6.0 of the NBAP specification:
This CR has isolated impact on the CPCH functionality.
This CR has an impact under protocol point of view (deletion of the *PO3* IE) and the functional point of view as the usage of the *DL Power* and *Power Offset* IEs is clarified for the CPCH case.
The impact can be considered isolated because the change affects only the CPCH function (the *PO3* IE is deleted under the PCPCHes choice tag in the

| | | |
|---|---|---|
| | | COMMON TRANSPORT CHANNEL SETUP REQUEST message). |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, the specification will remain incorrect. |

| | | | | | |
|---|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | | | | |
| ***Other specs affected:*** | ⌘ | **X** | Other core specifications | ⌘ | TS 25.433 v4.2.1 CR 579 |
| | | | Test specifications | | |
| | | | O&M Specifications | | |
| ***Other comments:*** | ⌘ | | | | |

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## 9.1.3 COMMON TRANSPORT CHANNEL SETUP REQUEST

### 9.1.3.1 FDD Message

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Configuration Generation ID | M | | 9.2.1.16 | | YES | reject |
| CHOICE *Common Physical Channel To Be Configured* | M | | | | YES | ignore |
| *>Secondary CCPCH* | | | | | – | |
| **>>Secondary CCPCH** | | *1* | | | | |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>FDD SCCPCH Offset | M | | 9.2.2.15 | Corresponds to [7]: $S_{CCPCH,k}$ | – | |
| >>>DL Scrambling Code | C-PCH | | 9.2.2.13 | | – | |
| >>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>TFCS | M | | 9.2.1.58 | For the DL. | – | |
| >>>Secondary CCPCH Slot Format | M | | 9.2.2.43 | | – | |
| >>>TFCI Presence | C – SlotFormat | | 9.2.1.57 | Refer to TS [7] | – | |
| >>>Multiplexing Position | M | | 9.2.2.23 | | – | |
| **>>>Power Offset Information** | | 1 | | | – | |
| >>>>PO1 | M | | Power Offset 9.2.2.29 | Power offset for the TFCI bits | – | |
| >>>>PO3 | M | | Power Offset 9.2.2.29 | Power offset for the pilot bits | – | |
| >>>STTD Indicator | M | | 9.2.2.48 | | – | |
| **>>>FACH Parameters** | | *0..<maxnoofFACHs>* | | | GLOBAL | reject |
| >>>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>>Transport Format Set | M | | 9.2.1.59 | For the DL. | – | |
| >>>>ToAWS | M | | 9.2.1.61 | | – | |
| >>>>ToAWE | M | | 9.2.1.60 | | – | |
| >>>>Max FACH Power | M | | DL Power 9.2.1.21 | Maximum allowed power on the FACH. | – | |
| **>>>PCH Parameters** | | *0..1* | | | YES | reject |
| >>>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>>Transport Format | M | | 9.2.1.59 | For the DL. | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Set | | | | | | |
| >>>>ToAWS | M | | 9.2.1.61 | | – | |
| >>>>ToAWE | M | | 9.2.1.60 | | – | |
| >>>>PCH Power | M | | DL Power 9.2.1.21 | | – | |
| **>>>>PICH Parameters** | | *1* | | | – | |
| >>>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>>>PICH Power | M | | 9.2.1.49A | | – | |
| >>>>>PICH Mode | M | | 9.2.2.26 | Number of PI per frame | – | |
| >>>>>STTD Indicator | M | | 9.2.2.48 | | – | |
| *>PRACH* | | | | | – | |
| **>>PRACH** | | *1* | | | | |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>Scrambling Code Number | M | | 9.2.2.42 | | – | |
| >>>TFCS | M | | 9.2.1.58 | For the UL. | – | |
| >>>Preamble Signatures | M | | 9.2.2.31 | | – | |
| **>>>Allowed Slot Format Information** | | *1..<MaxnoofSlotFormatsPRACH>* | | | – | |
| >>>>RACH Slot Format | M | | 9.2.2.37 | | – | |
| >>>RACH Sub Channel Numbers | M | | 9.2.2.38 | | – | |
| >>>Puncture Limit | M | | 9.2.1.50 | For the UL | – | |
| >>>Preamble Threshold | M | | 9.2.2.32 | | – | |
| **>>>RACH Parameters** | | *1* | | | YES | Reject |
| >>>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>>Transport Format Set | M | | 9.2.1.59 | For the UL. | – | |
| **>>AICH Parameters** | | *1* | | | – | |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>AICH Transmission Timing | M | | 9.2.2.1 | | – | |
| >>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>AICH Power | M | | 9.2.2.D | | – | |
| >>>STTD Indicator | M | | 9.2.2.48 | | – | |
| *>PCPCHes* | | | | | – | |
| **>>CPCH Parameters** | | *1* | | | – | |
| >>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>Transport Format Set | M | | 9.2.1.59 | For the UL. | – | |
| >>>AP Preamble Scrambling Code | M | | CPCH Scrambling | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | Code Number 9.2.2.4B | | | |
| >>>CD Preamble Scrambling Code | M | | CPCH Scrambling Code Number 9.2.2.4B | | – | |
| >>>TFCS | M | | 9.2.1.58 | For the UL | – | |
| >>>CD Signatures | O | | Preamble Signatures 9.2.2.31 | Note: When not present, all CD signatures are to be used. | – | |
| >>>CD Sub Channel Numbers | | | 9.2.2.1C | | – | |
| >>>Puncture Limit | M | | 9.2.1.50 | For the UL | – | |
| >>>CPCH UL DPCCH Slot Format | M | | 9.2.2.4C | For UL CPCH message control part | – | |
| >>>UL SIR | M | | UL SIR 9.2.2.58 | | – | |
| >>>Initial DL transmission Power | M | | DL Power 9.2.1.21 | | – | |
| >>>Maximum DL Power | M | | DL Power 9.2.1.21 | | – | |
| >>>Minimum DL Power | M | | DL Power 9.2.1.21 | | – | |
| >>>PO2 | M | | Power Offset 9.2.2.29 | Power offset for the TPC bits relative to the pilot bits. | – | |
| ~~>>>PO3~~ | ~~M~~ | | ~~Power Offset 9.2.2.29~~ | ~~Power offset for the pilot bits~~ | ~~–~~ | |
| >>>FDD TPC DL Step Size | M | | 9.2.2.16 | | – | |
| >>>N_Start_Message | M | | 9.2.2.23C | | – | |
| >>>N_EOT | M | | 9.2.2.23A | | – | |
| >>>Channel Assignment Indication | M | | 9.2.2.1D | | – | |
| >>>CPCH Allowed Total Rate | M | | 9.2.2.4A | | – | |
| **>>>PCPCH Channel Information** | | *1..<maxnoofPCPCHs>* | | | – | |
| >>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>CPCH Scrambling Code Number | M | | 9.2.2.4B | For UL PCPCH | – | |
| >>>>DL Scrambling Code | M | | 9.2.2.13 | For DL CPCH message part | – | |
| >>>>FDD DL | M | | 9.2.2.14 | For DL | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Channelisation Code Number | | | | CPCH message part | | |
| >>>>PCP Length | M | | 9.2.2.24A | | – | |
| **>>>>UCSM Information** | C-NCA | *1* | | | – | |
| >>>>>Min UL Channelisation Code Length | M | | 9.2.2.22 | | – | |
| >>>>>NF_max | M | | 9.2.2.23B | | – | |
| **>>>>>Channel Request Parameters** | | *0..<maxAPSigNum>* | | | – | |
| >>>>>>AP Preamble Signature | M | | 9.2.2.1A | | – | |
| >>>>>AP Sub Channel Number | O | | 9.2.2.1B | | – | |
| **>>>VCAM Mapping Information** | C-CA | *1..<maxnoofLen>* | | Refer to TS [18] | – | |
| >>>>Min UL Channelisation Code Length | M | | 9.2.2.22 | | – | |
| >>>>NF_max | M | | 9.2.2.23B | | – | |
| >>>>Max Number of PCPCHes | M | | 9.2.2.20A | | – | |
| **>>>>SF Request Parameters** | | *1..<maxAPSigNum>* | | | – | |
| >>>>>AP Preamble Signature | M | | 9.2.2.1A | | – | |
| >>>>>AP Sub Channel Number | O | | 9.2.2.1B | | – | |
| **>>>AP-AICH Parameters** | | *1* | | | – | |
| >>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>>AP-AICH Power | M | | AICH Power 9.2.2.D | | – | |
| >>>>CSICH Power | M | | AICH Power 9.2.2.D | For CSICH bits at end of AP-AICH slot | – | |
| >>>>STTD Indicator | M | | 9.2.2.48 | | – | |
| **>>>CD/CA-ICH Parameters** | | *1* | | | – | |
| >>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>>CD/CA-ICH Power | M | | AICH Power 9.2.2.D | | – | |
| >>>>STTD Indicator | M | | 9.2.2.48 | | – | |

| Condition | Explanation |
|---|---|
| SlotFormat | The IE shall be present if the *Secondary CCPCH Slot Format* IE is set to any of the values from 8 to 17. |
| CA | The IE shall be present if the *Channel Assignment Indication* IE is set to ”CA Active”. |
| NCA | The IE shall be present if the *Channel Assignment Indication* IE is set to ”CA Inactive”. |
| PCH | The IE shall be present if the *PCH parameters* IE is not present. |

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

### 9.2.1.21 DL Power

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

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

### 9.2.2.29 Power Offset

This IE defines a power offset relative to the Downlink transmission power of a DPDCH or a Secondary CCPCH data field or a DL-DPCCH for CPCH pilot field.

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

## 9.3.3 PDU Definitions

UNCHANGED TEXT IS OMITTED

```
-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL SETUP REQUEST FDD
--
-- **************************************************************

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

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

CommonTransportChannelSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                         CRITICALITY     reject      TYPE  C-ID                                  PRESENCE
    mandatory   }|
    { ID    id-ConfigurationGenerationID                    CRITICALITY     reject      TYPE  ConfigurationGenerationID                PRESENCE
    mandatory   }|
    { ID    id-CommonPhysicalChannelType-CTCH-SetupRqstFDD      CRITICALITY     ignore      TYPE  CommonPhysicalChannelType-CTCH-SetupRqstFDD
    PRESENCE    mandatory   },
    ...
}

CommonPhysicalChannelType-CTCH-SetupRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters      Secondary-CCPCH-CTCH-SetupRqstFDD,
    pRACH-parameters                PRACH-CTCH-SetupRqstFDD,
    pCPCHes-parameters              PCPCH-CTCH-SetupRqstFDD,
    ...
}

Secondary-CCPCH-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    fdd-S-CCPCH-Offset                      FDD-S-CCPCH-Offset,
    dl-ScramblingCode                       DL-ScramblingCode   OPTIONAL,
    -- This IE shall be present if the PCH parameters IE is not present
    fdd-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    tFCS            TFCS,
    secondary-CCPCH-SlotFormat              SecondaryCCPCH-SlotFormat,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    -- This IE shall be present only if the Secondary CCPCH Slot Format IE is set to any of the values from 8 to 17
    multiplexingPosition                    MultiplexingPosition,
    powerOffsetInformation                  PowerOffsetInformation-CTCH-SetupRqstFDD,
```

```
    sTTD-Indicator                          STTD-Indicator,
    fACH-Parameters                         FACH-ParametersList-CTCH-SetupRqstFDD       OPTIONAL,
    pCH-Parameters                          PCH-Parameters-CTCH-SetupRqstFDD            OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer  { { Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

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

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

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

FACH-ParametersList-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstFDD }}

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

FACH-ParametersListIE-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstFDD

FACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    transportFormatSet                  TransportFormatSet,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    maxFACH-Power                       DL-Power,
    iE-Extensions                       ProtocolExtensionContainer  { { FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

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

PCH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-SetupRqstFDD }}

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

PCH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    transportFormatSet                  TransportFormatSet,
```

```
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    pCH-Power                           DL-Power,
    pICH-Parameters                         PICH-Parameters-CTCH-SetupRqstFDD,

    iE-Extensions                       ProtocolExtensionContainer  { { PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

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

PICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    fdd-dl-ChannelisationCodeNumber             FDD-DL-ChannelisationCodeNumber,
    pICH-Power                                  PICH-Power,
    pICH-Mode                                   PICH-Mode,
    sTTD-Indicator                              STTD-Indicator,
    iE-Extensions                               ProtocolExtensionContainer { { PICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

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

PRACH-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    scramblingCodeNumber                    ScramblingCodeNumber,
    tFCS                                        TFCS,
    preambleSignatures                          PreambleSignatures,
    allowedSlotFormatInformation                AllowedSlotFormatInformationList-CTCH-SetupRqstFDD,
    rACH-SubChannelNumbers                      RACH-SubChannelNumbers,
    ul-punctureLimit                            PunctureLimit,
    preambleThreshold                           PreambleThreshold,
    rACH-Parameters                             RACH-Parameters-CTCH-SetupRqstFDD,
    aICH-Parameters                             AICH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions                               ProtocolExtensionContainer { { PRACHItem-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

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

AllowedSlotFormatInformationList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1.. maxNrOfSlotFormatsPRACH)) OF AllowedSlotFormatInformationItem-CTCH-
SetupRqstFDD

AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    rACHSlotFormat                              RACH-SlotFormat,
    iE-Extensions                               ProtocolExtensionContainer  { { AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD-ExtIEs} }
    OPTIONAL,
```

```
    ...
}

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

RACH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ RACH-ParametersIE-CTCH-SetupRqstFDD }}

RACH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-ParametersItem-CTCH-SetupRqstFDD   CRITICALITY reject  TYPE RACH-ParametersItem-CTCH-SetupRqstFDD  PRESENCE mandatory }
}

RACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID                  CommonTransportChannelID,
    transportFormatSet                        TransportFormatSet,
    iE-Extensions                             ProtocolExtensionContainer  { { RACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
 }

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

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

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

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

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

CPCH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID       CommonTransportChannelID,
    transportFormatSet             TransportFormatSet,
    aPPreambleScramblingCode       CPCHScramblingCodeNumber,
    cDPreambleScramblingCode       CPCHScramblingCodeNumber,
```

```
    tFCS                            TFCS,
    cDSignatures                    PreambleSignatures          OPTIONAL,
    cDSubChannelNumbers             CDSubChannelNumbers         OPTIONAL,
    punctureLimit                   PunctureLimit,
    cPCH-UL-DPCCH-SlotFormat        CPCH-UL-DPCCH-SlotFormat,
    uL-SIR                          UL-SIR,
    initialDL-transmissionPower     DL-Power,
    maximumDLPower                  DL-Power,
    minimumDLPower                  DL-Power,
    pO2-ForTPC-Bits                 PowerOffset,
    pO3-ForPilotBits                PowerOffset,
    fDD-TPC-DownlinkStepSize        FDD-TPC-DownlinkStepSize,
    nStartMessage                   NStartMessage,
    nEOT                            NEOT,
    channel-Assignment-Indication   Channel-Assignment-Indication,
    cPCH-Allowed-Total-Rate         CPCH-Allowed-Total-Rate,
    pCPCHChannelInfomation          PCPCHChannelInformationList-CTCH-SetupRqstFDD,
    vCAMMapping-Information         VCAMMapping-InformationList-CTCH-SetupRqstFDD       OPTIONAL,
    -- this IE shall be present if the Channel Assignment Indication IE is set to “CA Active” --
    aP-AICH-Parameters              AP-AICH-Parameters-CTCH-SetupRqstFDD,
    cDCA-ICH-Parameters             CDCA-ICH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions                   ProtocolExtensionContainer  { { CPCH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

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

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

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

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

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

```
 }

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

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

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

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

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

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

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

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

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

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

AP-AICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    fdd-dl-ChannelisationCodeNumber             FDD-DL-ChannelisationCodeNumber,
    aP-AICH-Power                               AICH-Power,
    cSICH-Power                                 AICH-Power,
    sTTD-Indicator                              STTD-Indicator,
```

```
    iE-Extensions                           ProtocolExtensionContainer  { { AP-AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

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

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

CDCA-ICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

UNCHANGED TEXT IS OMITTED

**3GPP TSG-RAN3 #25 Meeting** ***Tdoc R3-013585***
**Makuhari, Japan, 26 – 30 November 2001**

*CR-Form-v3*

# CHANGE REQUEST

⌘ **25.433** **CR** **579** ⌘ rev **1** ⌘ Current version: **4.2.1** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network [X] Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | CPCH-related corrections |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | November 2001 |
| ***Category:*** | ⌘ | **A** |
| ***Release:*** | ⌘ | REL-4 |

*Use one of the following categories:*
***F*** *(essential correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(Addition of feature),*
***C*** *(Functional modification of feature)*
***D*** *(Editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*

| | |
|---|---|
| *2* | *(GSM Phase 2)* |
| *R96* | *(Release 1996)* |
| *R97* | *(Release 1997)* |
| *R98* | *(Release 1998)* |
| *R99* | *(Release 1999)* |
| *REL-4* | *(Release 4)* |
| *REL-5* | *(Release 5)* |

***Reason for change:*** ⌘ In order to complete the cleaning process requested by RAN, tdoc R1-01-1251 was submitted at RAN1 #22 and approved. In this CR, several corrections have been made on the DL Power Control for channels supporting CPCH. There are only 3 fields for the DL-DPCCH for CPCH: pilot, TPC and CCC. The power of the CCC field is the same as the power of the Pilot field. It is thus clear that there is only one Power Offset needed whereas there are currently 2 such IEs in NBAP. This is defined by the following sentence in the CR 218 on TS 25.214:
"The TPC field of the DPCCH is offset relative to the pilot by PO2dB."
The NBAP specification should be aligned.
Furthermore, the IE description for the *DL Power* and the *Power Offset* IEs should be updated to reflect its use in the context of the CPCH (cf. *Initial DL transmission Power* and *PO2* IEs in COMMON TRANSPORT CHANNEL SETUP REQUEST message).

***Summary of change:*** ⌘ The Semantics Description of the *PO2* IE in the COMMON TRANSPORT CHANNEL SETUP REQUEST message is detailed to clarify the actual usage of this IE.
The *PO3* IE is removed from the COMMON TRANSPORT CHANNEL SETUP REQUEST message.
The description of the *DL Power* and *Power Offset* IEs is clarified for the different cases where they are used according to TS 25.214.

Impact Analysis:
Impact assessment towards the version 4.1.0 of the NBAP specification:
This CR has isolated impact on the CPCH functionality.
This CR has an impact under protocol point of view (deletion of the *PO3* IE) and the functional point of view as the usage of the *DL Power* and *Power Offset* IEs is clarified for the CPCH case.
The impact can be considered isolated because the change affects only the CPCH function (the *PO3* IE is deleted under the PCPCHes choice tag in the

| | | |
|---|---|---|
| | | COMMON TRANSPORT CHANNEL SETUP REQUEST message). |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, the specification will remain incorrect. |

| | | | | | |
|---|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | | | | |
| ***Other specs affected:*** | ⌘ | X | Other core specifications | ⌘ | TS 25.433 v3.7.0 CR 578 |
| | | | Test specifications | | |
| | | | O&M Specifications | | |
| ***Other comments:*** | ⌘ | | | | |

**How to create CRs using this form:**
Comprehensive information and tips about how to create CRs can be found at: http://www.3gpp.org/3G_Specs/CRs.htm. Below is a brief summary:

1) Fill out the above form. The symbols above marked ⌘ contain pop-up help information about the field that they are closest to.

2) Obtain the latest version for the release of the specification to which the change is proposed. Use the MS Word "revision marks" feature (also known as "track changes") when making the changes. All 3GPP specifications can be downloaded from the 3GPP server under ftp://www.3gpp.org/specs/ For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

## 9.1.3 COMMON TRANSPORT CHANNEL SETUP REQUEST

### 9.1.3.1 FDD Message

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| C-ID | M | | 9.2.1.9 | | YES | reject |
| Configuration Generation ID | M | | 9.2.1.16 | | YES | reject |
| CHOICE *Common Physical Channel To Be Configured* | M | | | | YES | ignore |
| *>Secondary CCPCH* | | | | | – | |
| **>>Secondary CCPCH** | | *1* | | | | |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>FDD SCCPCH Offset | M | | 9.2.2.15 | Corresponds to [7]: $S_{CCPCH,k}$ | – | |
| >>>DL Scrambling Code | C-PCH | | 9.2.2.13 | | – | |
| >>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>TFCS | M | | 9.2.1.58 | For the DL. | – | |
| >>>Secondary CCPCH Slot Format | M | | 9.2.2.43 | | – | |
| >>>TFCI Presence | C – SlotFormat | | 9.2.1.57 | Refer to TS [7] | – | |
| >>>Multiplexing Position | M | | 9.2.2.23 | | – | |
| **>>>Power Offset Information** | | 1 | | | – | |
| >>>>PO1 | M | | Power Offset 9.2.2.29 | Power offset for the TFCI bits | – | |
| >>>>PO3 | M | | Power Offset 9.2.2.29 | Power offset for the pilot bits | – | |
| >>>STTD Indicator | M | | 9.2.2.48 | | – | |
| **>>>FACH Parameters** | | *0..<maxnoofFACHs>* | | | GLOBAL | reject |
| >>>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>>Transport Format Set | M | | 9.2.1.59 | For the DL. | – | |
| >>>>ToAWS | M | | 9.2.1.61 | | – | |
| >>>>ToAWE | M | | 9.2.1.60 | | – | |
| >>>>Max FACH Power | M | | DL Power 9.2.1.21 | Maximum allowed power on the FACH. | – | |
| **>>>PCH Parameters** | | *0..1* | | | YES | reject |
| >>>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>>Transport Format | M | | 9.2.1.59 | For the DL. | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Set | | | | | | |
| >>>>ToAWS | M | | 9.2.1.61 | | – | |
| >>>>ToAWE | M | | 9.2.1.60 | | – | |
| >>>>PCH Power | M | | DL Power 9.2.1.21 | | – | |
| **>>>>PICH Parameters** | | *1* | | | – | |
| >>>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>>>PICH Power | M | | 9.2.1.49A | | – | |
| >>>>>PICH Mode | M | | 9.2.2.26 | Number of PI per frame | – | |
| >>>>>STTD Indicator | M | | 9.2.2.48 | | – | |
| *>PRACH* | | | | | – | |
| **>>PRACH** | | *1* | | | | |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>Scrambling Code Number | M | | 9.2.2.42 | | – | |
| >>>TFCS | M | | 9.2.1.58 | For the UL. | – | |
| >>>Preamble Signatures | M | | 9.2.2.31 | | – | |
| **>>>Allowed Slot Format Information** | | *1..<MaxnoofSlotFormatsPRACH>* | | | – | |
| >>>>RACH Slot Format | M | | 9.2.2.37 | | – | |
| >>>RACH Sub Channel Numbers | M | | 9.2.2.38 | | – | |
| >>>Puncture Limit | M | | 9.2.1.50 | For the UL | – | |
| >>>Preamble Threshold | M | | 9.2.2.32 | | – | |
| **>>>RACH Parameters** | | *1* | | | YES | Reject |
| >>>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>>Transport Format Set | M | | 9.2.1.59 | For the UL. | – | |
| **>>AICH Parameters** | | *1* | | | – | |
| >>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>AICH Transmission Timing | M | | 9.2.2.1 | | – | |
| >>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>AICH Power | M | | 9.2.2.D | | – | |
| >>>STTD Indicator | M | | 9.2.2.48 | | – | |
| *>PCPCHes* | | | | | – | |
| **>>CPCH Parameters** | | *1* | | | – | |
| >>>Common Transport Channel ID | M | | 9.2.1.14 | | – | |
| >>>Transport Format Set | M | | 9.2.1.59 | For the UL. | – | |
| >>>AP Preamble Scrambling Code | M | | CPCH Scrambling | | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | Code Number 9.2.2.4B | | | |
| >>>CD Preamble Scrambling Code | M | | CPCH Scrambling Code Number 9.2.2.4B | | – | |
| >>>TFCS | M | | 9.2.1.58 | For the UL | – | |
| >>>CD Signatures | O | | Preamble Signatures 9.2.2.31 | Note: When not present, all CD signatures are to be used. | – | |
| >>>CD Sub Channel Numbers | | | 9.2.2.1C | | – | |
| >>>Puncture Limit | M | | 9.2.1.50 | For the UL | – | |
| >>>CPCH UL DPCCH Slot Format | M | | 9.2.2.4C | For UL CPCH message control part | – | |
| >>>UL SIR | M | | UL SIR 9.2.1.67A | | – | |
| >>>Initial DL transmission Power | M | | DL Power 9.2.1.21 | | – | |
| >>>Maximum DL Power | M | | DL Power 9.2.1.21 | | – | |
| >>>Minimum DL Power | M | | DL Power 9.2.1.21 | | – | |
| >>>PO2 | M | | Power Offset 9.2.2.29 | Power offset for the TPC bits relative to the pilot bits. | – | |
| ~~>>>PO3~~ | ~~M~~ | | ~~Power Offset 9.2.2.29~~ | ~~Power offset for the pilot bits~~ | ~~–~~ | |
| >>>FDD TPC DL Step Size | M | | 9.2.2.16 | | – | |
| >>>N_Start_Message | M | | 9.2.2.23C | | – | |
| >>>N_EOT | M | | 9.2.2.23A | | – | |
| >>>Channel Assignment Indication | M | | 9.2.2.1D | | – | |
| >>>CPCH Allowed Total Rate | M | | 9.2.2.4A | | – | |
| **>>>PCPCH Channel Information** | | *1..<maxnoofPCPCHs>* | | | – | |
| >>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>CPCH Scrambling Code Number | M | | 9.2.2.4B | For UL PCPCH | – | |
| >>>>DL Scrambling Code | M | | 9.2.2.13 | For DL CPCH message part | – | |
| >>>>FDD DL | M | | 9.2.2.14 | For DL | – | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Channelisation Code Number | | | | CPCH message part | | |
| >>>>PCP Length | M | | 9.2.2.24A | | – | |
| **>>>>UCSM Information** | C-NCA | *1* | | | – | |
| >>>>>Min UL Channelisation Code Length | M | | 9.2.2.22 | | – | |
| >>>>>NF_max | M | | 9.2.2.23B | | – | |
| **>>>>>Channel Request Parameters** | | *0..<maxAPSigNum>* | | | – | |
| >>>>>>AP Preamble Signature | M | | 9.2.2.1A | | – | |
| >>>>>AP Sub Channel Number | O | | 9.2.2.1B | | – | |
| **>>>VCAM Mapping Information** | C-CA | *1..<maxnoofLen>* | | Refer to TS [18] | – | |
| >>>>Min UL Channelisation Code Length | M | | 9.2.2.22 | | – | |
| >>>>NF_max | M | | 9.2.2.23B | | – | |
| >>>>Max Number of PCPCHes | M | | 9.2.2.20A | | – | |
| **>>>>SF Request Parameters** | | *1..<maxAPSigNum>* | | | – | |
| >>>>>AP Preamble Signature | M | | 9.2.2.1A | | – | |
| >>>>>AP Sub Channel Number | O | | 9.2.2.1B | | – | |
| **>>>AP-AICH Parameters** | | *1* | | | – | |
| >>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>>AP-AICH Power | M | | AICH Power 9.2.2.D | | – | |
| >>>>CSICH Power | M | | AICH Power 9.2.2.D | For CSICH bits at end of AP-AICH slot | – | |
| >>>>STTD Indicator | M | | 9.2.2.48 | | – | |
| **>>>CD/CA-ICH Parameters** | | *1* | | | – | |
| >>>>Common Physical Channel ID | M | | 9.2.1.13 | | – | |
| >>>>FDD DL Channelisation Code Number | M | | 9.2.2.14 | | – | |
| >>>>CD/CA-ICH Power | M | | AICH Power 9.2.2.D | | – | |
| >>>>STTD Indicator | M | | 9.2.2.48 | | – | |

| Condition | Explanation |
|---|---|
| SlotFormat | The IE shall be present if the *Secondary CCPCH Slot Format* IE is set to any of the values from 8 to 17. |
| CA | The IE shall be present if the *Channel Assignment Indication* IE is set to ”CA Active”. |
| NCA | The IE shall be present if the *Channel Assignment Indication* IE is set to ”CA Inactive”. |
| PCH | The IE shall be present if the *PCH parameters* IE is not present. |

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

### 9.2.1.21 DL Power

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

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

### 9.2.2.29 Power Offset

This IE defines a power offset relative to the Downlink transmission power of a DPDCH or a Secondary CCPCH data field or a DL-DPCCH for CPCH pilot field.

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

## 9.3.3 PDU Definitions

UNCHANGED TEXT IS OMITTED

```
-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL SETUP REQUEST FDD
--
-- **************************************************************

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

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

CommonTransportChannelSetupRequestFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                         CRITICALITY     reject      TYPE                    C-ID
    PRESENCE    mandatory   }|
    { ID    id-ConfigurationGenerationID                    CRITICALITY     reject      TYPE                    ConfigurationGenerationID
            PRESENCE    mandatory   }|
    { ID    id-CommonPhysicalChannelType-CTCH-SetupRqstFDD      CRITICALITY     ignore      TYPE                    CommonPhysicalChannelType-CTCH-
SetupRqstFDD        PRESENCE    mandatory   },
    ...
}

CommonPhysicalChannelType-CTCH-SetupRqstFDD ::= CHOICE {
    secondary-CCPCH-parameters      Secondary-CCPCH-CTCH-SetupRqstFDD,
    pRACH-parameters                PRACH-CTCH-SetupRqstFDD,
    pCPCHes-parameters              PCPCH-CTCH-SetupRqstFDD,
    ...
}

Secondary-CCPCH-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                 CommonPhysicalChannelID,
    fdd-S-CCPCH-Offset                      FDD-S-CCPCH-Offset,
    dl-ScramblingCode                       DL-ScramblingCode   OPTIONAL,
    -- This IE shall be present if the PCH parameters IE is not present
    fdd-DL-ChannelisationCodeNumber         FDD-DL-ChannelisationCodeNumber,
    tFCS            TFCS,
    secondary-CCPCH-SlotFormat              SecondaryCCPCH-SlotFormat,
    tFCI-Presence                           TFCI-Presence   OPTIONAL,
    -- This IE shall be present if the Secondary CCPCH Slot Format is set to any of the values from 8 to 17
    multiplexingPosition                    MultiplexingPosition,
```

```
    powerOffsetInformation                  PowerOffsetInformation-CTCH-SetupRqstFDD,
    sTTD-Indicator                          STTD-Indicator,
    fACH-Parameters                         FACH-ParametersList-CTCH-SetupRqstFDD       OPTIONAL,
    pCH-Parameters                          PCH-Parameters-CTCH-SetupRqstFDD            OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer  { { Secondary-CCPCHItem-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

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

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

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

FACH-ParametersList-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ FACH-ParametersListIEs-CTCH-SetupRqstFDD }}

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

FACH-ParametersListIE-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-CTCH-SetupRqstFDD

FACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    transportFormatSet                  TransportFormatSet,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    maxFACH-Power                       DL-Power,
    iE-Extensions                       ProtocolExtensionContainer  { { FACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

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

PCH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ PCH-ParametersIE-CTCH-SetupRqstFDD }}

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

PCH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
```

```
    transportFormatSet                  TransportFormatSet,
    toAWS                               ToAWS,
    toAWE                               ToAWE,
    pCH-Power                           DL-Power,
    pICH-Parameters                         PICH-Parameters-CTCH-SetupRqstFDD,

    iE-Extensions                       ProtocolExtensionContainer  { { PCH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
}

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

PICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    fdd-dl-ChannelisationCodeNumber             FDD-DL-ChannelisationCodeNumber,
    pICH-Power                                  PICH-Power,
    pICH-Mode                                   PICH-Mode,
    sTTD-Indicator                              STTD-Indicator,
    iE-Extensions                               ProtocolExtensionContainer { { PICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

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

PRACH-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    scramblingCodeNumber                    ScramblingCodeNumber,
    tFCS                                        TFCS,
    preambleSignatures                          PreambleSignatures,
    allowedSlotFormatInformation                AllowedSlotFormatInformationList-CTCH-SetupRqstFDD,
    rACH-SubChannelNumbers                      RACH-SubChannelNumbers,
    ul-punctureLimit                            PunctureLimit,
    preambleThreshold                           PreambleThreshold,
    rACH-Parameters                             RACH-Parameters-CTCH-SetupRqstFDD,
    aICH-Parameters                             AICH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions                               ProtocolExtensionContainer { { PRACHItem-CTCH-SetupRqstFDD-ExtIEs} }     OPTIONAL,
    ...
}

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

AllowedSlotFormatInformationList-CTCH-SetupRqstFDD ::= SEQUENCE (SIZE (1.. maxNrOfSlotFormatsPRACH)) OF AllowedSlotFormatInformationItem-CTCH-
SetupRqstFDD

AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    rACHSlotFormat                              RACH-SlotFormat,
```

```
    iE-Extensions                           ProtocolExtensionContainer  { { AllowedSlotFormatInformationItem-CTCH-SetupRqstFDD-ExtIEs} }
    OPTIONAL,
    ...
}

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

RACH-Parameters-CTCH-SetupRqstFDD ::= ProtocolIE-Single-Container {{ RACH-ParametersIE-CTCH-SetupRqstFDD }}

RACH-ParametersIE-CTCH-SetupRqstFDD NBAP-PROTOCOL-IES ::= {
    { ID id-RACH-ParametersItem-CTCH-SetupRqstFDD   CRITICALITY reject  TYPE RACH-ParametersItem-CTCH-SetupRqstFDD  PRESENCE mandatory }
}

RACH-ParametersItem-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID                CommonTransportChannelID,
    transportFormatSet                      TransportFormatSet,
    iE-Extensions                           ProtocolExtensionContainer  { { RACH-ParametersItem-CTCH-SetupRqstFDD-ExtIEs} }   OPTIONAL,
    ...
 }

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

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

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

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

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

CPCH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonTransportChannelID        CommonTransportChannelID,
    transportFormatSet              TransportFormatSet,
```

```
    aPPreambleScramblingCode        CPCHScramblingCodeNumber,
    cDPreambleScramblingCode        CPCHScramblingCodeNumber,
    tFCS                            TFCS,
    cDSignatures                    PreambleSignatures          OPTIONAL,
    cDSubChannelNumbers             CDSubChannelNumbers         OPTIONAL,
    punctureLimit                   PunctureLimit,
    cPCH-UL-DPCCH-SlotFormat        CPCH-UL-DPCCH-SlotFormat,
    uL-SIR                          UL-SIR,
    initialDL-transmissionPower     DL-Power,
    maximumDLPower                  DL-Power,
    minimumDLPower                  DL-Power,
    pO2-ForTPC-Bits                 PowerOffset,
    pO3-ForPilotBits                PowerOffset,
    fDD-TPC-DownlinkStepSize        FDD-TPC-DownlinkStepSize,
    nStartMessage                   NStartMessage,
    nEOT                            NEOT,
    channel-Assignment-Indication   Channel-Assignment-Indication,
    cPCH-Allowed-Total-Rate         CPCH-Allowed-Total-Rate,
    pCPCHChannelInfomation          PCPCHChannelInformationList-CTCH-SetupRqstFDD,
    vCAMMapping-Information         VCAMMapping-InformationList-CTCH-SetupRqstFDD       OPTIONAL,
    -- this IE shall be present if the Channel Assignment Indication is set to “CA Active” --
    aP-AICH-Parameters              AP-AICH-Parameters-CTCH-SetupRqstFDD,
    cDCA-ICH-Parameters             CDCA-ICH-Parameters-CTCH-SetupRqstFDD,
    iE-Extensions                   ProtocolExtensionContainer  { { CPCH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }       OPTIONAL,
    ...
}

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

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

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

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

UCSM-Information-CTCH-SetupRqstFDD ::= SEQUENCE {
    minUL-ChannelisationCodeLength      MinUL-ChannelisationCodeLength,
    nFmax                               NFmax,
    channelRequestParameters            ChannelRequestParametersList-CTCH-SetupRqstFDD      OPTIONAL,
```

```
    iE-Extensions                       ProtocolExtensionContainer  { { UCSM-InformationItem-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
 }

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

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

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

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

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

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

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

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

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

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

AP-AICH-Parameters-CTCH-SetupRqstFDD ::= SEQUENCE {
    commonPhysicalChannelID                     CommonPhysicalChannelID,
    fdd-dl-ChannelisationCodeNumber             FDD-DL-ChannelisationCodeNumber,
    aP-AICH-Power                               AICH-Power,
```

```
    cSICH-Power                                 AICH-Power,
    sTTD-Indicator                              STTD-Indicator,
    iE-Extensions                               ProtocolExtensionContainer  { { AP-AICH-Parameters-CTCH-SetupRqstFDD-ExtIEs} }    OPTIONAL,
    ...
}

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

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

CDCA-ICH-Parameters-CTCH-SetupRqstFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

UNCHANGED TEXT IS OMITTED

**3GPP TSG-RAN3 Meeting #25** ***R3-013590***
**Makuhari, Japan, 26-30 November 2001**

*CR-Form-v4*

# CHANGE REQUEST

⌘ **25.433** **CR** **581** ⌘ ev **-** ⌘ Current version: **3.7.0** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☒ Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Correction of S field length |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | 27-11-2001 |
| ***Category:*** | ⌘ | **F** |
| ***Release:*** | ⌘ | R99 |

*Use one of the following categories:*
***F*** *(correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(addition of feature),*
***C*** *(functional modification of feature)*
***D*** *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*

| | |
|---|---|
| *2* | *(GSM Phase 2)* |
| *R96* | *(Release 1996)* |
| *R97* | *(Release 1997)* |
| *R98* | *(Release 1998)* |
| *R99* | *(Release 1999)* |
| *REL-4* | *(Release 4)* |
| *REL-5* | *(Release 5)* |

***Reason for change:*** ⌘

In TS25.433, §9.1.36.1 "FDD Message" for Radio Link Setup Request, the conditional IE "S Field Length" in "UL DPCH Information" IE references to §9.2.2.40 in the same TS.
The IE "S Field Length" is conditional and will exist when IE "UL DPCCH Slot Format" indicates a slot format with one or two FBI bits, which is the case when IE "UL DPCCH Slot Format" bears a value of 2 or higher (see Table 2 in TS25.211, §5.2.1).

Now, §5.2.1 in TS25.211 indicates: " The S field is used for SSDT signalling, while the D field is used for closed loop mode transmit diversity signalling. The S field consists of 0, 1 or 2 bits."
The same section also contains the sentence: " When NFBI is 2bits, S field is 0bit and D field is 1bit, left side field shall be filled with "1" and right side field shall be D field."
Then how does NBAP signal an NFBI equal to 2 bits with a zero-bit S field, which is a valid constellation, since in TS25.433, §9.2.2.40 the "S Field Length" IE type is indicated as "ENUMERATED (1,2,...)".
At the origin, the intention was to always fill the 2 FBI bits by the S and D fields. But it was recently agreed in RAN WG1 to leave the possibility not to fill the FBI bits in order to allow keeping the same slot format while changing the options like activating SSDT or not.

***Summary of change:*** ⌘

The "S Field Length" IE in RL Setup message is changed from conditional to optional.
This also aligns NBAP to RNSAP where S Field Length IE is already optional in the Radio Link Setup message.
A procedural text is added in the RL Setup section in order to specify the conditions for using S-Field Length IE

Impact Analysis:
This CR has an isolated impact with the previous version of the specification (same release) since it allows to signal a valid combination that is not possible

| | | |
|---|---|---|
| | | with the previous version of the specification. There is no impact to others specifications. |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, it would not be possible for NBAP to signal the case where NFBI equal to 2 bits with a zero-bit S field, which is a valid combination. |

| | | | | | |
|---|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | 8.2.17, 9.1.36.1 | | | |
| ***Other specs affected:*** | ⌘ | X | Other core specifications | ⌘ | 25.433 v4.2.1 CR582 |
| | | | Test specifications | | |
| | | | O&M Specifications | | |
| ***Other comments:*** | ⌘ | | | | |

## 8.2.17 Radio Link Setup

### 8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B.

[FDD – The RL Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of one or more DSCHs on one radio link.]

[TDD – The RL Setup procedure is used for establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

### 8.2.17.2 Successful Operation

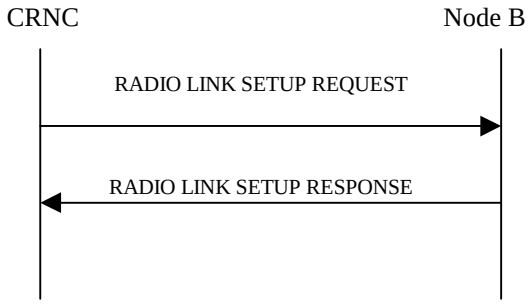


**Figure 24: Radio Link Setup procedure, Successful Operation**

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

Upon reception of RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

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

**Transport Channels Handling:**

**DCH(s):**

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

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

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

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

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

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

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

The received *Frame Handling Priority* IE specified for each Transport Channel should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new RL(s) has been activated.

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

[FDD – In the RADIO LINK SETUP RESPONSE message the Node B shall indicate with the *Diversity Indication* IE whether the RL is combined or not. In case of combining, only the *Reference RL ID* IE shall be included to indicate one of the existing RLs that the concerned RL is combined with. In case of not combining the Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

[TDD – The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

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

**DSCH(s):**

If the *DSCH Information* IE is present, the Node B shall configure the new DSCH(s) according to the parameters given in the message.

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

The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DSCH of this RL.

**[TDD – USCH(s)]:**

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

[TDD – In case the *USCH Information* IE is present, the Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each USCH of this RL.]

**Physical Channels Handling:**

**[FDD - Compressed Mode]:**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

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

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

- [FDD - If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD - If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]

- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

**[FDD - DL Code Information]:**

[FDD – When more than one DL DPDCH is 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*".]

**General:**

[FDD – If the *Propagation Delay* IE is included, the Node B may use this information to speed up the detection of L1 synchronisation.]

[FDD – The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control.]

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

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

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

**Radio Link Handling:**

**[FDD - Transmit Diversity]:**

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

**DL Power Control:**

[FDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH of the RL until either UL synchronisation on the Uu is achieved for the RLS or a DL POWER CONTROL REQUEST message is received. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see

ref.[10], subclause 5.2.1.2) with DPC MODE=0 and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.]

[TDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH of the RL until the UL synchronisation on the Uu is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3), but shall always be kept within the maximum and minimum limit specified in the RL SETUP REQUEST message.]

[TDD – If the *DL Time Slot ISCP Info* IE is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

[FDD – If the received *Inner Loop DL PC Status* IE is set to "Active", the Node B shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLs according to ref. [10].]

**General:**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity* IE and the *S-Field Length* IE, the Node B shall activate SSDT, if supported, using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE.]

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

**[FDD - Radio Link Set Handling]:**

[FDD – The *First RLS Indicator* IE indicates if the concerning RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the Node B together with the value of the *DL TPC pattern 01 count* IE which the Node B has received in the Cell Setup procedure, to determine the initial TPC pattern in the DL of the concerning RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

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

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

[FDD –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].

**Response Message:**

If the RLs are successfully established, the Node B shall start reception on the new RL(s) and respond with a RADIO LINK SETUP RESPONSE message.

After sending of the RADIO LINK SETUP RESPONSE message the Node B shall continuously attempt to obtain UL synchronisation on the Uu and start reception on the new RL. [FDD – The Node B shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [16].] [TDD – The Node B shall start

### 8.2.17.3 Unsuccessful Operation

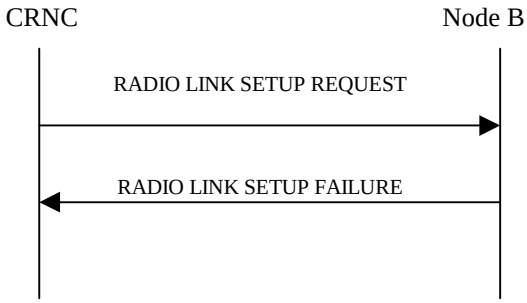


**Figure 25: Radio Link Setup procedure: Unsuccessful Operation**

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK SETUP FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD – If some radio links were established successfully, the Node B shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.]

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the Node B shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message.

Typical cause values are as follows:

**Radio Network Layer Cause**

- RL Already Activated/allocated
- Combining not supported
- Combining Resources not available
- Requested Tx Diversity Mode not supported
- Invalid CM Settings
- Number of DL codes not supported
- Number of UL codes not supported
- UL SF not supported
- DL SF not supported
- Dedicated Transport Channel Type not supported
- Downlink Shared Channel Type not supported
- Uplink Shared Channel Type not supported
- CM not supported

**Transport Layer Cause**

- Transport Resources Unavailable

**Protocol Cause**

- Semantic error

**Miscellaneous Cause**

- O&M Intervention

- Control processing overload
- HW failure

### 8.2.17.4 Abnormal Conditions

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

*Next change*

## 9.1.36 RADIO LINK SETUP REQUEST

### 9.1.36.1 FDD message

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCC C" shall not be used. | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| **UL DPCH Information** | | 1 | | | YES | reject |
| >UL Scrambling Code | M | | 9.2.2.59 | | – | |
| >Min UL Channelisation Code length | M | | 9.2.2.22 | | – | |
| >Max Number of UL DPDCHs | C – CodeLen | | 9.2.2.21 | | – | |
| >puncture Limit | M | | 9.2.1.50 | For UL | – | |
| >TFCS | M | | 9.2.1.58 | for UL | – | |
| >UL DPCCH Slot Format | M | | 9.2.2.57 | | – | |
| > UL SIR Target | M | | UL SIR 9.2.2.58 | | – | |
| >Diversity mode | M | | 9.2.2.9 | | – | |
| >SSDT cell ID Length | O | | 9.2.2.45 | | – | |
| >S Field Length | ~~C-FBI~~O | | 9.2.2.40 | | – | |
| **DL DPCH Information** | | 1 | | | YES | reject |
| >TFCS | M | | 9.2.1.58 | For DL | – | |
| >DL DPCH Slot Format | M | | 9.2.2.10 | | – | |
| >TFCI signalling mode | M | | 9.2.2.50 | | – | |
| >TFCI presence | C-SlotFormat | | 9.2.1.57 | | – | |
| >Multiplexing Position | M | | 9.2.2.23 | | – | |
| >PDSCH RL ID | C-DSCH | | RL ID 9.2.1.53 | | – | |
| >PDSCH code mapping | C-DSCH | | 9.2.2.25 | | – | |
| **>Power Offset Information** | | 1 | | | – | |
| >>PO1 | M | | Power Offset 9.2.2.29 | Power offset for the TFCI bits | – | |
| >>PO2 | M | | Power Offset 9.2.2.29 | Power offset for the TPC bits | – | |
| >>PO3 | M | | Power Offset 9.2.2.29 | Power offset for the pilot bits | – | |
| >FDD TPC DL Step Size | M | | 9.2.2.16 | | – | |
| >Limited Power Increase | M | | 9.2.2.18A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.18B | | – | |
| DCH Information | M | | DCH FDD Information 9.2.2.4D | | YES | reject |
| DSCH Information | O | | DSCH FDD Information 9.2.2.13B | | YES | reject |
| **TFCI2 bearer information** | | 0..1 | | | YES | ignore |

| | | | | | | |
|---|---|---|---|---|---|---|
| >ToAWS | M | | 9.2.1.61 | | - | |
| >ToAWE | M | | 9.2.1.60 | | - | |
| **RL Information** | | 1 to <maxnoof RLs> | | | EACH | notify |
| >RL ID | M | | 9.2.1.53 | | – | |
| >C-ID | M | | 9.2.1.9 | | – | |
| >First RLS Indicator | M | | 9.2.2.16A | | – | |
| >Frame Offset | M | | 9.2.1.31 | | – | |
| >Chip Offset | M | | 9.2.2.2 | | – | |
| >Propagation Delay | O | | 9.2.2.35 | | – | |
| >Diversity Control Field | C – NotFirstRL | | 9.2.1.25 | | – | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | – | |
| >Initial DL transmission Power | M | | DL Power 9.2.1.21 | Initial power on DPCH | – | |
| >Maximum DL power | M | | DL Power 9.2.1.21 | Maximum allowed power on DPCH | – | |
| >Minimum DL power | M | | DL Power 9.2.1.21 | Minimum allowed power on DPCH | – | |
| >SSDT Cell Identity | O | | 9.2.2.44 | | – | |
| >Transmit Diversity Indicator | C – Diversity mode | | 9.2.2.53 | | – | |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.53A | | YES | reject |
| Active Pattern Sequence Information | O | | 9.2.2.A | | YES | reject |

| Condition | Explanation |
|---|---|
| CodeLen | The IE shall be present if *Min UL Channelisation Code Length* IE equals to 4. |
| ~~FBI~~ | ~~The IE shall be present if the *UL DPCCH Slot Format* IE indicates a slot format with 1 or 2 FBI bits (see ref.[7]).~~ |
| NotFirstRL | The IE shall be present if the RL is not the first one in the *RL Information* IE. |
| DSCH | The IE shall be present if the *DSCH Information* IE is present. |
| SlotFormat | This IE is only present if the DL DPCH slot format is equal to any of the value 12 to 16. |
| Diversity mode | The IE shall be present if *Diversity Mode* IE in *UL DPCH Information* IE is not set to “none”. |

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

**3GPP TSG-RAN3 Meeting #25** ***R3-013591***
**Makuhari, Japan, 26-30 November 2001**

CR-Form-v4

# CHANGE REQUEST

⌘ **25.433** **CR** **582** ⌘ ev **-** ⌘ Current version: **4.2.1** ⌘

*For **HELP** on using this form, see bottom of this page or look at the pop-up text over the ⌘ symbols.*

***Proposed change affects:*** ⌘ (U)SIM ☐ ME/UE ☐ Radio Access Network ☒ Core Network ☐

| | | |
|---|---|---|
| ***Title:*** | ⌘ | Correction of S field length |
| ***Source:*** | ⌘ | R-WG3 |
| ***Work item code:*** | ⌘ | TEI |
| ***Date:*** | ⌘ | 27-11-2001 |
| ***Category:*** | ⌘ | **A** |
| ***Release:*** | ⌘ | R4 |

*Use one of the following categories:*
***F*** *(correction)*
***A*** *(corresponds to a correction in an earlier release)*
***B*** *(addition of feature),*
***C*** *(functional modification of feature)*
***D*** *(editorial modification)*
Detailed explanations of the above categories can be found in 3GPP TR 21.900.

*Use one of the following releases:*
*2* *(GSM Phase 2)*
*R96* *(Release 1996)*
*R97* *(Release 1997)*
*R98* *(Release 1998)*
*R99* *(Release 1999)*
*REL-4* *(Release 4)*
*REL-5* *(Release 5)*

***Reason for change:*** ⌘

In TS25.433, §9.1.36.1 "FDD Message" for Radio Link Setup Request, the conditional IE "S Field Length" in "UL DPCH Information" IE references to §9.2.2.40 in the same TS.
The IE "S Field Length" is conditional and will exist when IE "UL DPCCH Slot Format" indicates a slot format with one or two FBI bits, which is the case when IE "UL DPCCH Slot Format" bears a value of 2 or higher (see Table 2 in TS25.211, §5.2.1).

Now, §5.2.1 in TS25.211 indicates: " The S field is used for SSDT signalling, while the D field is used for closed loop mode transmit diversity signalling. The S field consists of 0, 1 or 2 bits."
The same section also contains the sentence: " When NFBI is 2bits, S field is 0bit and D field is 1bit, left side field shall be filled with "1" and right side field shall be D field."
Then how does NBAP signal an NFBI equal to 2 bits with a zero-bit S field, which is a valid constellation, since in TS25.433, §9.2.2.40 the "S Field Length" IE type is indicated as "ENUMERATED (1,2,...)".
At the origin, the intention was to always fill the 2 FBI bits by the S and D fields. But it was recently agreed in RAN WG1 to leave the possibility not to fill the FBI bits in order to allow keeping the same slot format while changing the options like activating SSDT or not.

***Summary of change:*** ⌘

The "S Field Length" IE in RL Setup message is changed from conditional to optional. This also aligns NBAP to RNSAP where S Field Length IE is already optional in the Radio Link Setup message.
A procedural text is added in the RL Setup section in order to specify the conditions for using S-Field Length IE.

Impact Analysis:
This CR has an isolated impact with the previous version of the specification (same release) since it allows to signal a valid combination that is not possible with the previous version of the specification. There is no impact to others

| | | |
|---|---|---|
| | | specifications. |
| ***Consequences if not approved:*** | ⌘ | If this CR is not approved, it would not be possible for NBAP to signal the case where NFBI equal to 2 bits with a zero-bit S field, which is a valid combination. |

| | | | | | |
|---|---|---|---|---|---|
| ***Clauses affected:*** | ⌘ | 8.2.17, 9.1.36.1 | | | |
| ***Other specs affected:*** | ⌘ | **X** | Other core specifications | ⌘ | 25.433 v3.7.0 CR581 |
| | | | Test specifications | | |
| | | | O&M Specifications | | |
| ***Other comments:*** | ⌘ | | | | |

## 8.2.17 Radio Link Setup

### 8.2.17.1 General

This procedure is used for establishing the necessary resources for a new Node B Communication Context in the Node B.

[FDD – The RL Setup procedure is used to establish one or more radio links. The procedure establishes one or more DCHs on all radio links, and in addition, it can include the establishment of one or more DSCHs on one radio link.]

[TDD – The RL Setup procedure is used for establish one radio link including one or more transport channels. The transport channels can be a mixture of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

### 8.2.17.2 Successful Operation

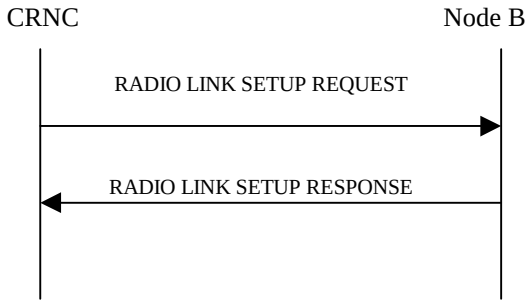


**Figure 24: Radio Link Setup procedure, Successful Operation**

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

Upon reception of RADIO LINK SETUP REQUEST message, the Node B shall reserve necessary resources and configure the new Radio Link(s) according to the parameters given in the message.

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

**Transport Channels Handling:**

**DCH(s):**

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

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

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

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

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

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

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

The received *Frame Handling Priority* IE specified for each Transport Channel should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new RL(s) has been activated.

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

[FDD – In the RADIO LINK SETUP RESPONSE message the Node B shall indicate with the *Diversity Indication* IE whether the RL is combined or not. In case of combining, only the *Reference RL ID* IE shall be included to indicate one of the existing RLs that the concerned RL is combined with. In case of not combining the Node B shall include in the RL SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

[TDD – The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DCH of this RL.]

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

**DSCH(s):**

If the *DSCH Information* IE is present, the Node B shall configure the new DSCH(s) according to the parameters given in the message.

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

The Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each DSCH of this RL.

**[TDD – USCH(s)]:**

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

[TDD – In case the *USCH Information* IE is present, the Node B shall include in the RADIO LINK SETUP RESPONSE the *Binding ID* IE and *Transport Layer Address* IE for the transport bearer to be established for each USCH of this RL.]

**Physical Channels Handling:**

**[FDD – Compressed Mode]:**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.]

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

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

- [FDD - If any received *TGCFN* IE has the same value as the received *CM Configuration Change CFN* IE, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - If any received *TGCFN* IE does not have the same value as the received *CM Configuration Change CFN* IE but the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE has already passed, the DRNS shall consider the concerning Transmission Gap Pattern Sequence as activated at that CFN.]
- [FDD - For all other Transmission Gap Pattern Sequences included in the *Active Pattern Sequence Information* IE, the DRNS shall activate each Transmission Gap Pattern Sequence at the first CFN after the CM Configuration Change CFN with a value equal to the *TGCFN* IE for the Transmission Gap Pattern Sequence.]

**[FDD – DL Code Information]:**

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

**General:**

[FDD – If the *Propagation Delay* IE is included, the Node B may use this information to speed up the detection of L1 synchronisation.]

[FDD – The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control.]

[1.28Mcps TDD – The *UL SIR Target* IE included in the message shall be used by the Node B as initial UL SIR target for the UL inner loop power control according [19] and [21].]

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

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

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

**Radio Link Handling:**

**[FDD – Transmit Diversity]:**

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

**DL Power Control:**

[FDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH of the RL until either UL synchronisation on the Uu is achieved for the RLS or a DL POWER CONTROL REQUEST message is received. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message. During compressed mode, the $P_{SIR}(k)$ , as described in ref.[10] subclause 5.2.1.3, shall be added to the maximum DL power in slot k.]

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the Node B shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during the life time of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]]

[TDD – The Node B shall start the DL transmission using the initial DL power specified in the message on each DL DPCH and on each Time Slot of the RL until the UL synchronisation on the Uu is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3), but shall always be kept within the maximum and minimum limit specified in the RL SETUP REQUEST message.]

[TDD – If the [3.84Mcps TDD - *DL Time Slot ISCPInfo* IE] or [1.28Mcps TDD - *DL Timeslot ISCP LCR* IE] is present, the Node B shall use the indicated value when deciding the initial DL TX Power for each timeslot as specified in [21], i.e. it shall reduce the DL TX power in those downlink timeslots of the radio link where the interference is low, and increase the DL TX power in those timeslots where the interference is high, while keeping the total downlink power in the radio link unchanged].

[FDD – If the received *Inner Loop DL PC Status* IE is set to "Active", the Node B shall activate the inner loop DL power control for all RLs. If *Inner Loop DL PC Status* IE is set to "Inactive", the Node B shall deactivate the inner loop DL power control for all RLs according to ref. [10]]

**General:**

[FDD – If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity* IE and the *S-Field Length* IE, the Node B shall activate SSDT, if supported, using the *SSDT Cell Identity* IE and *SSDT Cell Identity Length* IE.]

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

[FDD - If the RADIO LINK SETUP REQUEST message includes the *SSDT Cell Identity for EDSCHPC* IE, the Node B shall activate enhanced DSCH power control, if supported, using the *SSDT Cell Identity for EDSCHPC* IE and *SSDT Cell Identity Length* IE as well as *Enhanced DSCH PC* IE in accordance with ref. [10] subclause 5.2.2. If the RADIO LINK SETUP REQUEST message includes both *SSDT Cell Identity* IE and *SSDT Cell Identity for EDSCHPC* IE, then the Node B shall ignore the value in *SSDT Cell Identity for EDSCHPC* IE]

**[FDD – Radio Link Set Handling]:**

[FDD – The *First RLS Indicator* IE indicates if the concerning RL shall be considered part of the first RLS established towards this UE. The *First RLS Indicator* IE shall be used by the Node B together with the value of the *DL TPC pattern 01 count* IE which the Node B has received in the Cell Setup procedure, to determine the initial TPC pattern in the DL of the concerning RL and all RLs which are part of the same RLS, as described in [10], section 5.1.2.2.1.2.]

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

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

[FDD – 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]

**Response Message:**

If the RLs are successfully established, the Node B shall start reception on the new RL(s) and respond with a RADIO LINK SETUP RESPONSE message.

After sending of the RADIO LINK SETUP RESPONSE message the Node B shall continuously attempt to obtain UL synchronisation on the Uu and start reception on the new RL. [FDD – The Node B shall start transmission on the new RL after synchronisation is achieved in the DL user plane as specified in [16].] [TDD – The Node B shall start transmission on the new RL immediately as specified in [16].]

### 8.2.17.3 Unsuccessful Operation

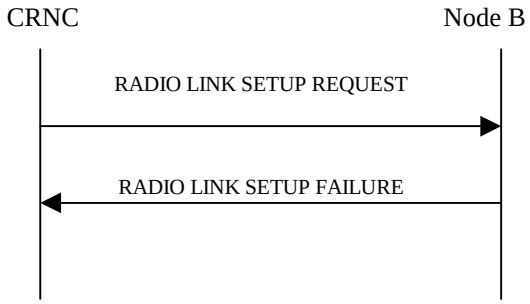


**Figure 25: Radio Link Setup procedure: Unsuccessful Operation**

If the establishment of at least one radio link is unsuccessful, the Node B shall respond with a RADIO LINK SETUP FAILURE message. The message contains the failure cause in the *Cause* IE.

[FDD – If some radio links were established successfully, the Node B shall indicate this in the RADIO LINK SETUP FAILURE message in the same way as in the RADIO LINK SETUP RESPONSE message.]

Typical cause values are as follows:

**Radio Network Layer Cause**

- Combining not supported
- Combining Resources not available
- Requested Tx Diversity Mode not supported
- Number of DL codes not supported
- Number of UL codes not supported
- UL SF not supported
- DL SF not supported
- Dedicated Transport Channel Type not supported
- Downlink Shared Channel Type not supported
- Uplink Shared Channel Type not supported
- CM not supported
- DPC mode change not supported

**Transport Layer Cause**

- Transport Resources Unavailable

**Miscellaneous Cause**

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

### 8.2.17.4 Abnormal Conditions

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

If more than one DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected" [TDD – or no DCH of a set of co-ordinated DCHs has the *QE-Selector* IE set to "selected"] the Node B shall regard the Radio Link Setup procedure as failed and shall respond with a RADIO LINK SETUP FAILURE message.

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

*Next change*

# 9.1.36 RADIO LINK SETUP REQUEST

## 9.1.36.1 FDD message

| IE/Group Name | Presence | Range | IE type and reference | Semantics description | Criticality | Assigned Criticality |
|---|---|---|---|---|---|---|
| Message Discriminator | M | | 9.2.1.45 | | – | |
| Message Type | M | | 9.2.1.46 | | YES | reject |
| CRNC Communication Context ID | M | | 9.2.1.18 | The reserved value "All CRNCC C" shall not be used. | YES | reject |
| Transaction ID | M | | 9.2.1.62 | | – | |
| **UL DPCH Information** | | 1 | | | YES | reject |
| >UL Scrambling Code | M | | 9.2.2.59 | | – | |
| >Min UL Channelisation Code length | M | | 9.2.2.22 | | – | |
| >Max Number of UL DPDCHs | C – CodeLen | | 9.2.2.21 | | – | |
| >puncture Limit | M | | 9.2.1.50 | For UL | – | |
| >TFCS | M | | 9.2.1.58 | for UL | – | |
| >UL DPCCH Slot Format | M | | 9.2.2.57 | | – | |
| > UL SIR Target | M | | UL SIR 9.2.1.67A | | – | |
| >Diversity mode | M | | 9.2.2.9 | | – | |
| >SSDT cell ID Length | O | | 9.2.2.45 | | – | |
| >S Field Length | ~~C-FBI~~O | | 9.2.2.40 | | – | |
| >DPC mode | O | | 9.2.2.13C | | YES | reject |
| **DL DPCH Information** | | 1 | | | YES | reject |
| >TFCS | M | | 9.2.1.58 | For DL | – | |
| >DL DPCH Slot Format | M | | 9.2.2.10 | | – | |
| >TFCI signalling mode | M | | 9.2.2.50 | | – | |
| >TFCI presence | C-SlotFormat | | 9.2.1.57 | | – | |
| >Multiplexing Position | M | | 9.2.2.23 | | – | |
| >PDSCH RL ID | C-DSCH | | RL ID 9.2.1.53 | | – | |
| >PDSCH code mapping | C-DSCH | | 9.2.2.25 | | – | |
| **>Power Offset Information** | | 1 | | | – | |
| >>PO1 | M | | Power Offset 9.2.2.29 | Power offset for the TFCI bits | – | |
| >>PO2 | M | | Power Offset 9.2.2.29 | Power offset for the TPC bits | – | |
| >>PO3 | M | | Power Offset 9.2.2.29 | Power offset for the pilot bits | – | |
| >FDD TPC DL Step Size | M | | 9.2.2.16 | | – | |
| >Limited Power Increase | M | | 9.2.2.18A | | – | |
| >Inner Loop DL PC Status | M | | 9.2.2.18B | | – | |
| DCH Information | M | | DCH FDD Information 9.2.2.4D | | YES | reject |
| DSCH Information | O | | DSCH FDD Information 9.2.2.13B | | YES | reject |

| | | | | | | |
|---|---|---|---|---|---|---|
| **TFCI2 bearer information** | | 0..1 | | | YES | ignore |
| >ToAWS | M | | 9.2.1.61 | | - | |
| >ToAWE | M | | 9.2.1.60 | | - | |
| **RL Information** | | 1 to <maxnoof RLs> | | | EACH | notify |
| >RL ID | M | | 9.2.1.53 | | – | |
| >C-ID | M | | 9.2.1.9 | | – | |
| >First RLS Indicator | M | | 9.2.2.16A | | – | |
| >Frame Offset | M | | 9.2.1.31 | | – | |
| >Chip Offset | M | | 9.2.2.2 | | – | |
| >Propagation Delay | O | | 9.2.2.35 | | – | |
| >Diversity Control Field | C – NotFirstRL | | 9.2.1.25 | | – | |
| >DL Code Information | M | | FDD DL Code Information 9.2.2.14A | | – | |
| >Initial DL transmission Power | M | | DL Power 9.2.1.21 | Initial power on DPCH | – | |
| >Maximum DL power | M | | DL Power 9.2.1.21 | Maximum allowed power on DPCH | – | |
| >Minimum DL power | M | | DL Power 9.2.1.21 | Minimum allowed power on DPCH | – | |
| >SSDT Cell Identity | O | | 9.2.2.44 | | – | |
| >Transmit Diversity Indicator | C – Diversity mode | | 9.2.2.53 | | – | |
| >SSDT Cell Identity for EDSCHPC | C-EDSCHPC | | 9.2.2.44A | | YES | ignore |
| Transmission Gap Pattern Sequence Information | O | | 9.2.2.53A | | YES | reject |
| Active Pattern Sequence Information | O | | 9.2.2.A | | YES | reject |
| DSCH Common Information | O | | DSCH FDD Common Information 9.2.2.13D | | YES | ignore |

| Condition | Explanation |
|---|---|
| CodeLen | The IE shall be present if *Min UL Channelisation Code Length* IE equals to 4. |
| ~~FBI~~ | ~~The IE shall be present if the *UL DPCCH Slot Format* IE indicates a slot format with 1 or 2 FBI bits (see ref.[7]).~~ |
| NotFirstRL | The IE shall be present if the RL is not the first one in the *RL Information* IE. |
| DSCH | The IE shall be present if the *DSCH Information* IE is present. |
| SlotFormat | The IE shall be present if the *DL DPCH Slot Format* IE is equal to any of the values from 12 to 16. |
| Diversity mode | The IE shall be present if *Diversity Mode* IE in *UL DPCH Information* IE is not set to “none”. |
| EDSCHPC | The IE shall be present if *Enhanced DSCH PC* IE is present in the *DSCH Common Information* IE. |

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