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

TSGRP#10(00)0629

Title: **Agreed CRs to TS 25.433**

Source: **TSG-RAN WG3**

Agenda item: **5.3.3**

Tdoc_Num	Specification	CR_Num	Revision_Nu	CR_Subject	CR_Categor	WG_Status	Cur_Ver_Nu	New_Ver_Nu
R3-003204	25.433	300	1	Transport bearer establishment	F	agreed	3.3.0	3.4.0
R3-003247	25.433	301	1	Clarification of the Handling of Common and Dedicated	F	agreed	3.3.0	3.4.0
R3-003238	25.433	302	1	Segmentation of AUDIT RESPONSE	F	agreed	3.3.0	3.4.0
R3-003248	25.433	303	1	Modification of System Information Update procedure	F	agreed	3.3.0	3.4.0
R3-003015	25.433	304		TFCI2 transmit power	F	agreed	3.3.0	3.4.0
R3-003269	25.433	305	2	DCH information in TDD messages	F	agreed	3.3.0	3.4.0
R3-003173	25.433	307	1	Relation between UL and DL CCTrCH for TPC	F	agreed	3.3.0	3.4.0
R3-003275	25.433	308	2	Variability of SF in UL Physical Channel for TDD	F	agreed	3.3.0	3.4.0
R3-003064	25.433	309		Resource Status Indication corrections for TDD	F	agreed	3.3.0	3.4.0
R3-003271	25.433	312	2	Extensibility correction for FACH Information Response:	F	agreed	3.3.0	3.4.0
R3-003095	25.433	313		Refinement for extension tools in ASN.1	F	agreed	3.3.0	3.4.0
R3-003254	25.433	314	1	Correction on CPCH	F	agreed	3.3.0	3.4.0

R3-003177	25.433	316	1	Minor changes to NBAP	F	agreed	3.3.0	3.4.0
R3-003138	25.433	318		Clarification of Assignments of ASN.1 Constants	F	agreed	3.3.0	3.4.0
R3-003227	25.433	320	1	Round trip time (UTRAN) for NBAP	F	agreed	3.3.0	3.4.0
R3-003182	25.433	321		Dated References to RAN WG4 specs	F	agreed	3.3.0	3.4.0
R3-003184	25.433	322		Introduction of extension of ddMode	F	agreed	3.3.0	3.4.0
R3-003220	25.433	323	1	Extensibility Correction for DCH Information Response	F	agreed	3.3.0	3.4.0

3GPP TSG-RAN3 Meeting #17
Chicago, USA, 20th – 24th November 2000

Tdoc R3-003204

CR-Form-v3

CHANGE REQUEST

⌘ **25.433** **CR** **300** ⌘ rev **1** ⌘ Current version: **3.3.0** ⌘

*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 establishment
Source:	⌘	R-WG3
Work item code:	⌘	***Date:*** ⌘ November 2000
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)

R-WG3

Reason for change:	⌘	Proper actions are not specified in the sequence when new transport resources are not successfully established in synchronised RL reconfiguration
Summary of change:	⌘	This CR specifies the case when Node B shall perform RL Reconfiguration after RL Reconfiguration Commit message but new transport resources have not been established. Node B shall in that case send RL Failure Indication message to CRNC. R1: linking is added and some rephrasing is performed.
Consequences if not approved:	⌘	If this error case is not defined there might be interoperability problems between Node B and RNC.

Clauses affected:	⌘	8.3.3.3, 8.3.12.2		
Other specs affected:	⌘	[X] Other core specifications [ ] Test specifications [ ] O&M Specifications	⌘	CR 246/25.423
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.

8.3.3.2 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 RL Reconfiguration procedure at the CFN requested by the CRNC when receiving the RADIO LINK RECONFIGURATION COMMIT message from the CRNC. [FDD – The CFN shall be ignored by Node B if only Transmission Gap Pattern Sequence Information was included in the RL Reconfiguration.] When this procedure has been completed the Prepared Reconfiguration does not exist any more, see chapter 3.1.

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

8.3.3.3 Abnormal Conditions

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.

8.3.12.2 Successful Operation

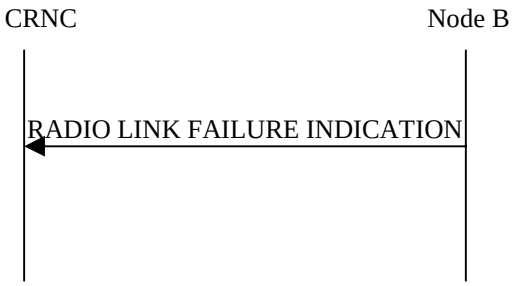

Figure 43: Radio Link Failure procedure: Successful Operation

When Node B detects that one or more Radio Link or Radio Link Sets is no longer available, it sends the RADIO LINK FAILURE INDICATION message to CRNC indicating the failed Radio Links or Radio Link Sets with the most appropriate cause values in the *Cause* IE. If the failure concerns one or more individual Radio Links the Node B shall indicate the affected Radio Link(s) using the *RL Information* IE group. [FDD - If the failure concerns one or more Radio Link Sets the Node B shall indicate the affected Radio Link Set(s) using the *RL Set Information* IE group.]

In the other cases Radio Link Failure procedure is used to indicate that one or more Radio Links/Radio Link Sets are permanently unavailable and cannot be restored. After sending the RADIO LINK FAILURE INDICATION message to notify the permanent failure, the Node B shall not remove the Radio Link/Radio Link Set from the UE context, or the UE context itself. When applicable, the retention priorities associated to the transport channels shall be used by the Node B to prioritise which Radio Links/Radio Link Sets to indicate as unavailable to the CRNC.

When the Radio Link Failure procedure is used to notify the loss of UL synchronisation, the message shall be sent, with the cause value 'Synchronisation Failure', when indicated by the UL out-of-sync algorithm defined in [10] and [21]. [FDD – The algorithm in [10] shall use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

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

Typical cause values are:

Radio Network Layer Causes:

- Synchronisation Failure

Transport Layer Causes:

- Transport Resources Unavailable

Miscellaneous Causes:

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

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Chicago, USA, 20-24 Nov. 2000

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

CHANGE REQUEST

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25.433	CR	301r1	Current Version:	3.3.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN#10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

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

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

Source: R-WG3 **Date:** 2000-11-20

Subject: Clarification of the Handling of Common and Dedicated Resources in the cases of Cell Deletion and Cell Disable

Work item:

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

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change: The Node B behaviour is not specified with regards to the handling of common and dedicated channels, for the cases that the cell is disabled and when Cell Deletion is received and common and/or dedicated channels still exist in the cell.

Consequence if not approved: The Node B behaviour is not fully specified for the above case, which means that the inter-work with a CRNC cannot be guaranteed.

Clauses affected: 8.2.14 and 8.2.15

Other specs affected:

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

Other comments:

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<--------- double-click here for help and instructions on how to create a CR.

8.2.14 Cell Deletion

8.2.14.1 General

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

8.2.14.2 Successful Operation

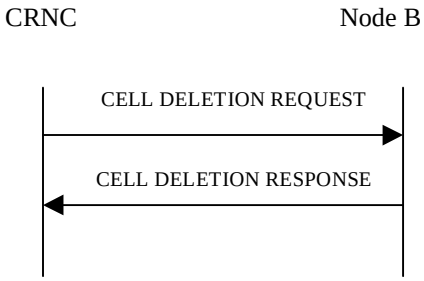

Figure 11: Cell Deletion procedure: Successful Operation

The procedure is initiated with a CELL DELETION REQUEST message sent from CRNC to Node B. Upon Reception, the Node B shall remove the cell and any remaining common and dedicated channels within the cell ~~cell created by the Cell Setup procedure or Common Transport Channel Setup procedure~~. The states for the cell and the deleted common channels shall be set to Not Existing [6]. The Node B shall remove all Radio Links from the Cell and all Node B Communication Contexts that as a result do not have a Radio Link. The Node B shall also initiate release of the user plane transport bearers for the removed common and dedicated channels.

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

8.2.14.3 Unsuccessful Operation

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8.2.14.4 Abnormal Conditions

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

8.2.15 Resource Status Indication

8.2.15.1 General

This procedure is used in the following cases:

1. When a Local Cell becomes Existing at the Node B, it shall be made available to the RNC
2. When a Local Cell is to be deleted in Node B, i.e. become Not Existing, the Local Cell shall be withdrawn from the CRNC
3. When the capabilities of the Local Cell change at the Node B
4. When a cell has changed its capability and/or its resource operational state at Node B
5. When common physical channels and/or common transport channels have changed their capabilities at a Node B
6. When a communication control port changed its resource operational state at the Node B
7. When a Node B has changed its resource capability at the Node B and/or the local cells

Each of the above cases shall trigger a Resource Status Indication procedure and the RESOURCE STATUS INDICATION message shall contain the logical resources affected for that case and the cause value when applicable.

8.2.15.2 Successful Operation

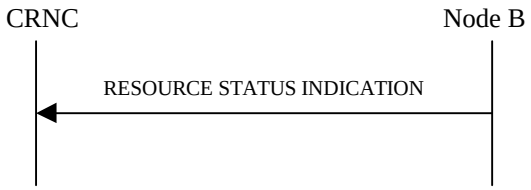

Figure 21: Resource Status Indication procedure: Successful Operation

The procedure is initiated with a RESOURCE STATUS INDICATION message sent from the Node B to CRNC.

When a Local Cell becomes Existing at the Node B, the Node B shall make it available to the CRNC by sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to “No Failure”, the Local Cell Id IE and the Add/Delete Indicator IE set equal to 'Add'. If the RESOURCE STATUS INDICATION message contains both the "DL or Global Capacity Credit" and the "UL Capacity Credit" then the internal resource capabilities of the Local Cell are modelled independently in the Uplink and Downlink direction. If the "UL Capacity Credit" IE is not present, then the internal resource capabilities of the Local Cell are modelled as shared resources between Uplink and Downlink. The new resulting Node B capability shall be indicated within the NodeB Information IE group. If the RESOURCE STATUS INDICATION message contains both the "DL or Global Capacity Credit" and the "UL Capacity Credit" then the internal resource capabilities of the Node B are modelled independently in the Uplink and Downlink direction. If the "UL Capacity Credit" IE is not present, then the internal resource capabilities of the Node B are modelled as shared resources between Uplink and Downlink.

When a Local Cell is to be deleted in Node B, i.e. become Not Existing, the Node B shall withdraw the Local Cell from the CRNC by sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to “No Failure”, the Local Cell Id IE and the Add/Delete Indicator IE set equal to 'Delete'. The new resulting Node B capability shall be indicated within the NodeB Information IE group. If the RESOURCE STATUS INDICATION message contains both the "DL or Global Capacity Credit" and the "UL Capacity Credit" then the internal resource capabilities of the Node B are modelled independently in the Uplink and Downlink direction. If the "UL Capacity Credit" IE is not present, then the internal resource capabilities of the Node B are modelled as shared resources between Uplink and Downlink. The Node B shall not withdraw a previously configured cell at the Node B that the CRNC had configured using the Cell Setup procedure, until the CRNC has deleted that cell at the Node B using the Cell Delete procedure.

When the capabilities of a Local Cell changes at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to “Service Impacting” and the Local Cell Id. The Node B shall include the *Minimum DL Power Capability* IE when it is known by the Node B. If the

DL power capability has changed, the new capability shall be indicated in the *DL Power Capability* IE. If the DL capability for supporting the minimun spreading factor has changed, the new capability shall be indicated in the *Minimum Spreading Factor* IE. The Cause IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value. If the internal resource capabilities of the Local Cell are affected, it shall be reported in the following way: If the internal resource capabilities of the Local Cell are modelled as shared resources between Uplink and Downlink, the new capacity shall be reported in the DL or Global Capacity Credit IE. If the internal resource capabilities of the Local Cell are modelled independently in the Uplink and Downlink direction, then the DL or Global Capacity Credit IE and the UL Capacity Credit IE shall be present in the RESOURCE STATUS INDICATION. If the maximum DL power capability of the Local Cell is affected, this shall be reported using the Maximum DL Power Capability IE.

When the capabilities and/or resource operational state of a cell changes at the Node B, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to “Service Impacting”, the C-ID IE, the *Resource Operational State* IE and the *Availability Status* IE. The Cause IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.
The Node B shall not delete any common or dedicated channels, due to the cell being "Disabled". For all affected common and dedicated channels, the Node B shall report the impact to the CRNC with the relevant procedures.

When the capabilities and/or resource operational state of common physical channels and/or common transport channels have changed, the Node B shall report the new capability and/or resource operational state by sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to “Service Impacting”, the *Resource Operational State* IE and the *Availability Status* IE set to appropriate values for the affected channel(s). The Cause IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value.

When the resource operational state of a communication control port has changed, the Node B shall report the new resource operational state by sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to “Service Impacting” and the Communication Control Port ID IE. The Cause IE in the RESOURCE STATUS INDICAION message shall be set to the appropriate value.

When the resource capabilities of a Node B change at the Node B, the Node B shall report the new capability by sending a RESOURCE STATUS INDICATION message with the *Indication Type* IE set equal to “Service Impacting” and the NodeB Information IE group. The Cause IE in the RESOURCE STATUS INDICATION message shall be set to the appropriate value. If the RESOURCE STATUS INDICATION message contains both the "DL or Global Capacity Credit" and the "UL Capacity Credit" then the internal resource capabilities of the Node B are modelled independently in the Uplink and Downlink direction. If the "UL Capacity Credit" IE is not present, then the internal resource capabilities of the Node B are modelled as shared resources between Uplink and Downlink.

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

8.2.15.3 Abnormal Conditions

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TSG-RAN Working Group 3 Meeting #17
Chicago, USA, 20th-24th November 2000

Document R3-003238
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.433	CR	302r1	Current Version:	3.3.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG RAN #10	For approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

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

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

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

Subject: Segmentation of AUDIT RESPONSE information

Work item:

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

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

Already during R3#14, Ericsson had a contribution (Tdoc 1809) proposing the segmentation of the AUDIT RESPONSE message. At that point, it was decided to have a more general discussion and see if there were other messages with a large length.

During the last 3 meetings, it has become more and more clear that the long AUDIT RESPONSE message is a problem: this both in relation to lower transport layer capabilities as well as the delay that such a message would cause for other messages. The Ericsson contribution already showed that without adaptations to the AUDIT RESPONSE message, given the limitations of the current transport layer, assuming complex cells a Node B could not support more that some 14 cells.

This contribution proposes to segment the information currently in one AUDIT RESPONSE message by splitting it over multiple Class 1 procedures. These audit procedures are grouped in a so called “audit sequence”.

The AUDIT REQUEST includes a *Start Of AuditSequence Indicator* IE indicating if the request is a first request of an audit sequence or if the request asks the Node-B to supply further information in addition to already provided information.

The Node B shall indicate in the *End Of AuditSequence Indicator* IE in the AUDIT RESPONSE message if more configuration information is present or if this message completes the configuration information.

If this contribution is not accepted, severe limitations will exits w.r.t the amount of cells a Node-B can support.

R1:

- rephrasing in the procedure text is performed to clarify that there is only one audit sequence at a time and that when a new sequence is requested to start, any ongoing audit sequence shall be aborted;

- behaviour is specified for the case in which no audit sequence is ongoing and a Node B receives and Audit Request not indicating a start;

- Audit Failure is introduced in order to accomplish the goal above described.

Clauses affected: 8.1; 8.2.7; 9.1.16; 9.1.17; 9.1.x (new); 9.2.1.x (new); 9.2.1.x (new); 9.3.2; 9.3.3; 9.3.4; 9.3.6

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

Other comments:

8.1 Elementary Procedures

NBAP procedures are divided into common procedures and dedicated procedures.

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

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

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

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

Table 1: Class 1

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

Table 2: Class 2

Elementary Procedure	Message
Resource Status Indication	RESOURCE STATUS INDICATION
Audit Required	AUDIT REQUIRED INDICATION
Common Measurement Reporting	COMMON MEASUREMENT REPORT
Common Measurement Termination	COMMON MEASUREMENT TERMINATION REQUEST
Common Measurement Failure	COMMON MEASUREMENT FAILURE INDICATION
Synchronised Radio Link Reconfiguration Commit	RADIO LINK RECONFIGURATION COMMIT
Synchronised Radio Link Reconfiguration Cancellation	RADIO LINK RECONFIGURATION CANCELLATION
Radio Link Failure	RADIO LINK FAILURE INDICATION
Radio Link Restoration	RADIO LINK RESTORE INDICATION
Dedicated Measurement Reporting	DEDICATED MEASUREMENT REPORT
Dedicated Measurement Termination	DEDICATED MEASUREMENT TERMINATION REQUEST
Dedicated Measurement Failure	DEDICATED MEASUREMENT FAILURE INDICATION
Downlink Power Control [FDD]	DL POWER CONTROL REQUEST
Compressed Mode Control Command	COMPRESSED MODE COMMAND
Unblock Resource	UNBLOCK RESOURCE INDICATION
Error Indication	ERROR INDICATION

8.2.7 Audit

8.2.7.1 General

This procedure is executed by the CRNC to perform an audit of the configuration and status of the logical resources in the Node B. A complete audit of a Node B is performed by one or more Audit procedures, together perfoming an audit sequence. The audit may cause the CRNC to re-sync the Node B to the status of logical resources known by the CRNC, that the Node B can support.

8.2.7.2 Successful Operation

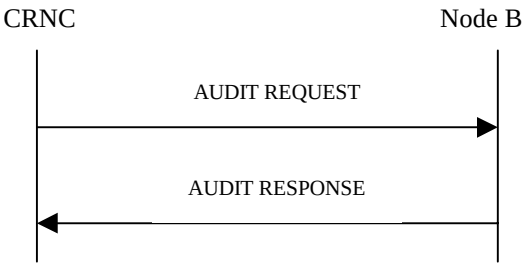

Figure 10: Audit procedure, Successful Operation

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

If the *Start of Audit Sequence* IE in the AUDIT REQUEST message is set to "start of audit sequence" a new audit sequence is started, any ongoing audit sequence shall be aborted and the Node B shall provide (part of the) audit information. If the *Start of Audit Sequence* IE is set to "not start of audit sequence", the Node B shall provide (part of) the remaining audit information not already provided during this audit sequence.

If the information provided in the AUDIT RESPONSE message completes the audit sequence, the Node B shall set the *End Of AuditSequence Indicator* IE in the AUDIT RESPONSE message to "End of Audit Sequence". If not all audit information has been provided yet as part of the ongoing audit sequence, the Node B shall set the *End Of AuditSequence Indicator* IE in the AUDIT RESPONSE message to "Not End of Audit Sequence".

Information Provided In One Audit Sequence.
~~If a *Configuration Generation ID* IE for a cell can not be trusted, the Node B shall set this *Configuration Generation ID* IE = '0'.~~

The Node B shall include ~~in the AUDIT RESPONSE message a~~one *Local Cell Information* IE group for each local cell present in the Node B. The Node B shall include the *Maximum DL Power Capability* IE and the *Minimum DL Power Capability* IE when any of those values are known by the Node B.

The Node B shall include the Node B internal resource capability and consumption laws in one ~~with the "NodeB Information~~ *NodeB Information* IE group.~~"~~. If the "UL Capacity Credit" IE is not present, then the internal resource capabilities of the Node B are modelled as shared resources between Uplink and Downlink.

The Node B shall include for each local cell present in the node B the Node B internal resource capability and consumption laws within the " Local Cell Information IE group". If the "UL Capacity Credit" IE is not present, then the internal resource capabilities of the local cell are modelled as shared resources between Uplink and Downlink.

The Node B shall include ~~in the AUDIT RESPONSE message a~~one *Cell Information* IE group for each cell in the Node B and information about all common transport channels and all common physical channels for each cell. If a *Configuration Generation ID* IE for a cell can not be trusted, the Node B shall set this *Configuration Generation ID* IE = '0'.

The Node B shall also include ~~in the AUDIT RESPONSE message, a~~one *Communication Control Port Information* IE group for each communication control port in the Node B.

8.2.7.3 Unsuccessful Operation

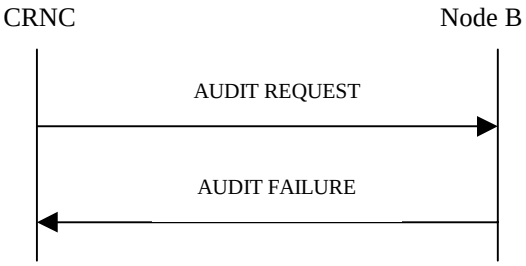

Figure X: Audit procedure, Unsuccessful Operation

If the Node B receives the AUDIT REQUEST message with the *Start of Audit Sequence* IE set to "not start of audit sequence" and there is no ongoing audit sequence, the Node B shall send the AUDIT FAILURE message with the appropriate cause value.

Typical cause values for the AUDIT FAILURE message are:

Protocol Causes:

- Message not Compatible with Receiver State

8.2.7.4 Abnormal Conditions

-

9.1.16 AUDIT REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Start Of Audit Sequence Indicator	M		9.2.1.x		YES	reject

9.1.17 AUDIT RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
End Of Audit Sequence Indicator	M		9.2.1.x		YES	ignore
Node B Information		*0..1*			YES	ignore
>DL or Global Capacity Credit	M		9.2.2.12			
>UL Capacity Credit	O		9.2.2.60			
>Common Channels Capacity Consumption Law	M		9.2.2.3			
>Dedicated Channels Capacity Consumption Law	M		9.2.2.6			
Cell Information		*0.. <* maxCellinNodeB >			EACH	ignore
>C-ID	M		9.2.1.9		–	
>Configuration Generation ID	M		9.2.1.16			
>Resource Operational State	M		9.2.1.52		–	
>Availability Status	M		9.2.1.2		–	
>Local Cell ID	M		9.2.1.38	The local cell that the cell is configured on		
>Primary SCH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary SCH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Primary CPICH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary CPICH Information		*0..<maxSCPICHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Primary CCPCH Information		*0..1*			YES	ignore

>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>BCH Information		*0..1*			YES	ignore
>>Common Transport Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary CCPCH Information		*0..<maxSCCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PCH Information		*0..1*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PICH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>FACH Information		*0..<maxFACHCell>*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PRACH Information		*0..<maxPRACHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>RACH Information		*0..<maxRACHCell>*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>**AICH Information**		*0..<maxRACHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PCPCH Information		*0..<maxPCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource	M		9.2.1.52		–	

Operational State						
>>Availability Status	M		9.2.1.2		–	
>CPCH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>AP-AICH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.14			
>>Resource Operational State	M		9.2.1.52			
>>Availability Status	M		9.2.1.2			
>CD/CA-ICH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.14			
>>Resource Operational State	M		9.2.1.52			
>>Availability Status	M		9.2.1.2			
>**SCH Information**		0..1			YES	ignore
>>Common Physical Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
Communication Control Port Information		*0..<maxCCPinNodeB>*			EACH	ignore
>Communication Control Port ID	M		9.2.1.15		–	
>Resource Operational State	M		9.2.1.52		–	
>Availability Status	M		9.2.1.2		–	
Local Cell Information		*0..<maxLocalCellinNodeB>*			EACH	ignore
>Local Cell ID	M		9.2.1.38		–	
>DL or Global Capacity Credit	M		9.2.2.12			
>UL Capacity Credit	O		9.2.2.60			
>Common Channels Capacity Consumption Law	M		9.2.2.3			
>Dedicated Channels Capacity Consumption Law	M		9.2.2.6			
>Maximum DL Power Capability	O		9.2.1.39		–	
>Minimum Spreading Factor	O		9.2.1.47			
>Minimum DL Power Capability	O		9.2.1.46A		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxCellinNodeB	Maximum number of Cell that can be configured in Node B
MaxCCPinNodeB	Maximum number of communication control ports that can exist in the Node B
MaxCPCHCell	Maximum number of CPCHes that can be defined in a Cell
MaxLocalCellinNodeB	Maximum number of Local Cells that can exist in the Node B
MaxPCPCHCell	Maximum number of PCPCHes that can be defined in a Cell
MaxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.
MaxSCCPCHCell	Maximum number of Secondary CCPCH that can be defined in a Cell.
MaxFACHCell	Maximum number of FACHes that can be defined in a Cell

9.1.X AUDIT FAILURE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Cause	M		9.2.1.6		YES	ignore
Criticality diagnostics	O		9.2.1.17		YES	ignore

9.2.1.x End Of Audit Sequence Indicator

Indicates if the AUDIT RESPONSE message ends an audit sequence or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
End Of Audit Sequence Indicator			ENUMERATED(end of audit sequence, not end of audit sequence)	End of audit sequence = all audit information has been provided by the Node B; Not end of audit sequence = more audit information is available;

9.2.1.x Start Of Audit Sequence Indicator

Indicates if the AUDIT REQUEST message initiates a new audit sequence or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Start Of Audit Sequence Indicator			ENUMERATED(start of audit sequence, not start of audit sequence)	

9.3.2 Elementary Procedure Definitions

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

IMPORTS
    Criticality,
    ProcedureID,
    MessageDiscriminator,
    TransactionID
FROM NBAP-CommonDataTypes

    CommonTransportChannelSetupRequestFDD,
    CommonTransportChannelSetupRequestTDD,
    CommonTransportChannelSetupResponse,
    CommonTransportChannelSetupFailure,
    CommonTransportChannelReconfigurationRequestFDD,
    CommonTransportChannelReconfigurationRequestTDD,
    CommonTransportChannelReconfigurationResponse,
    CommonTransportChannelReconfigurationFailure,
    CommonTransportChannelDeletionRequest,
    CommonTransportChannelDeletionResponse,
    BlockResourceRequest,
    BlockResourceResponse,
    BlockResourceFailure,
    UnblockResourceIndication,
    AuditFailure,
    AuditRequiredIndication,
    AuditRequest,
    AuditResponse,
    CommonMeasurementInitiationRequest,
    CommonMeasurementInitiationResponse,
    CommonMeasurementInitiationFailure,
    CommonMeasurementReport,
```

*****some parts of the module have been removed*****

```
-- *** CommonTransportChannelReconfigure (FDD) ***
commonTransportChannelReconfigureFDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelReconfigurationRequestFDD
    SUCCESSFUL OUTCOME      CommonTransportChannelReconfigurationResponse
    UNSUCCESSFUL OUTCOME    CommonTransportChannelReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelReconfigure, ddMode fdd }
    CRITICALITY             reject
}

-- *** CommonTransportChannelReconfigure (TDD) ***
commonTransportChannelReconfigureTDD NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelReconfigurationRequestTDD
    SUCCESSFUL OUTCOME      CommonTransportChannelReconfigurationResponse
    UNSUCCESSFUL OUTCOME    CommonTransportChannelReconfigurationFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelReconfigure, ddMode tdd }
    CRITICALITY             reject
}

-- *** CommonTransportChannelDelete ***
commonTransportChannelDelete NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      CommonTransportChannelDeletionRequest
    SUCCESSFUL OUTCOME      CommonTransportChannelDeletionResponse
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-commonTransportChannelDelete, ddMode common }
    CRITICALITY             reject
}

-- *** Audit ***
audit NBAP-ELEMENTARY-PROCEDURE ::= {
    INITIATING MESSAGE      AuditRequest
    SUCCESSFUL OUTCOME      AuditResponse
    UNSUCCESSFUL OUTCOME    AuditFailure
    MESSAGE DISCRIMINATOR   common
    PROCEDURE ID            { procedureCode id-audit, ddMode common }
    CRITICALITY             reject
}
```

9.3.3 PDU Definitions

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

// partly ommitted

    DL-TPC-Pattern01Count,
    DPCH-ID,
    DSCH-ID,
    End-Of-Audit-Sequence-Indicator,
    FDD-DL-ChannelisationCodeNumber,
    FDD-S-CCPCH-Offset,
    FDD-TPC-DownlinkStepSize,

// partly ommitted

    SSDT-CellID-Length,
    SSDT-Indication,
    Start-Of-Audit-Sequence-Indicator,
    STTD-Indicator,
    SSDT-SupportIndicator,

// partly ommitted

    id-DSCH-ModifyItem-RL-ReconfPrepFDD,
    id-DSCH-ModifyItem-RL-ReconfRqstFDD,
    id-DSCH-ModifyList-RL-ReconfPrepFDD,
    id-End-Of-Audit-Sequence-Indicator,
    id-FACH-InformationItem-AuditRsp,
    id-FACH-InformationItem-ResourceStatusInd,
    id-FACHItem-CTCH-SetupRsp,

// partly ommitted

    id-SFN,
    id-ShutdownTimer,
    id-Start-Of-Audit-Sequence-Indicator,
    id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD,

// partly ommitted
```

```
-- **************************************************************
--
-- AUDIT FAILURE
--
-- **************************************************************

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

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

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



-- **************************************************************
--
-- AUDIT REQUEST
--
-- **************************************************************

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

AuditRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-Start-Of-Audit-Sequence-Indicator        CRITICALITY     reject  TYPE Start-Of-Audit-Sequence-Indicator    PRESENCE  mandatory },
    ...
}

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

-- **************************************************************
--
-- AUDIT RESPONSE
--
-- **************************************************************
```

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

AuditResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-End-Of-Audit-Sequence-Indicator          CRITICALITY     ignore  TYPE    End-Of-Audit-Sequence-Indicator     PRESENCE mandatory }|
    { ID    id-NodeBInformation-AuditRep                CRITICALITY     ignore  TYPE    NodeBInformation-AuditRsp        PRESENCE optional mandatory}|
    { ID    id-Cell-InformationList-AuditRsp            CRITICALITY     ignore  TYPE    Cell-InformationList-AuditRsp    PRESENCE optional }|
    { ID    id-CCP-InformationList-AuditRsp             CRITICALITY     ignore  TYPE    CCP-InformationList-AuditRsp        PRESENCE optional }|
    -- CCP (Communication Control Port) --
    { ID    id-Local-Cell-InformationList-AuditRsp      CRITICALITY     ignore  TYPE    Local-Cell-InformationList-AuditRsp    PRESENCE optional }|
    { ID    id-CriticalityDiagnostics                   CRITICALITY     ignore  TYPE    CriticalityDiagnostics              PRESENCE optional },
    ...
}


// partly ommitted
```

```
-- ========================================
--  E
-- ========================================

End-Of-Audit-Sequence-Indicator ::= ENUMERATED {
    end-of-audit-sequence,
    not-end-of-audit-sequence
}
```

```
-- ========================================
--  S
-- ========================================

// partly ommitted

SSDT-Indication ::= ENUMERATED {
    ssdt-active-in-the-UE,
    ssdt-not-active-in-the-UE
}

Start-Of-Audit-Sequence-Indicator ::= ENUMERATED {
    start-of-audit-sequence,
    not-start-of-audit-sequence
}

STTD-Indicator ::= ENUMERATED {
    active,
    inactive,
    ...
}

// partly ommitted
```

9.3.6 Constant Definitions

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

// partly ommitted

id-DSCH-InformationList-RL-SetupRqstTDD                          INTEGER ::= 107
id-DSCH-ModifyItem-RL-ReconfPrepFDD                              INTEGER ::= 108
id-DSCH-ModifyItem-RL-ReconfRqstFDD                              INTEGER ::= 109
id-DSCH-ModifyList-RL-ReconfPrepFDD                              INTEGER ::= 112
id-End-Of-Audit-Sequence-Indicator                               INTEGER ::= 113
id-FACH-InformationItem-AuditRsp                                 INTEGER ::= 116
id-FACH-InformationItem-ResourceStatusInd                        INTEGER ::= 117

// partly ommitted

id-ServiceImpactingItem-ResourceStatusInd                        INTEGER ::= 267
id-SFN                                                           INTEGER ::= 268
id-ShutdownTimer                                                 INTEGER ::= 269
id-Start-Of-Audit-Sequence-Indicator                             INTEGER ::= 114
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD       INTEGER ::= 270
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD          INTEGER ::= 271
id-Successful-RL-InformationRespList-RL-AdditionFailureFDD       INTEGER ::= 272

// partly ommitted
```

3GPP TSG-RA WG3 Meeting #17
Chicago, USA, 20th-24th Nov 2000

Document R3-003248
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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

25.433	CR	303r1	Current Version:	3.3.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	RAN#10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

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

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

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

Subject: Modification of System Information Update procedure

Work item:

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

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

Release:

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

Reason for change:

The RRC specification was modified regarding the System Information structure, introducing two new Scheduling Blocks and removing the scheduling from the SIBs. This CRs alignes 25.433 with this modification.

Consequences if the CR is not approved: 25.433 will not reflect the change in RRC and will result in a misalignment.

R1: clarification to a condition in the tabular format is also added in the ASN.1 and some Ies are now correctly indicated in *Italic*.

Clauses affected: 3.3, 8.2.16, 9.1.33, 9.2.1.35, 9.3.3, 9.3.4, 9.3.6

Other specs affected:

Other 3G core specifications	X	→ List of CRs:	CR 596 to TS 25.331
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

3.3 Abbreviations

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

ASN.1	Abstract Syntax Notation One
ATM	Asynchronous Transfer Mode
BCCH	Broadcast Control Channel
CCPCH	Common Control Physical Channel
CFN	Connection Frame Number
CM	Compressed Mode
CPCH	Common Packet Channel
CRNC	Controlling Radio Network Controller
DCH	Dedicated Channel
DL	Downlink
DPCCH	Dedicated Physical Control Channel
DPCH	Dedicated Physical Channel
DPDCH	Dedicated Physical Data Channel
DSCH	Downlink Shared Channel
FDD	Frequency Division Duplex
FP	Frame Protocol
L1	Layer 1
L2	Layer 2
MIB	Master Information Block
NBAP	Node B Application Part
O&M	Operation and Management
PCPCH	Physical Common Packet Channel
PDSCH	Physical Downlink Shared Channel
PUSCH	Physical Uplink Shared Channel
RL	Radio Link
RLS	Radio Link Set
RNC	Radio Network Controller
RRC	Radio Resource Control
SB	Scheduling Block
SIB	System Information Block
SRNC	Serving Radio Network Controller
TDD	Time Division Duplex
TFC	Transport Format Combination
TFCI	Transport Format Combination Indicator
TFCS	Transport Format Combination Set
TFS	Transport Format Set
TPC	Transmit Power Control
UE	User Equipment
UL	Uplink
USCH	Uplink Shared Channel
UTRAN	UMTS Terrestrial Radio Access Network

8.2.16 System Information Update

8.2.16.1 General

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

8.2.16.2 Successful Operation

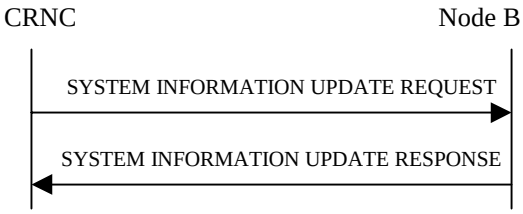

Figure 22: System Information Update procedure: Successful Operation

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

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

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

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

The Node B shall determine the correct cell system frame number(s) (SFN) for transmission of the segments of system information, from the scheduling parameters provided in the SYSTEM INFORMATION UPDATE REQUEST message. The SFN for transmitting the segments shall be determined by the *SIB SG REP* IE and *SIB SG POS* IE such that:

- SFN mod IB_SG_REP = IB_SG_POS

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

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

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

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

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

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

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

8.2.16.3 Unsuccessful Operation

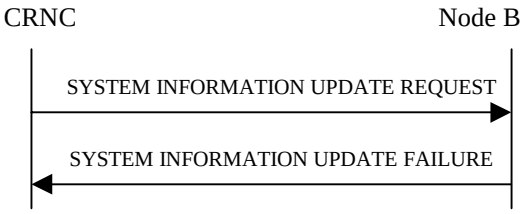

Figure 23: System Information Update procedure: Unsuccessful Operation

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

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

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

- after having handled a certain ~~MIB/SIB information~~ *MIB/SB/SIB information* IE group repetition, an illegal BCCH schedule results;
- if a MIB/SB/SIB information IE group repetition includes an *IB SG REP* IE or an *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID which is not requested to be deleted from the BCCH schedule by an IB deletion indicated in a ~~MIB/SIB information~~ *MIB/SB/SIB information* IE group repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated;
- if a MIB/SB/SIB information IE group repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is no IB in the BCCH schedule with the same IB Type and IB OC ID;
- if a MIB/SB/SIB information IE group repetition includes no *IB SG REP* IE and *IB SG POS* IE and there is already an IB in the BCCH schedule with the same IB Type and IB OC ID but it is requested to be deleted from the BCCH schedule by an IB deletion indicated in a ~~MIB/SIB information~~ *MIB/SB/SIB information* IE group repetition present in the SYSTEM INFORMATION UPDATE REQUEST message before the IB addition is indicated;

Possible cause values are:

Radio Network Layer Cause

- Insufficient physical channel resources
- Unknown C-ID
- SIB Origination in Node B not Supported
- BCCH scheduling error

Miscellaneous Cause

- Hardware failure
- Control Processing overload
- O&M Intervention
- Unspecified

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

9.1.33 SYSTEM INFORMATION UPDATE REQUEST

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
BCCH Modification Time	O		9.2.1.3		YES	reject
MIB/SB/SIBInformation		*1.. maxIB*			GLOBAL	reject
>IB Type	M		9.2.1.35		–	
>IB OC ID	M		9.2.1.31A	In one message, every occurrence of IB Type can only be deleted once and/or added once.	–	
>CHOICE *IB DeletionIndicator*						
>>*NoDeletion*					YES	reject
>>>SIB Originator	C-NotMIBSIB		9.2.1.55		–	
>>>IB SG REP	O		9.2.1.34		–	
>>>Segment Information		*1.. maxIBSEG*			GLOBAL	reject
>>>>IB SG POS	O		9.2.1.33		–	
>>>>IB SG DATA	C – CRNCOrigination		9.2.1.32		–	
>>*Deletion*			NULL			

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

Condition	Explanation
CRNCOrigination	The IE shall be present if *the SIB Originator* IE is set to 'CRNC' or if the IB Type equals “MIB”, “SB1” or “SB2”.
NotMIBSIB	This IE shall be present if the IB Type is not equal to "MSIB"

9.2.1.35 IB Type

The IB Ttype identifies a specific system information block.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
IB Type			Enumerated (MIB, SB1, SB2, SIB1, SIB2 SIB3, SIB4, SIB5, SIB6, SIB7, SIB8, SIB9, SIB10, SIB11, SIB12, SIB13, SIB13.1 SIB13.2, SIB13.3, SIB13.4, SIB14, SIB15, SIB15.1, SIB15.2, SIB15.3, SIB16, …)	

9.3.3 PDU Definitions

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

IMPORTS
    Active-Pattern-Sequence-Information,
    AddorDeleteIndicator,
    AICH-Power,

******TEXT HAS BEEN OMITTED******

    id-AdjustmentPeriod,
    id-MaxAdjustmentStep,
    id-MaximumTransmissionPower,
    id-MeasurementAvailableItem-CommonMeasurementReport,
    id-MeasurementnotAvailableItem-CommonMeasurementReport,
    id-MeasurementAvailableItem-DedicatedMeasurementReport,
    id-MeasurementnotAvailableItem-DedicatedMeasurementReport,
    id-MeasurementFilterCoefficient,
    id-MeasurementID,
    id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst,
    id-NodeBInformation-AuditRep,
    id-No-DeletionItem-SystemInfoUpdate,
    id-No-FailureItem-ResourceStatusInd,
    id-Non-CombiningItem-RL-AdditionFailureFDD,
    id-Non-CombiningItem-RL-AdditionRspFDD,
    id-Non-CombiningItem-RL-AdditionRspTDD,
    id-NonCombiningOrFirstRLItem-RL-SetupFailureFDD,
    id-NonCombiningOrFirstRLItem-RL-SetupRspFDD,
```

*****TEXT HAS BEEN OMITTED*****

```
-- **************************************************************
--
-- SYSTEM INFORMATION UPDATE REQUEST
--
-- **************************************************************

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

SystemInformationUpdateRequest-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-C-ID                                     CRITICALITY reject      TYPE    C-ID                            PRESENCE mandatory
    }|
    { ID    id-BCCH-ModificationTime                    CRITICALITY reject      TYPE    BCCH-ModificationTime           PRESENCE optional }|
    { ID    id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst      CRITICALITY reject      TYPE  MIB-SB-SIB-InformationList-SystemInfoUpdateRqst
    PRESENCE    mandatory   },
    ...
}

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

MIB-SB-SIB-InformationList-SystemInfoUpdateRqst ::= SEQUENCE (SIZE (1..maxIB)) OF MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst

MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst ::= SEQUENCE {
    iB-Type                         IB-Type,
    iB-OC-ID                        IB-OC-ID,
    deletionIndicator               DeletionIndicator-SystemInfoUpdate,
    iE-Extensions                   ProtocolExtensionContainer { { MIB-SB-SIB-InformationItem-SystemInfoUpdateRqst-ExtIEs} }     OPTIONAL,
    ...
}

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

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

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

No-DeletionIE-SystemInfoUpdate NBAP-PROTOCOL-IES ::= {
    { ID id-No-DeletionItem-SystemInfoUpdate   CRITICALITY reject   TYPE No-DeletionItem-SystemInfoUpdate    PRESENCE mandatory }
}

No-DeletionItem-SystemInfoUpdate ::= SEQUENCE {
    sIB-Originator                          SIB-Originator              OPTIONAL,
    -- This IE shall be present if the IB-Type is not equal to "MSIB"
    iB-SG-REP                               IB-SG-REP                   OPTIONAL,
    segmentInformationList                  SegmentInformationList-SystemInfoUpdate,
    iE-Extensions                           ProtocolExtensionContainer { { No-DeletionItem-SystemInfoUpdate-ExtIEs} }    OPTIONAL,
    ...
}

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

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

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

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

SegmentInformationItem-SystemInfoUpdate ::= SEQUENCE {
    iB-SG-POS                               IB-SG-POS           OPTIONAL,
    iB-SG-DATA                              IB-SG-DATA          OPTIONAL,
    -- This IE shall be present if the SIB Originator IE is set to "CRNC" or the IB-Type is "MIB", "SB1" or "SB2"
    iE-Extensions                           ProtocolExtensionContainer { { SegmentInformationItem-SystemInfoUpdate-ExtIEs} }OPTIONAL,
    ...
}

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

9.3.4 Information Elements Definitions

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

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

DEFINITIONS AUTOMATIC TAGS ::=
BEGIN

IMPORTS
    maxNrOfTFCs,
    maxNrOfErrors,
    maxCTFC,
    maxNrOfTFs,
    maxTTI-count,
    maxRateMatching,
    maxCodeNrComp-1,
    maxNrOfCodeGroups,
    maxNrOfTFCIGroups,
    maxNrOfTFCI1Combs,
    maxNrOfTFCI2Combs,
    maxNrOfTFCI2Combs-1,
    maxNrOfSF,
    maxTGPS
FROM NBAP-Constants

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

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

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

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

Acknowledged-PRACH-preambles-Value ::= INTEGER(0..240,...)
```

```
-- ========================================
--  I
-- ========================================

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

IB-SG-DATA ::= BIT STRING

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

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

IB-Type ::= ENUMERATED {
    mib,
    sb1,
    sb2,
    sib1,
    sib2,
    sIB3,
    sIB4,
    sIB5,
    sIB6,
    sIB7,
    sIB8,
    sIB9,
    sIB10,
    sIB11,
    sib12,
    sIB13,
    sIB13dot1,
    sIB13dot2,
    sIB13dot3,
    sIB13dot4,
    sIB14,
    sIB15,
    sIB15dot1,
    sIB15dot2,
    sIB15dot3,
    sIB16,
    ...
}

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

-- ========================================
--  J
```

9.3.6 Constant Definitions

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- Elementary Procedures
--
-- **************************************************************

id-audit                                            INTEGER ::= 0
id-auditRequired                                    INTEGER ::= 1
id-blockResource                                    INTEGER ::= 2
id-cellDeletion                                     INTEGER ::= 3
id-cellReconfiguration                              INTEGER ::= 4
id-cellSetup                                        INTEGER ::= 5
id-commonMeasurementFailure                         INTEGER ::= 6
id-commonMeasurementInitiation                      INTEGER ::= 7
id-commonMeasurementReport                          INTEGER ::= 8
id-commonMeasurementTermination                     INTEGER ::= 9
id-commonTransportChannelDelete                     INTEGER ::= 10
id-commonTransportChannelReconfigure                INTEGER ::= 11
id-commonTransportChannelSetup                      INTEGER ::= 12
id-compressedModeCommand                            INTEGER ::= 14
id-dedicatedMeasurementFailure                      INTEGER ::= 16
id-dedicatedMeasurementInitiation                   INTEGER ::= 17
id-dedicatedMeasurementReport                       INTEGER ::= 18
id-dedicatedMeasurementTermination                  INTEGER ::= 19
id-downlinkPowerControl                             INTEGER ::= 20
id-errorIndicationForDedicated                      INTEGER ::= 21
id-physicalSharedChannelReconfiguration             INTEGER ::= 37
id-privateMessageForDedicated                       INTEGER ::= 22
id-radioLinkAddition                                INTEGER ::= 23
id-radioLinkDeletion                                INTEGER ::= 24
id-radioLinkFailure                                 INTEGER ::= 25
id-radioLinkRestoration                             INTEGER ::= 26
id-radioLinkSetup                                   INTEGER ::= 27
```

```
id-DSCH-AddItem-RL-ReconfRqstFDD                          INTEGER ::= 88
id-DSCH-AddList-RL-ReconfPrepFDD                          INTEGER ::= 89
id-DSCH-DeleteItem-RL-ReconfPrepFDD                       INTEGER ::= 91
id-DSCH-DeleteItem-RL-ReconfRqstFDD                       INTEGER ::= 92
id-DSCH-DeleteList-RL-ReconfPrepFDD                       INTEGER ::= 93
id-DSCH-ID                                                INTEGER ::= 95
id-DSCH-information-AddList-RL-ReconfPrepTDD              INTEGER ::= 96
id-DSCH-Information-DeleteList-RL-ReconfPrepTDD           INTEGER ::= 98
id-DSCH-Information-ModifyList-RL-ReconfPrepTDD           INTEGER ::= 100
id-DSCH-InformationResponseListIE-RL-AdditionRspTDD       INTEGER ::= 102
id-DSCH-InformationRespListIE-RL-SetupFailureFDD          INTEGER ::= 103
id-DSCH-InformationResponseListIE-RL-SetupRspFDD          INTEGER ::= 104
id-DSCH-InformationResponseListIE-RL-SetupRspTDD          INTEGER ::= 105
id-DSCH-InformationList-RL-SetupRqstFDD                   INTEGER ::= 106
id-DSCH-InformationList-RL-SetupRqstTDD                   INTEGER ::= 107
id-DSCH-ModifyItem-RL-ReconfPrepFDD                       INTEGER ::= 108
id-DSCH-ModifyItem-RL-ReconfRqstFDD                       INTEGER ::= 109
id-DSCH-ModifyList-RL-ReconfPrepFDD                       INTEGER ::= 112
id-FACH-InformationItem-AuditRsp                          INTEGER ::= 116
id-FACH-InformationItem-ResourceStatusInd                 INTEGER ::= 117
id-FACHItem-CTCH-SetupRsp                                 INTEGER ::= 118
id-FACH-ParametersList-CTCH-ReconfRqstTDD                 INTEGER ::= 120
id-FACH-ParametersListIE-CTCH-SetupRqstFDD                INTEGER ::= 121
id-FACH-ParametersListIE-CTCH-SetupRqstTDD                INTEGER ::= 122
id-IndicationType-ResourceStatusInd                       INTEGER ::= 123
id-Local-Cell-ID                                          INTEGER ::= 124
id-Local-Cell-InformationItem-AuditRsp                    INTEGER ::= 125
id-Local-Cell-InformationItem-ResourceStatusInd           INTEGER ::= 126
id-Local-Cell-InformationItem2-ResourceStatusInd          INTEGER ::= 127
id-Local-Cell-InformationList-AuditRsp                    INTEGER ::= 128
id-AdjustmentPeriod                                       INTEGER ::= 129
id-MaxAdjustmentStep                                      INTEGER ::= 130
id-MaximumTransmissionPower                               INTEGER ::= 131
id-MeasurementFilterCoefficient                           INTEGER ::= 132
id-MeasurementID                                          INTEGER ::= 133
id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst        INTEGER ::= 134
id-NodeBInformation-AuditRep                              INTEGER ::= 135
id-No-DeletionItem-SystemInfoUpdate                       INTEGER ::= 136
id-No-FailureItem-ResourceStatusInd                       INTEGER ::= 137
id-Non-CombiningItem-RL-AdditionFailureFDD                INTEGER ::= 138
id-Non-CombiningItem-RL-AdditionRspFDD                    INTEGER ::= 139
id-Non-CombiningItem-RL-AdditionRspTDD                    INTEGER ::= 140
id-NonCombiningOrFirstRLItem-RL-SetupFailureFDD           INTEGER ::= 141
id-NonCombiningOrFirstRLItem-RL-SetupRspFDD               INTEGER ::= 142
id-NodeB-CommunicationContextID                           INTEGER ::= 143
id-P-CCPCH-InformationItem-AuditRsp                       INTEGER ::= 144
id-P-CCPCH-InformationItem-ResourceStatusInd              INTEGER ::= 145
id-P-CPICH-InformationItem-AuditRsp                       INTEGER ::= 146
```

```
id-P-CPICH-InformationItem-ResourceStatusInd                INTEGER ::= 147
id-P-SCH-InformationItem-AuditRsp                           INTEGER ::= 148
```

3GPP TSG-RAN3 Meeting #17
Chicago, USA, 20th – 24th November 2000

Tdoc R3-003015

CR-Form-v3

CHANGE REQUEST

⌘ **25.433** **CR** **304** ⌘ rev **-** ⌘ Current version: **3.3.0** ⌘

*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:	⌘	TFCI2 transmit power
Source:	⌘	R-WG3
Work item code:	⌘	***Date:*** ⌘ November 2000
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)*

R-WG3

Reason for change:	⌘	The zero power condition of TFCI2 field is erroneously defined as zero dbm.
Summary of change:	⌘	Zero dBm is changed to zero power
Consequences if not approved:	⌘	If this error case is not defined there might be interoperability problems with Node B and RNC.

Clauses affected:	⌘	8.2.17.2, 8.3.2.2		
Other specs Affected:	⌘	☐ Other core specifications ☐ 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.

8.2.17.2 Successful Operation

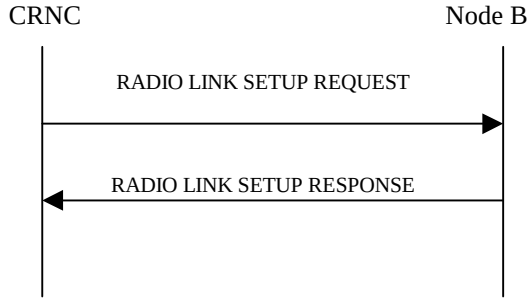

Figure 24: Radio Link Setup procedure: Successful Operation

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.

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

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

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

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

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

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

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

[FDD – When more than one DL DPDCH are assigned per RL, the segmented physical channel shall be mapped on to DL DPDCHs according to [8]. When *p* number of DL DPDCHs are assigned to each RL, the first pair of DL

Scrambling Code and FDD DL Channelisation Code Number corresponds to "*PhCH number 1*", the second to "*PhCH number 2"*, and so on until the *p*th to "*PhCH number p*".]

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

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

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

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

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

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

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

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

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

[FDD - The Node B shall start the DL transmission using the initial DL power specified in the message on each DL channelisation code of the RL until either UL synchronisation is achieved for the RLS or a DL POWER CONTROL REQUEST message is received. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10] , chapter 5.2.1.2) with DPC MODE=0 and the power control procedure (see 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RL SETUP REQUEST message.].

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

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

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

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

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

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

8.3.2 Synchronised Radio Link Reconfiguration Preparation

8.3.2.1 General

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

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

8.3.2.2 Successful Operation

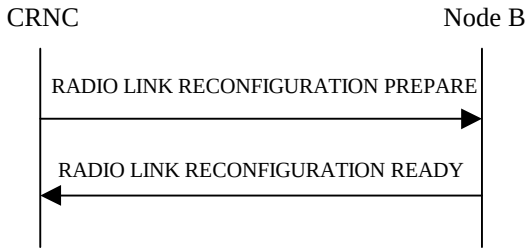

Figure 30: Synchronised Radio Link Reconfiguration procedure, Successful Operation

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

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

DCH Modification:

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

- If the *DCHs to Modify* IE includes the *Retention Priority* IE, the Node B should use this information to prioritise the retention of the resources used by the DCHes in error situation.
- If the *DCHs to Modify* IE includes the *Frame Handling Priority* IE, the Node B should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new configuration has been activated.
- If the *DCHs to Modify* IE includes the *Transport Format Set* IE for the UL of a DCH, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCHs to Modify* IE includes the *Transport Format Set* IE for the DL of a DCH, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCHs to Modify* IE includes multiple *DCH Specific Info* IEs then the Node B shall treat the DCHs in the *DCHs to Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCHs to Modify* IE includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs to Modify* IE includes the *ToAWS* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

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

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

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

DCH Addition:

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

- The Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCHs in the new configuration.

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

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

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

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

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

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

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

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

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

DCH Deletion:

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

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

Physical Channel Modification:

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

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

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

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

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

- [FDD - The Node B shall use the *TFCS* IE for the UL (if present) when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the Uplink of the new configuration.]

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

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

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

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

- [FDD - The Node B shall use the *TFCS* IE for the DL (if it is present) when reserving resources for the downlink of the new configuration. The Node B shall apply the new TFCS in the Downlink of the new configuration.]

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

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

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

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

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

- [FDD - If the *DL DPCH Information* IE includes the *PDSCH code mapping* IE then the Node B shall apply the defined mapping between TFCI values and PDSCH channelisation codes.]

- [FDD - If the *DL DPCH Information* IE includes the *PDSCH RL ID* IE then the Node B shall infer that the PDSCH for the specified user will be transmitted on the defined radio link.]

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

[TDD - UL/DL CCTrCH Modification]

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

- [TDD - If the IE includes any of *TFCS* IE, *TFCI coding* IE or *Puncture limit* IE the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

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

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

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

[TDD – UL/DL CCTrCH Addition]

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

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

[TDD – UL/DL CCTrCH Deletion]

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

DSCH Addition/Modification/Deletion:

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

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

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

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

3GPP TSG-RAN WG3 Meeting #17
Chicago, USA, 20-24 November 2000

Tdoc R3-003269

CR-Form-v3

CHANGE REQUEST

⌘ **25.433** **CR** **305** ⌘ rev **R2** ⌘ Current version: **3.3.0** ⌘

*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:	⌘	DCH information in TDD messages
Source:	⌘	R-WG3
Work item code:	⌘	***Date:*** ⌘ November 2000
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)*

R-WG3

Reason for change:	⌘	When performing RL addition it is possible in TDD to not have any DCH's to add, however the messages do not allow the possibility to exclude DCH information
Summary of change:	⌘	R2 - More editorial corrections in ASN.1 (in yellow). R1 – Cover page repaired, editorial corrections in name DCH-information made in ASN.1 Changes are highlighted in yellow This CR allows DCH information to be optional in TDD messages
Consequences if not approved:	⌘	If this CR was not approved: Certain allowed physical configurations could not be supported in Radio Link Addition.

Clauses affected:	⌘	9.1.40.2, 9.4		
Other specs affected:	⌘	☐ Other core specifications ☐ 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.

9.1.40 RADIO LINK ADDITION RESPONSE

9.1.40.1 FDD message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
RL Information Response		1..*<maxnoofRL-1>*			EACH	ignore
>RL ID	M		9.2.1.53		–	
>RL Set ID	M		9.2.2.9			
>RSSI	M		9.2.2.39A		–	
>Diversity Indication	M		9.2.1.26		–	
>CHOICE *diversity indication*					–	
>>*Combining*					YES	ignore
>>>RL ID	M		9.2.1.53	Reference RL	–	
>>*Non combining*					YES	ignore
>>>DCH Information Response		1..*<maxnoofDCHs>*			–	
>>>>DCH ID	M		9.2.1.20		–	
>>>>Binding ID	M		9.2.1.4		–	
>>>>Transport Layer Address	M		9.2.1.63		–	
>SSDT support indicator	M		9.2.2.46		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs per UE
MaxnoofRL	Maximum number of RLs for one UE

9.1.40.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
RL Information response		1			YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Interference per Time Slot	M	1 .. <*maxnoofULts*>		Interference Level for each UL time slot within the Radio Link		
>>Time Slot	M		9.2.3.23			
>>UL Timeslot ISCP	M		9.2.3.26A		–	
>DCH Information		0..1			–	
>>Diversity Indication	M		9.2.1.26		–	
>>CHOICE *diversity indication*						
>>>*Combining*				In TDD it indicates whether the old Transport Bearer shall be reused or not	YES	ignore
>>>RL ID	M		9.2.1.53	Reference RL	–	
>>>*Non combining*					YES	ignore
>>>DCH Information Response		1~~0~~..<*maxnoofDCHs*>			–	
>>>DCH ID	M		9.2.1.20		–	
>>>Binding ID	M		9.2.1.4		–	
>>>Transport Layer Address	M		9.2.1.63		–	
>DSCH Information Response		0 .. <MaxnoofDSCHs			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH Information Response		0 .. <MaxnoofUSCHs			GLOBAL	ignore
>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs per UE
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUDCHs	Maximum number of USCHs for one UE
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

```
-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE TDD
--
-- **************************************************************

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

RadioLinkAdditionResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                  CRITICALITY ignore          TYPE  CRNC-CommunicationContextID
    PRESENCE    mandatory   }|
    { ID    id-RL-InformationResponse-RL-AdditionRspTDD     CRITICALITY ignore          TYPE  RL-InformationResponse-RL-AdditionRspTDD
    PRESENCE    mandatory   }|
    { ID    id-CriticalityDiagnostics                       CRITICALITY ignore          TYPE  CriticalityDiagnostics                    PRESENCE
    optional    },
    ...
}

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

RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    uL-InterferenceList-RL-AdditionRspTDD   UL-InterferenceList-RL-AdditionRspTDD,
    diversityIndication                     DiversityIndication-RL-AdditionRspTDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    dCH-Information                         DCH-Information-RL-AdditionRspTDD           OPTIONAL,
    dSCH-InformationResponseList                DSCH-InformationResponseList-RL-AdditionRspTDD     OPTIONAL,
    uSCH-InformationResponseList                USCH-InformationResponseList-RL-AdditionRspTDD     OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationResponse-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-InterferenceList-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1.. maxNrOfULTSs)) OF UL-InterferenceItem-RL-AdditionRspTDD

UL-InterferenceItem-RL-AdditionRspTDD ::= SEQUENCE {
    timeSlot                    TimeSlot,
    iSCP                        UL-TimeslotISCP-Value,
    iE-Extensions               ProtocolExtensionContainer { { UL-InterferenceItem-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

UL-InterferenceItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}

DCH-Information-RL-AdditionRspTDD ::= SEQUENCE {
    diversityIndication                 DiversityIndication-RL-AdditionRspTDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    iE-Extensions                       ProtocolExtensionContainer { { DCH-Information-RL-AdditionRspTDD-ExtIEs} } OPTIONAL,
    ...
}

DCH-Information-RL-AdditionRspTDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
    combining                                   Combining-RL-AdditionRspTDD,
    non-Combining                               Non-Combining-RL-AdditionRspTDD,
    ...
}

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

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

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

CombiningItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Non-Combining-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ Non-CombiningIE-RL-AdditionRspTDD }}

Non-CombiningIE-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Non-CombiningItem-RL-AdditionRspTDD   CRITICALITY ignore    TYPE Non-CombiningItem-RL-AdditionRspTDD   PRESENCE mandatory }
}

Non-CombiningItem-RL-AdditionRspTDD ::= SEQUENCE {
    dCH-InformationResponseList                 DCH-InformationResponseList-RL-AdditionRspTDD     OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspTDD-ExtIEs} }      OPTIONAL,
    ...
}

Non-CombiningItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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

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

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

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

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

DSCH-InformationResponseListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem-RL-AdditionRspTDD

DSCH-InformationResponseItem-RL-AdditionRspTDD ::= SEQUENCE {
    dSCH-ID                             DSCH-ID,
    bindingID                           BindingID,
    transportLayerAddress               TransportLayerAddress,
    iE-Extensions                       ProtocolExtensionContainer { { DSCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs} }      OPTIONAL,
    ...
}

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

USCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-AdditionRspTDD }}

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

USCH-InformationResponseListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationResponseItem-RL-AdditionRspTDD

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

USCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
```

```
    ...
}
```

3GPP TSG RAN WG3 Meeting #17
Chicago, IL, US, 20-24 Nov 2000

Document ***R3-003173***
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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

25.433	**CR**	**307r1**	Current Version:	V 3.3.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	RAN #10	for approval	X	strategic		*(for SMG use only)*
list expected approval meeting # here ↑		for information		non-strategic		

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

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

Source:	R-WG3			**Date:**	20 Nov 2000	
Subject:	Relation between UL and DL CCTrCH for TPC					
Work item:						

Category: *(only one category shall be marked with an X)*				**Release:**		
	F	Correction	X		Phase 2	
	A	Corresponds to a correction in an earlier release			Release 96	
	B	Addition of feature			Release 97	
	C	Functional modification of feature			Release 98	
	D	Editorial modification			Release 99	X
					Release 00	

Reason for change:
While it is possible to allocate zero UL CCTrCHs, the reference to UL TPC did assume at least one UL CCTrCH. This CR corrects this mismatch.

Consequences if not accepted:
Inconsistency in the specification

Clauses affected: 9.1.36.2; 9.1.42.2; 9.3.3

Other specs affected:				
	Other 3G core specifications	X	→ List of CRs:	25.423
	Other GSM core specifications		→ List of CRs:	
	MS test specifications		→ List of CRs:	
	BSS test specifications		→ List of CRs:	
	O&M specifications		→ List of CRs:	

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

9.1.36.2 TDD message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	reject
Transaction ID	M		9.2.1.62		–	
UL CCTrCH Information		0 to <maxno CCTrCH>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>UL DPCH Information		0..1			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information		1 .. <maxnoof ULts>			–	
>>>Time Slot	M		92.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>UL Code Information		1 .. <maxnoOf DPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
DL CCTrCH Information		0 to <maxno CCTrCH>			EACH	notify
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>TDD TPC DL Step Size	M		9.2.3.21			
>TPC CCTrCH List		~~1~~0 to <maxnoC CTrCH>		List of uplink CCTrCH which provide TPC	–	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>DL DPCH information		0..1			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information		1 .. <maxnoof DLts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	

>>>DL Code Information		1 .. <maxnoOfDPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
DCH Information		0 to <maxnoofDCHs>			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>UL FP mode	M		9.2.1.66		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
>DCH Specific Info		*1..<maxnoofDCHs>*			–	
>>DCH ID	M		9.2.1.20		–	
>>CCTrCH ID	M		9.2.3.3	UL CCTrCH in which the DCH is mapped	–	
>>CCTrCH ID	M		9.2.3.3	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	M		9.2.1.59	For UL	–	
>>Transport Format Set	M		9.2.1.59	For DL	–	
>>Retention Priority	M		9.2.1.52A		–	
>>Frame Handling Priority	O		9.2.1.30		–	
>>QE-Selector	C-CoorDCH		9.2.1.50A		–	
DSCH Information		0 to <Maxnoof DSCHs>			GLOBAL	reject
>DSCH ID	M		9.2.1.27		–	
>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	M		9.2.1.59	For DSCH	–	
>Retention Priority	M		9.2.1.52A		–	
>Frame handling Priority	M		9.2.1.30		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
USCH Information		0 to <Maxnoof USCHs>			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
>CCTrCH ID	M		9.2.3.3	UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M		9.2.1.59	For USCH	–	
>Retention Priority	M		9.2.1.52A		–	
RL Information		1			YES	reject
>RL ID	M		9.2.1.53		–	
>C-ID	M		9.2.1.9		–	
>Frame Offset	M		9.2.1.31		–	
>Initial DL transmission Power	M		DL Power 9.2.1.21		–	

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

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

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for one UE
maxnoOfDPCH	Maximum number of DPCH in one CCTrCH
maxnoCCTrCH	Number of CCTrCH for one UE.
MaxnoofDSCHs	Maximum number of DSCH for one UE
MaxnoofUSCHs	Maximum number of USCH for one UE
MaxnoofDLts	Maximum number of Downlink time slots per Radio Link
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.1.42.2 TDD Message

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	reject
Transaction ID	M		9.2.1.62		–	
UL CCTrCH to Add		*0..* <maxnoofCCTrCHs>			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>Puncture Limit	M		9.2.1.50		–	
>UL DPCH Information		*0..1*			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information		1 .. <maxnoofULts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	
>>>TFCI Presence	M		9.2.1.57		–	
>>>UL Code Information		1 .. <maxnoOfDPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
UL CCTrCH to Modify		*0..* <maxnoofCCTrCHs>			GLOBAL	reject
>CCTrCH ID	M				–	
>TFCS	O				–	
>TFCI Coding	O				–	
>Puncture Limit	O				–	
>UL DPCH to add		*0..1*			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>UL Timeslot Information		1 .. <maxnoofULts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M				–	
>>>TFCI Presence	M				–	

>>>UL Code Information		1 .. <maxnoOfDPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>UL DPCH to modify		*0..1*			YES	notify
>>Repetition Period	O		9.2.3.16		–	
>>Repetition Length	O		9.2.3.15		–	
>>TDD DPCH Offset	O		9.2.3.19A		–	
>>UL Timeslot Information		0 to <maxnoofULts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	O				–	
>>>TFCI Presence	O				–	
>>>UL Code Information		0 to <maxnoOfDPCH>			–	
>>>>DPCH ID	M		9.2.3.5		–	
>>>>TDD Channelisation Code	M		9.2.3.19		–	
>UL DPCH to delete		*0..* <maxnoof DPCHs>			GLOBAL	reject
>>DPCH ID	M				–	
UL CCTrCH to Delete		*0..* <maxnoof CCTrCHs>			GLOBAL	reject
>CCTrCH ID	M				–	
DL CCTrCH to Add		*0..* <maxnoof CCTrCHs			GLOBAL	reject
>CCTrCH ID	M		9.2.3.3		–	
>TFCS	M		9.2.1.58		–	
>TFCI Coding	M		9.2.3.22		–	
>PunctureLimit	M		9.2.1.50		–	
>TPC CCTrCH List		~~1~~0 to <maxnoCCTrCH>		List of uplink CCTrCH which provide TPC	–	
>>TPC CCTrCH ID	M		CCTrCH ID 9.2.3.3		–	
>DL DPCH Information		*0..1*			YES	notify
>>Repetition Period	M		9.2.3.16		–	
>>Repetition Length	M		9.2.3.15		–	
>>TDD DPCH Offset	M		9.2.3.19A		–	
>>DL Timeslot Information		1 .. <maxnoofDLts>			–	
>>>Time Slot	M		9.2.3.23		–	
>>>Midamble Shift and Burst Type	M		9.2.3.7		–	

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

		<maxnoof DPCHs>				
>>DPCH ID	M				–	
DL CCTrCH to Delete		*0..<maxnoof CCTrCHs*			GLOBAL	reject
>CCTrCH ID	M				–	
DCHs to Modify		*0..<maxnoofDCHs>*			GLOBAL	reject
>UL FP Mode	O		9.2.1.66		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
>DCH Specific Info		*1..<maxnoofDCHs>*			–	
>>DCH ID	M		9.2.1.20		–	
>>CCTrCH ID	O		9.2.3.3	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	O		9.2.3.3	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	O		9.2.1.59	For the UL.	–	
>>Transport Format Set	O		9.2.1.59	For the DL.	–	
>>Retention Priority	O		9.2.1.52A		–	
>>Frame Handling Priority	O		9.2.1.30		–	
DCHs to Add		*0..<maxnoofDCHs>*			GLOBAL	reject
>Payload CRC Presence Indicator	M		9.2.1.49		–	
>UL FP Mode	M		9.2.1.66		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
>DCH Specific Info		*1..<maxnoofDCHs>*			–	
>>DCH ID	M		9.2.1.20		–	
>>CCTrCH ID	M		9.2.3.3	UL CCTrCH in which the DCH is mapped.	–	
>>CCTrCH ID	M		9.2.3.3	DL CCTrCH in which the DCH is mapped	–	
>>Transport Format Set	M		9.2.1.59	For the UL.	–	
>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>Retention Priority	M		9.2.1.52A		–	
>>Frame Handling Priority	M		9.2.1.30		–	
>>QE-Selector	C-CoorDCH		9.2.1.50A		–	
DCHs to Delete		*0..<maxnoofDCHs>*			GLOBAL	reject
>DCH ID	M		9.2.1.20		–	

DSCH Information to modify		0 .. <Maxno of DSCHs >			GLOBAL	reject
>DSCH ID	M		9.2.1.27		–	
>CCTrCH ID	O		9.2.3.3	DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	O		9.2.1.59		–	
>Retention Priority	O		9.2.1.52A		–	
>Frame handling Priority	O		9.2.1.30		–	
>ToAWS	O		9.2.1.61		–	
>ToAWE	O		9.2.1.60		–	
DSCH Information to add		0 .. <Maxno of DSCHs >			GLOBAL	reject
>DSCH ID	M		9.2.1.27		–	
>CCTrCH ID	M		9.2.3.2	DL CCTrCH in which the DSCH is mapped	–	
>Transport Format Set	M		9.2.1.59		–	
>Retention Priority	M		9.2.1.52A		–	
>Frame handling Priority	O		9.2.1.30		–	
>ToAWS	M		9.2.1.61		–	
>ToAWE	M		9.2.1.60		–	
DSCH Information to delete		0 .. <Maxno of DSCHs >			GLOBAL	reject
>DSCH ID	M		9.2.1.27		–	
USCH Information to modify		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
>Transport Format Set	O		9.2.1.59		–	
>Retention Priority	O		9.2.1.52A		–	
>CCTrCH ID	O		9.2.3.2	UL CCTrCH in which the USCH is mapped	–	
USCH Information to add		0 .. <Maxno of USCHs >			GLOBAL	reject
>USCH ID	M		9.2.3.27		–	
>CCTrCH ID	M			UL CCTrCH in which the USCH is mapped	–	
>Transport Format Set	M		9.2.1.59		–	
>Retention Priority	M		9.2.1.52A		–	
USCH Information to delete		0 .. <Maxno of			GLOBAL	reject

		USCHs >				
>USCH ID	M		9.2.3.27		–	
RL Information		*0..1*			YES	reject
>RL ID	M		9.2.1.53		–	
>Maximum Downlink Power	O		DL Power 9.2.1.21		–	
>Minimum Downlink Power	O		DL Power 9.2.1.21		–	

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

Range Bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofCCTrCHs	Maximum number of CCTrCHs for a UE.
Maxnoof DPCHs	Maximum number of DPCHs in one CCTrCH.
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUSCHs	Maximum number of USCHs for one UE
MaxnoofDLts	Maximum number of Downlink time slots per Radio Link
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.3.3 PDU Definitions

```
/*** snip ***/

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

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

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

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

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

DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (1..maxNrOfCCTrCHs)) OF DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    tFCS                                        TFCS,
    tFCI-Coding                                 TFCI-Coding,
    punctureLimit                               PunctureLimit,
    cCTrCH-TPCList                              CCTrCH-TPCAddList-RL-ReconfPrepTDD OPTIONAL,
    dl-DPCH-InformationList                     DL-DPCH-InformationAddList-RL-ReconfPrepTDD   OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

DL-CCTrCH-InformationAddItem-RL-ReconfPrepTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

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

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

/*** snip ***/

DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD ::= SEQUENCE {
    cCTrCH-ID                                   CCTrCH-ID,
    tFCS                                        TFCS                                                    OPTIONAL,
    tFCI-Coding                                 TFCI-Coding                                             OPTIONAL,
    punctureLimit                               PunctureLimit                                           OPTIONAL,
    cCTrCH-TPCList                              CCTrCH-TPCModifyList-RL-ReconfPrepTDD                   OPTIONAL,
    dl-DPCH-InformationAddList                  DL-DPCH-InformationModify-AddList-RL-ReconfPrepTDD      OPTIONAL,
    dl-DPCH-InformationModifyList               DL-DPCH-InformationModify-ModifyList-RL-ReconfPrepTDD   OPTIONAL,
    dl-DPCH-InformationDeleteList               DL-DPCH-InformationModify-DeleteList-RL-ReconfPrepTDD   OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { DL-CCTrCH-InformationModifyItem-RL-ReconfPrepTDD-ExtIEs} }
    OPTIONAL,
    ...
}

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

CCTrCH-TPCModifyList-RL-ReconfPrepTDD ::= SEQUENCE (SIZE (01..maxNrOfCCTrCHs)) OF CCTrCH-TPCModifyItem-RL-ReconfPrepTDD

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

/*** snip ***/
```

3GPP TSG RAN WG3 Meeting #17
Chicago, IL, US, 20-24 Nov 2000

Document ***R3-003275***
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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25.433	**CR**	**308r2**	Current Version:	V 3.3.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to: RAN #10 *list expected approval meeting # here ↑*

for approval [X]
for information [ ]

strategic [ ]
non-strategic [ ]
(for SMG use only)

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

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

Source R-WG3 **Date:** 23 Nov 2000

Subject: Variability of SF in UL Physical Channel for TDD mode

Work item:

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

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

Release:

Phase 2	[ ]
Release 96	[ ]
Release 97	[ ]
Release 98	[ ]
Release 99	[X]
Release 00	[ ]

Reason for change: In TSG RAN WG1, there is an effort to introduce enabling/disabling the autonomous variation of SF by UE in UL transmissions. This CR provides the corresponding changes to WG3 specification to support the WG1 controlling mechanism.

Consequences if not accepted:
Inconsistency between Working Groups specifications as WG1 and WG2 agreed to adopt control for the SF variation.

Clauses affected: 9.1.37.2; 9.1.40.2; 9.2.3.26B; 9.3.3; 9.3.4

Other specs affected:

Other 3G core specifications	[X]	→ List of CRs:	25.221CR34; 25.222CR50; 25.331CR618; 25.423CR260r2
Other GSM core specifications	[ ]	→ List of CRs:	
MS test specifications	[ ]	→ List of CRs:	
BSS test specifications	[ ]	→ List of CRs:	
O&M specifications	[ ]	→ List of CRs:	

Other comments: Changes compared to revision 1 (in R3-003207):

- '*UL PhysCH SF Variation*' IE removed from RESOURCE STATUS INDICATION message and now included in RADIO LINK SETUP RESPONSE (TDD) and RADIO LINK ADDITION RESPONSE (TDD)
- 'UL_SF_variation_allowed' changed into 'UL_SF_variation_supported'
- 'UL_SF_variation_NOT_allowed' changed into 'UL_SF_variation_NOT_supported'
- Description of IE is referring to 'Radio Link' instead of 'Physical Channel'
- ASN.1 coding adopted according to changes from above

help.doc

<--------- double-click here for help and instructions on how to create a CR.

9.1.37 RADIO LINK SETUP RESPONSE

9.1.37.1 FDD message

/*** snip ***/

9.1.37.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	ignore
Communication Control Port ID	M		9.2.1.15		YES	ignore
RL Information Response		1			YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Interference per Time Slot		1 .. <maxnoofULts>		Interference Level for each UL time slot within the Radio Link		
>>Time Slot	M		9.2.3.23			
>>UL Timeslot ISCP	M		9.2.3.26A			
>UL PhysCH SF Variation	M		9.2.3.26B		–	
>DCH Information Response		1 to <maxnoofDCH>		Only one DCH per set of coordinated DCH shall be included.	GLOBAL	ignore
>>DCH ID	M		9.2.1.20		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>DSCH Information Response		0 .. <Maxnoof DSCHs>			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH Information Response		0 .. <Maxnoof USCHs>			GLOBAL	ignore
>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCH per UE
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUSCHs	Maximum number of USCHs for one UE
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.1.40 RADIO LINK ADDITION RESPONSE

9.1.40.1 FDD message

/*** snip ***/

9.1.40.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
RL Information response		1			YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Interference per Time Slot	M	1 .. *<maxnoofULts>*		Interference Level for each UL time slot within the Radio Link		
>>Time Slot	M		9.2.3.23			
>>UL Timeslot ISCP	M		9.2.3.26A		–	
>UL PhysCH SF Variation	M		9.2.3.26B		–	
>Diversity Indication	M		9.2.1.26		–	
>CHOICE *diversity indication*						
>*Combining*				In TDD it indicates whether the old Transport Bearer shall be reused or not	YES	ignore
>>RL ID	M		9.2.1.53	Reference RL	–	
>*Non combining*					YES	ignore
>>DCH Information Response		0..*<maxnoofDCHs>*			–	
>>>DCH ID	M		9.2.1.20		–	
>>>Binding ID	M		9.2.1.4		–	
>>>Transport Layer Address	M		9.2.1.63		–	
>DSCH Information Response		0 .. <MaxnoofDSCHs			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH Information Response		0 .. <MaxnoofUSCHs			GLOBAL	ignore
>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs per UE
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUDCHs	Maximum number of USCHs for one UE
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.2.3.26 Transmission Diversity Applied

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

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

9.2.3.26A UL Timeslot ISCP

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

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

9.2.3.26B UL PhysCH SF Variation

Indicates whether variation of SF in UL is supported by Radio Link or not.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL PhysCH SF Variation			ENUMERATED (SF_Variation_supported, SF_Variation_NOT_supported)	

9.3.3 PDU Definitions

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

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

IMPORTS
    Active-Pattern-Sequence-Information,
    AddorDeleteIndicator,
    AICH-Power,
    AICH-TransmissionTiming,
    APPreambleSignature,
    APSubChannelNumber,
    AvailabilityStatus,
    BCCH-ModificationTime,
    BindingID,
    BlockingPriorityIndicator,
    BlockSTTD-Indicator,
    Cause,
    CCTrCH-ID,
    CDSubChannelNumbers,
    CellParameterID,
    CFN,
    Channel-Assignment-Indication,
    ChipOffset,
    C-ID,
    Closedlooptimingadjustmentmode,
    CommonChannelsCapacityConsumptionLaw,
    Compressed-Mode-Deactivation-Flag-RL-AdditionRqstFDD,
    CommonMeasurementType,
    CommonMeasurementValue,
    CommonPhysicalChannelID,
    CommonTransportChannelID,
    CommunicationControlPortID,
```

```
    ConfigurationGenerationID,
    ConstantValue,
    CriticalityDiagnostics,
    CPCH-Allowed-Total-Rate,
    CPCHScramblingCodeNumber,
    CPCH-UL-DPCCH-SlotFormat,
    CRNC-CommunicationContextID,
    DCH-ID,
    DedicatedChannelsCapacityConsumptionLaw,
    DedicatedMeasurementType,
    DedicatedMeasurementValue,
    DiversityControlField,
    DiversityMode,
    DL-DPCH-SlotFormat,
    DL-or-Global-CapacityCredit,
    DL-Power,
    DLPowerAveragingWindowSize,
    DL-ScramblingCode,
    DL-TimeslotISCP,
    DL-TPC-Pattern01Count,
    DPCH-ID,
    DSCH-ID,
    FDD-DL-ChannelisationCodeNumber,
    FDD-S-CCPCH-Offset,
    FDD-TPC-DownlinkStepSize,
    FirstRLS-Indicator,
    FrameHandlingPriority,
    FrameOffset,
    IB-OC-ID,
    IB-SG-DATA,
    IB-SG-POS,
    IB-SG-REP,
    IB-Type,
    IndicationType,
    LimitedPowerIncrease,
    Local-Cell-ID,
    MaximumDL-PowerCapability,
    MaximumTransmissionPower,
    Max-Number-of-PCPCHes,
    MaxNrOfUL-DPDCHs,
    MaxPRACH-MidambleShifts,
    MeasurementFilterCoefficient,
    MeasurementID,
    MidambleShiftAndBurstType,
    MinimumDL-PowerCapability,
    MinSpreadingFactor,
    MinUL-ChannelisationCodeLength,
    MultiplexingPosition,
    NEOT,
    NFmax,
    N-INSYNC-IND,
```

```
    N-OUTSYNC-IND,
    NodeB-CommunicationContextID,
    NStartMessage,
    PagingIndicatorLength,
    PayloadCRC-PresenceIndicator,
    PCCPCH-Power,
    PCP-Length,
    PDSCH-CodeMapping,
    PDSCHSet-ID,
    PDSCH-ID,
    PICH-Mode,
    PICH-Power,
    PowerAdjustmentType,
    PowerOffset,
    PowerRaiseLimit,
    PRACH-Midamble,
    PreambleSignatures,
    PreambleThreshold,
    PrimaryCPICH-Power,
    PrimaryScramblingCode,
    PropagationDelay,
    SCH-TimeSlot,
    PunctureLimit,
    PUSCHSet-ID,
    PUSCH-ID,
    QE-Selector,
    RACH-SlotFormat,
    RACH-SubChannelNumbers,
    RepetitionLength,
    RepetitionPeriod,
    ReportCharacteristics,
    ResourceOperationalState,
    RetentionPriority,
    RL-Set-ID,
    RL-ID,
    RSSI-Value,
    AdjustmentPeriod,
    ScaledAdjustmentRatio,
    MaxAdjustmentStep,
    ScramblingCodeNumber,
    SecondaryCCPCH-SlotFormat,
    S-FieldLength,
    SFN,
    ShutdownTimer,
    SIB-Originator,
    SSDT-Cell-Identity,
    SSDT-CellID-Length,
    SSDT-Indication,
    STTD-Indicator,
    SSDT-SupportIndicator,
    SyncCase,
```

```
    T-Cell,
    T-RLFAILURE,
    TDD-ChannelisationCode,
    TDD-DPCHOffset,
    TDD-TPC-DownlinkStepSize,
    TDD-PhysicalChannelOffset,
    TFCI-Coding,
    TFCI-Presence,
    TFCI-SignallingMode,
    TFCS,
    TimeSlot,
    TimeSlotDirection,
    TimeSlotStatus,
    ToAWE,
    ToAWS,
    TransmissionDiversityApplied,
    TransmitDiversityIndicator,
    TransmissionGapPatternSequenceCodeInformation,
    Transmission-Gap-Pattern-Sequence-Information,
    TransportFormatSet,
    TransportLayerAddress,
    TSTD-Indicator,
    UARFCN,
    UL-CapacityCredit,
    UL-DPCCH-SlotFormat,
    UL-SIR,
    UL-FP-Mode,
    UL-PhysCH-SF-Variation,
    UL-ScramblingCode,
    UL-TimeslotISCP-Value,
    UL-TimeslotISCP-Value-IncrDecrThres,
    USCH-ID
FROM NBAP-IEs

/*** snip ***/
```

```
/*** snip ***/

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

RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    uL-InterferenceList-RL-SetupRspTDD          UL-InterferenceList-RL-SetupRspTDD,
    ul-PhysCH-SF-Variation                      UL-PhysCH-SF-Variation,
    dCH-InformationResponseList                 DCH-InformationResponseList-RL-SetupRspTDD,
    dSCH-InformationResponseList                DSCH-InformationResponseList-RL-SetupRspTDD     OPTIONAL,
    uSCH-InformationResponseList                USCH-InformationResponseList-RL-SetupRspTDD     OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RL-InformationResponseList-RL-SetupRspTDD-ExtIEs} }     OPTIONAL,
    ...
}

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

/*** snip ***/
```

```
/*** snip ***/

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

RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    uL-InterferenceList-RL-AdditionRspTDD   UL-InterferenceList-RL-AdditionRspTDD,
    ul-PhysCH-SF-Variation                  UL-PhysCH-SF-Variation,
    diversityIndication                     DiversityIndication-RL-AdditionRspTDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    dSCH-InfomationResponseList             DSCH-InformationResponseList-RL-AdditionRspTDD    OPTIONAL,
    uSCH-InfomationResponseList             USCH-InformationResponseList-RL-AdditionRspTDD    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

RL-InformationResponse-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

/*** snip ***/
```

9.3.4 Information Elements Definitions

```
/*** snip ***/

-- ========================================
--  U
-- ========================================

UARFCN ::= INTEGER (0..16383, ...)
-- corresponds to 1885.2MHz .. 2024.8MHz

UL-CapacityCredit ::= INTEGER (0..65535)

UL-DL-mode ::= ENUMERATED {
    ul-only,
    dl-only,
    both-ul-and-dl
}


Uplink-Compressed-Mode-Method   ::= ENUMERATED {
    sFdiv2,
    higher-layer-scheduling,
    ...
}

UL-DPCCH-SlotFormat ::= INTEGER (0..5,...)

UL-SIR ::= INTEGER (-82..173)
-- According to mapping in [16]

UL-FP-Mode ::= ENUMERATED {
    normal,
    silent,
    ...
}

UL-PhysCH-SF-Variation ::= ENUMERATED {
    sf-variation-supported,
    sf-variation-not-supported
}

UL-ScramblingCode ::= SEQUENCE {
    uL-ScramblingCodeNumber         UL-ScramblingCodeNumber,
    uL-ScramblingCodeLength         UL-ScramblingCodeLength,
    iE-Extensions                   ProtocolExtensionContainer { { UL-ScramblingCode-ExtIEs } }   OPTIONAL,
    ...
}
```

```
/*** snip ***/
```

3GPP TSG RAN WG3 Meeting #17
Chicago, IL, US, 20-24 Nov 2000

Document ***R3-003064***

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

CHANGE REQUEST

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25.433	**CR**	**309**	Current Version:	V 3.3.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	RAN #10	for approval	X	strategic		*(for SMG use only)*
list expected approval meeting # here ↑		for information		non-strategic		

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

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

Source R-WG3 **Date:** 14 Nov 2000

Subject: Resource Status Indication corrections for TDD

Work item:

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

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:
Despite the same Resource Status Indication procedure is used for FDD and TDD, some IEs in RESOURCE STATUS INDICATION message are defined for FDD only. This CR proposes to define also these IEs commonly for both modes.

Consequences if not accepted:
Inconsistency in the specification

Clauses affected: 9.1.17; 9.1.32; 9.2.1.9; 9.2.1.20; 9.2.1.65; 9.2.2.3; 9.2.2.6; 9.2.2.12; 9.2.2.60

Other specs affected:

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

Other comments:


help.doc

<--------- double-click here for help and instructions on how to create a CR.

9.1.17 AUDIT RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Information		*1*				
>DL or Global Capacity Credit	M		9.2.1.20B2.12			
>UL Capacity Credit	O		9.2.1.65A2.60			
>Common Channels Capacity Consumption Law	M		9.2.1.9A2.3			
>Dedicated Channels Capacity Consumption Law	M		9.2.1.20A2.6			
Cell Information		*0.. <* maxCellinNodeB *>*			EACH	ignore
>C-ID	M		9.2.1.9		–	
>Configuration Generation ID	M		9.2.1.16			
>Resource Operational State	M		9.2.1.52		–	
>Availability Status	M		9.2.1.2		–	
>Local Cell ID	M		9.2.1.38	The local cell that the cell is configured on		
>Primary SCH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary SCH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Primary CPICH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary CPICH Information		*0..<maxSCPICHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Primary CCPCH Information		*0..1*			YES	ignore

>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>BCH Information		*0..1*			YES	ignore
>>Common Transport Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary CCPCH Information		*0..<maxSCCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PCH Information		*0..1*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PICH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>FACH Information		*0..<maxFACHCell>*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PRACH Information		*0..<maxPRACHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>RACH Information		*0..<maxRACHCell>*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>**AICH Information**		*0..<maxRACHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PCPCH Information		*0..<maxPCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	

>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>CPCH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>AP-AICH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.14			
>>Resource Operational State	M		9.2.1.52			
>>Availability Status	M		9.2.1.2			
>CD/CA-ICH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.14			
>>Resource Operational State	M		9.2.1.52			
>>Availability Status	M		9.2.1.2			
>SCH Information		0..1			YES	ignore
>>Common Physical Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
Communication Control Port Information		*0..<maxCCPinNodeB>*			EACH	ignore
>Communication Control Port ID	M		9.2.1.15		–	
>Resource Operational State	M		9.2.1.52		–	
>Availability Status	M		9.2.1.2		–	
Local Cell Information		*0..<maxLocalCellinNodeB>*			EACH	ignore
>Local Cell ID	M		9.2.1.38		–	
>DL or Global Capacity Credit	M		9.2.1.20B~~2.12~~			
>UL Capacity Credit	O		9.2.1.65A~~2.60~~			
>Common Channels Capacity Consumption Law	M		9.2.1.9A~~2.3~~			
>Dedicated Channels Capacity Consumption Law	M		9.2.1.20A~~2.6~~			
>Maximum DL Power Capability	O		9.2.1.39		–	
>Minimum Spreading Factor	O		9.2.1.47			
>Minimum DL Power Capability	O		9.2.1.46A		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxCellinNodeB	Maximum number of Cell that can be configured in Node B
MaxCCPinNodeB	Maximum number of communication control ports that can exist in the Node B
MaxCPCHCell	Maximum number of CPCHes that can be defined in a Cell
MaxLocalCellinNodeB	Maximum number of Local Cells that can exist in the Node B
MaxPCPCHCell	Maximum number of PCPCHes that can be defined in a Cell
MaxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.
MaxSCCPCHCell	Maximum number of Secondary CCPCH that can be defined in a Cell.
MaxFACHCell	Maximum number of FACHes that can be defined in a Cell

9.1.32 RESOURCE STATUS INDICATION

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	ignore
Transaction ID	M		9.2.1.62		–	
Indication Type	M		9.2.1.36		YES	ignore
CHOICE Indication Type					YES	ignore
>"No Failure"					YES	ignore
>>Node B Information		*1*				
>>>DL or Global Capacity Credit	M		9.2.1.20B2.12			
>>>UL Capacity Credit	O		9.2.1.65A2.60			
>>>Common Channels Capacity Consumption Law	M		9.2.1.9A2.3			
>>>Dedicated Channels Capacity Consumption Law	M		9.2.1.20A2.6			
>>Local Cell Information		*1.. <max LocalCellinNodeB >*			EACH	ignore
>>>Local Cell ID	M		9.2.1.58		–	
>>>Add/Delete Indicator	M		9.2.1.1		–	
>>>DL or Global Capacity Credit	C-add		9.2.1.20B2.12			
>>>UL Capacity Credit	O		9.2.1.65A2.60			
>>>Common Channels Capacity Consumption Law	C-add		9.2.1.9A2.3			
>>>Dedicated Channels Capacity Consumption Law	C-add		9.2.1.20A2.6			
>>>Maximum DL Power Capability	C-add		9.2.1.39		–	
>>>Minimum Spreading Factor	C-add		9.2.1.47		–	
>>>Minimum DL Power Capability	M		9.2.1.46A		–	
>"Service Impacting"					YES	ignore
>>Node B Information		*0..1*				
>>>DL or Global Capacity Credit	O		9.2.1.20B2.12			
>>>UL Capacity Credit	O		9.2.1.65A2.60			
>>Local Cell Information		*0.. <maxLocal CellinNode B>*			EACH	ignore
>>>Local Cell ID	M		9.2.1.38		–	
>>>DL or Global Capacity Credit	O		9.2.1.20B2.12			
>>>UL Capacity Credit	O		9.2.1.65A2.60			
>>>Maximum DL	O		9.2.1.39		–	

Power Capability						
>>>Minimum Spreading Factor	O		9.2.1.47		–	
>>>Minimum DL Power Capability	O		9.2.1.46A		–	
>>Communication Control Port Information		*0.. <maxCCPinNodeB>*			EACH	ignore
>>>Communication Control Port ID	M		9.2.1.15		–	
>>>Resource Operational State	M		9.2.1.52		–	
>>>Availability Status	M		9.2.1.2		–	
>>Cell Information		*0.. <maxCellinNodeB>*			EACH	ignore
>>>C-ID	M		9.2.1.9		–	
>>>Resource Operational State	O		9.2.1.52		–	
>>>Availability Status	O		9.2.1.2		–	
>>>Primary SCH Information		*0..1*			YES	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>Secondary SCH Information		*0..1*			YES	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>Primary CPICH Information		*0..1*			YES	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>Secondary CPICH Information		*0..<maxSCPICHCell>*			EACH	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>Primary CCPCH Information		*0..1*			YES	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	

>>>>Availability Status	M		9.2.1.2		–	
>>>BCH Information		*0.. 1*			YES	ignore
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>Secondary CCPCH Information		*0..<maxSCCPCHCell>*			EACH	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>PCH Information		*0..1*			EACH	ignore
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>PICH Information		*0..1*			YES	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>FACH Information		*0.. <maxFACHCell>*			EACH	ignore
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>PRACH Information		*0..<maxPRACHCell>*			EACH	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>RACH Information		*0.. <maxPRACHCell>*			EACH	ignore
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>AICH Information		*0..*			EACH	ignore

		<maxPRACHCell>				
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>PCPCH Information		*0..<maxPCPCHCell>*			EACH	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>CPCH Information		*0.. <maxCPCHCell>*			EACH	ignore
>>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>AP-AICH Information		*0.. <maxCPCHCell>*			EACH	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>CD/CA-ICH Information		*0.. <maxCPCHCell>*			EACH	ignore
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
>>>SCH Information		0..1			YES	ignore
>>>>Common Physical Channel ID	M		9.2.1.14		–	
>>>>Resource Operational State	M		9.2.1.52		–	
>>>>Availability Status	M		9.2.1.2		–	
Cause	O		9.2.1.6		YES	ignore

Condition	Explanation
C-add	This IE is present only if "Add/Delete Indicator" equals to add

Range bound	Explanation
MaxLocalCellinNodeB	Maximum number of Local Cells that can exist in the Node B
MaxCellinNodeB	Maximum number of C ID that can be configured in Node B
MaxCPCHCell	Maximum number of CPCHes that can be defined in a Cell
MaxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.
MaxSCCPCHCell	Maximum number of Secondary CCPCH that can be defined in a Cell.
MaxFACHCell	Maximum number of FACHes that can be defined in a Cell
MaxPCPCHCell	Maximum number of PCPCHes that can be defined in a Cell
MaxPRACHCell	Maximum number of PRACHes and AICHes that can be defined in a Cell
MaxCCPinNodeB	Maximum number of communication control ports that can exist in the Node B
MaxConsumptionLaws	Maximum number of credit consumption laws.

9.2.1.8 CFN Offset

Void

9.2.1.9 C-ID

The C-ID (Cell identifier) is the identifier of a cell in one RNC.

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

9.2.1.9A Common Channels Capacity Consumption Law

The capacity consumption law indicates the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor.

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Common Transport Channel Setup

In case of usage of the Common Transport Channel Deletion, the consumption cost given in the consumption law must be credited to the Capacity Credit.

If the modelling of the internal resource capability of the B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Common Channels Capacity Consumption Law				
>SF allocation law		<maxNumberOfSF>		For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.
>>DL cost	M		INTEGER (0..65535)	
>>UL cost	M		INTEGER (0..65535)	

9.2.1.10 Common Measurement Object Type

The Common Measurement Object type indicates the type of object that the measurement is to be performed on.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Common Measurement Object Type			ENUMERATED (CELL, RACH, CPCH,…)	

9.2.1.19 DCH Combination Indicator

Void

9.2.1.20 DCH ID

The DCH ID is the identifier of an active dedicated transport channel. It is unique for each active DCH among the active DCHs simultaneously allocated for the same UE.

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

9.2.1.20A Dedicated Channels Capacity Consumption Law

The capacity consumption law indicates the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor.

This capacity consumption law indicates the consumption law to be used with the following procedures :

- Radio Link Setup
- Radio Link Addition
- Radio Link Reconfiguration (case of increase of the SF)

In case of usage of the Radio Link Deletion or of the Radio Link Reconfiguration (case of decrease of the SF) procedure, the consumption cost given in the consumption law shall be credited to the Capacity Credit.

If the modelling of the internal resource capability of the B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Dedicated Channels Capacity Consumption Law				
>SF allocation law		<maxNumberOfSF>		For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.
>>DL cost	M		INTEGER (0..65535)	
>>UL cost	M		INTEGER (0..65535)	

9.2.1.20B DL or Global Capacity Credit

The capacity credit indicates to the CRNC the Downlink or global capacity of a node B or of a local cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL or Global Capacity Credit			INTEGER (0..65535)	

9.2.1.21 DL Power

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

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

9.2.1.64 TSTD Indicator

Indicates if TSTD shall be active or not.

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

9.2.1.65 UARFCN

Designate the central frequency of the channel number.

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
UARFCN			INTEGER (0..16383, …)	corresponds to 0.0Hz.. 3276.6MHz ([15] section 5.4 and [15])

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

9.2.1.65A UL Capacity Credit

The capacity credit indicates to the CRNC the Uplink capacity of a node B or of a local cell.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL Capacity Credit			INTEGER (0..65535)	

9.2.1.66 UL FP mode

This parameter defines if normal or silent mode of the Frame Protocol shall be used for the UL.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL FP mode			ENUMERATED (Normal, Silent,…)	

9.2.1.67 UL interference level

Void.

9.2.2.2 Chip Offset

The Chip Offset is defined as the radio timing offset inside a radio frame. The Chip offset is used as offset for the DL DPCH relative to the Primary CPICH timing.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Chip Offset			INTEGER (0..38399)	Chips

9.2.2.2A Closed Loop Timing Adjustment Mode

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

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
Closed Loop Timing Adjustment Mode			ENUMERATED (Offset1, Offset2,…)	According to [10] chapter 7.1: Offset1 = slot(j+1)mod15 Offset2 = slot(j+2)mod15

9.2.2.3 Common Channels Capacity Consumption Law

Void

~~The capacity consumption law indicates the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor.~~

~~This capacity consumption law indicates the consumption law to be used with the following procedures :~~

- ~~Common Transport Channel Setup~~

~~In case of usage of the Common Transport Channel Deletion, the consumption cost given in the consumption law must be credited to the Capacity Credit.~~

~~If the modelling of the internal resource capability of the B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".~~

~~IE/Group Name~~	~~Presence~~	~~Range~~	~~IE type and reference~~	~~Semantics description~~
~~Common Channels Capacity Consumption Law~~				
~~>SF allocation law~~		~~<maxNumberOfSF>~~		~~For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.~~
~~>>DL cost~~	~~M~~		~~INTEGER (0..65535)~~	
~~>>UL cost~~	~~M~~		~~INTEGER (0..65535)~~	

9.2.2.3A Compressed Mode Deactivation Flag

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

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

9.2.2.4 Compressed Mode Method

Void.

9.2.2.4A CPCH Allowed Total Rate

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

9.2.2.4B CPCH Scrambling Code Number

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

9.2.2.4C CPCH UL DPCCH Slot Format

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

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

9.2.2.5 D-Field Length

Void.

9.2.2.6 Dedicated Channels Capacity Consumption Law

Void

~~The capacity consumption law indicates the CRNC how the Capacity Credit is consumed by NBAP set of procedures, depending on the allocated Spreading Factor.~~

~~This capacity consumption law indicates the consumption law to be used with the following procedures :~~

- ~~Radio Link Setup~~
- ~~Radio Link Addition~~
- ~~Radio Link Reconfiguration (case of increase of the SF)~~

~~In case of usage of the Radio Link Deletion or of the Radio Link Reconfiguration (case of decrease of the SF) procedure, the consumption cost given in the consumption law shall be credited to the Capacity Credit.~~

~~If the modelling of the internal resource capability of the B is modelled independently for the Uplink and Downlink, the "DL cost" shall be applied to the "DL or Global Capacity Credit" and the "UL Cost" shall be applied to the "UL Capacity Credit". If it is modelled as shared resources, both the "DL cost" and the "UL cost" shall be applied to the "DL or Global Capacity Credit".~~

~~IE/Group Name~~	~~Presence~~	~~Range~~	~~IE type and reference~~	~~Semantics description~~
~~Dedicated Channels Capacity Consumption Law~~				
~~>SF allocation law~~		~~<maxNumberOfSF>~~		~~For each SF, cost of its allocation: the first instance corresponds to SF = 4, the second to SF = 8, the third to SF = 16 and so on.~~
~~>>DL cost~~	~~M~~		~~INTEGER (0..65535)~~	
~~>>UL cost~~	~~M~~		~~INTEGER (0..65535)~~	

9.2.2.7 Diversity Control Field

Void.

9.2.2.8 Diversity Indication

Void.

9.2.2.9 Diversity mode

Define the diversity mode to be applied.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Diversity Mode			ENUMERATED(None, STTD, Closed loop mode 1, Closed loop mode2,…)	

9.2.2.10 DL DPCH Slot Format

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

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

9.2.2.11 DL frame type

Void.

9.2.2.12 DL or Global Capacity Credit

Void

~~The capacity credit indicates to the CRNC the Downlink or global capacity of a node B or of a local cell.~~

~~IE/Group Name~~	~~Presence~~	~~Range~~	~~IE type and reference~~	~~Semantics description~~
~~DL or Global Capacity Credit~~			~~INTEGER (0..65535)~~	

9.2.2.12A DL_power_averaging_window_size

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

9.2.2.13 DL Scrambling Code

DL scrambling code to be used by the RL. One cell may have multiple DL scrambling codes available.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
DL Scrambling Code			INTEGER (0..15)	0= Primary scrambling code of the cell 1…15= Secondary scrambling code

9.2.2.59 UL Scrambling Code

The UL Scrambling Code is the scrambling code used by UE. Every UE has its specific UL Scrambling Code.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
UL scrambling code				
>UL scrambling code number	M		INTEGER (0.. 2^{24}-1)	
>UL scrambling code length	M		ENUMERATED(Short, Long)	

9.2.2.60 UL Capacity Credit

Void

~~The capacity credit indicates to the CRNC the Uplink capacity of a node B or of a local cell.~~

~~IE/Group Name~~	~~Presence~~	~~Range~~	~~IE type and reference~~	~~Semantics description~~
~~UL Capacity Credit~~			~~INTEGER (0..65535)~~	

9.2.3 TDD specific Parameters

9.2.3.1 Block STTD Indicator

Indicates if Block STTD antenna diversity is applied or not to the PCCPCH.

Information Element/Group Name	Presence	Range	IE type and reference	Semantics description
Block STTD Indicator			ENUMERATED(active, inactive)	

9.2.3.2 Burst Type

Void.

3GPP TSG-RAN WG3 Meeting #17
Chicago, US, 20th-24th November 2000

Document R3-003271
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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

25.433	CR	312 r2	Current Version:	V 3.3.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	RAN #10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		For information		non-strategic		

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

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

Source: R-WG3 **Date:** 23 Nov 2000

Subject: Extensibility correction for FACH Information Response

Work item:

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

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

In the current NBAP specification the IE's "Transport Layer Address" and "Binding ID" in the FACH Information group of the " COMMON TRANSPORT CHANNEL SETUP RESPONSE" message are mandatory.
Also the IE's "Transport Layer Address" and "Binding ID" of the PCH, RACH and CPCH information groups are mandatory.
For extensibility reasons this IE's should be made optional.

This CR changes the IE's "Transport Layer Address" and "Binding ID" in the FACH, PCH, RACH and CPCH Information group of the "COMMON TRANSPORT CHANNEL SETUP RESPONSE" message from mandatory to optional.

Consequences if not approved:
If this CR is not approved the future option of "co-ordinated FACH", sharing the same transport bearer on Iub, will be excluded. Also the future option of co-ordinated - PCH, RACH, CPCH will be excluded.

Clauses affected: 8.2.1.2, 9.1.4,

Other specs affected:

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

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

8.2 NBAP Common Procedures

8.2.1 Common Transport Channel Setup

…

8.2.1.2 Successful Operation

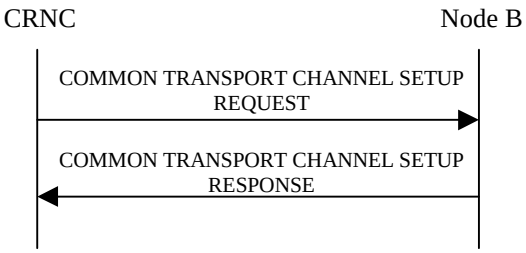

Figure 11: Common Transport Channel Setup procedure, Successful Operation

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

One message can configure only one of the following combinations:

- [FDD-one Secondary CCPCH, and FACHes, PCH and PICH related to that Secondary CCPCH], or
- [TDD- Secondary CCPCHes and FACHes, PCH with the corresponding PICH related to that group of Secondary CCPCHes], or
- one PRACH, and one RACH and one AICH(FDD) related to that PRACH at the time.
- [FDD-PCPCHes, one CPCH, one AP_AICH and one CD/CA-ICH related to that group of PCPCHes at the time.]

Secondary CCPCH:

[FDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains a Secondary CCPCH,the Node B shall configure and activate it according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message. The handling of the optional *STTD* IE is FFS.]

[TDD - When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains one or more Secondary CCPCHs, the Node B shall configure and activate them according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.]

[TDD- FACHs and PCH may be mapped onto a CCTrCH which may consist of several Secondary CCPCHs]

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains one or several FACHs, the Node B shall configure and activate them according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

If the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains a PCH and a PICH, the Node B shall configure and activate them according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message. [FDD- The handling of the optional *STTD* IE for PICH is FFS.]

PRACH:

When the COMMON TRANSPORT CHANNEL SETUP REQUET message contains a PRACH, the Node B shall configure and activate it according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

[FDD-PCPCHes]: When the COMMON TRANSPORT CHANNEL SETUP REQUEST message contains PCPCHes, the Node B shall configure and activate it according to the COMMON TRANSPORT CHANNEL SETUP REQUEST message.

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

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

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

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

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

9.1.4 COMMON TRANSPORT CHANNEL SETUP RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	Reject
Transaction ID	M		9.2.1.62		–	
FACH Parameters		*0..<maxnoofFACHs>*		The FACH Parameters may be combined with PCH Parameters	GLOBAL	Ignore
>Common Transport Channel ID	M		9.2.1.14		–	
>Binding ID	~~M~~O		9.2.1.4		–	
>Transport ~~layer~~ Layer ~~address~~Address	~~M~~O		9.2.1.63		–	
PCH Parameters		*0..1*		The PCH Parameters may be combined with FACH Parameters	GLOBAL	Ignore
>Common transport channel ID	M		9.2.1.14		–	
>Binding ID	~~M~~O		9.2.1.4		–	
>Transport ~~layer~~ Layer ~~address~~Address	~~M~~O		9.2.1.63		–	
RACH parameters		*0..1*		The RACH Parameters shall not be combined with FACH Parameters or PCH Parameters	GLOBAL	Ignore
>Common transport channel ID	M		9.2.1.14		–	
>Binding ID	~~M~~O		9.2.1.4		–	
>Transport ~~layer~~ Layer ~~address~~Address	~~M~~O		9.2.1.63		–	
CPCH parameters		*0..1*		The CPCH Parameters shall not be combined with FACH Parameters or PCH Parameters or RACH Parameters	GLOBAL	Ignore
>Common transport channel ID	M		9.2.1.14		–	
>Binding ID	~~M~~O		9.2.1.4		–	
>Transport ~~layer~~ Layer ~~address~~Address	~~M~~O		9.2.1.63		–	
Criticality Diagnostics	O		9.2.1.17		YES	Ignore

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

9.3.3 PDU Definitions

```
...

-- **************************************************************
--
-- COMMON TRANSPORT CHANNEL SETUP RESPONSE
--
-- **************************************************************



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

CommonTransportChannelSetupResponse-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-FACH-ParametersList-CTCH-SetupRsp    CRITICALITY ignore      TYPE    FACH-
ParametersList-CTCH-SetupRsp        PRESENCE    optional    }|
    { ID    id-PCH-Parameters-CTCH-SetupRsp         CRITICALITY ignore      TYPE    PCH-Parameters-
CTCH-SetupRsp               PRESENCE    optional    }|
    { ID    id-RACH-Parameters-CTCH-SetupRsp        CRITICALITY ignore      TYPE    RACH-
Parameters-CTCH-SetupRsp            PRESENCE    optional    }|
    { ID    id-CPCH-Parameters-CTCH-SetupRsp        CRITICALITY ignore              TYPE    CPCH-
Parameters-CTCH-SetupRsp            PRESENCE    optional    }|
    { ID    id-CriticalityDiagnostics                       CRITICALITY     ignore      TYPE
    CriticalityDiagnostics                          PRESENCE    optional    },
    ...
}

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

FACH-ParametersList-CTCH-SetupRsp ::= SEQUENCE (SIZE (1..maxNrOfFACHs)) OF FACH-ParametersItem-
CTCH-SetupRsp

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

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

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

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

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

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

CPCH-Parameters-CTCH-SetupRsp ::= SEQUENCE {
    commonTransportChannelID            CommonTransportChannelID,
    bindingID                           BindingID OPTIONAL,
    transportLayerAddress               TransportLayerAddress OPTIONAL,
```

```
    iE-Extensions                       ProtocolExtensionContainer  { { CPCH-Parameters-CTCH-
SetupRsp-ExtIEs} }      OPTIONAL,
    ...
}

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

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Chicago, US, 20th – 24th November 2000

Document R3-003095
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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

25.433	CR	313	Current Version:	3.3.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	TSG-RAN#10	for approval	X	Strategic		*(for SMG use only)*
list expected approval meeting # here ↑		for information		non-strategic		

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

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

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

Subject: Refinement for extension tools in ASN.1 (Iub/Iur extensibility: issue 2.1)

Work item:

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

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

This CR proposes to add ProtocolExtensionContainer to SEQUENCE type IEs which have not yet contained ProtocolExtensionContainer and to add ellipsis notation (...) to CHOICE type IEs which have not yet contained ellipsis notation (...). The purpose of this change is to ensure the future extension. However, this change is not applied to the following IEs.

- *TDD DPCH Offset* IE (9.3.4)

This IE is defined as a non-extensible in 9.2.3.19A.

- *Transaction ID* IE (9.3.5)

This IE is defined as a non-extensible in 9.2.1.62.

- *Procedure ID* IE (9.3.5)

The current definition (including procedure code and ddMode) is enough.

- *Private ID* IE (9.3.5)

The current definition is enough.

Consequences if not accepted:
Future extension may be restricted and the usage of extension tools (ProtocolExtensionContainer or ellipsis notation (...)) are not effective.

Clauses affected: 9.3.4

Other specs affected:

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

Other

comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

9.3.4 Information Elements Definitions

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

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

DEFINITIONS AUTOMATIC TAGS ::=
BEGIN
```

-- Partly omitted --

```
CommonChannelsCapacityConsumptionLaw ::= SEQUENCE (SIZE(1..maxNrOfSF)) OF
    SEQUENCE {
        dl-Cost      INTEGER (0..65535),
        ul-Cost      INTEGER (0..65535),
        iE-Extensions     ProtocolExtensionContainer { { CommonChannelsCapacityConsumptionLaw-ExtIEs } }   OPTIONAL,
    ...
}

CommonChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

-- Partly omitted --

```
DedicatedChannelsCapacityConsumptionLaw ::= SEQUENCE ( SIZE(1..maxNrOfSF) ) OF
    SEQUENCE {
        dl-Cost      INTEGER (0..65535),
        ul-Cost      INTEGER (0..65535),
        iE-Extensions     ProtocolExtensionContainer { { DedicatedChannelsCapacityConsumptionLaw-ExtIEs } }                    OPTIONAL,
    ...
}

DedicatedChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

-- Partly omitted --

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

-- Partly omitted --

```
PDSCH-CodeMapping ::= SEQUENCE {
    dl-ScramblingCode             DL-ScramblingCode,
    signallingMethod                  CHOICE {
        code-Range                        PDSCH-CodeMapping-PDSCH-CodeMappingInformationList,
        tFCI-Range                        PDSCH-CodeMapping-DSCH-MappingInformationList,
        explicit                          PDSCH-CodeMapping-PDSCH-CodeInformationList,
        ...
    },
    iE-Extensions                         ProtocolExtensionContainer  { { PDSCH-CodeMapping-ExtIEs} }    OPTIONAL,
    ...
}

PDSCH-CodeMapping-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

-- Partly omitted --

```
ReportCharacteristicsType-ReportPeriodicity ::= CHOICE {
    msec                ReportPeriodicity-Scaledmsec,
    min                 ReportPeriodicity-Scaledmin,
    ...
}
```

-- Partly omitted --

```
TransportFormatCombination-Beta ::= CHOICE {
    signalledGainFactors      SEQUENCE {
        betaC                     BetaCD,
        betaD                     BetaCD,
        refTFCNumber              RefTFCNumber OPTIONAL,
        iE-Extensions     ProtocolExtensionContainer { { SignalledGainFactors-ExtIEs } }        OPTIONAL,
    ...
    },
    computedGainFactors               RefTFCNumber,
    ...
}

SignalledGainFactors-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

-- partly omitted --

```
TFCS ::= SEQUENCE {
    tFCSvalues                    CHOICE {
        no-Split-in-TFCI          TFCS-TFCSList,
        split-in-TFCI             SEQUENCE {
            transportFormatCombination-DCH     TFCS-DCHList,
            signallingMethod                   CHOICE {
                tFCI-Range                         TFCS-MapingOnDSCHList,
                explicit                           TFCS-DSCHList,
                ...
            },
            iE-Extensions                      ProtocolExtensionContainer { { Split-in-TFCI-ExtIEs } }    OPTIONAL,
            ...
        },
    ...
    },
    iE-Extensions     ProtocolExtensionContainer  { { TFCS-ExtIEs} }       OPTIONAL,
    ...
}

Split-in-TFCI-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

TFCS-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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Chicago, USA, 20th-24th November, 2000

Tdoc R3-003254

CR-Form-v3

CHANGE REQUEST

⌘ **25.433** **CR** **CR-314** ⌘ rev **R1** ⌘ Current version: **3.3.0** ⌘

*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 on CPCH
Source:	⌘	R-WG3
Work item code:	⌘	***Date:*** ⌘ 2000.11
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:	⌘	maxNrOfCPCHs and maxCPCHCell have the same definition which is Maximum number of CPCHes that can be defined in a Cell. But it has different value. It should be aligned.
Summary of change:	⌘	MaxCPCHCell has the same value as maxNrOfCPCHs
Consequences if not approved:	⌘	The values which are defined exactly same will have different value and it gives ambiguity.

Clauses affected:	⌘	9.3.6
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ 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.

9.3.6 Constant Definitions

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

-- **************************************************************
--
-- Elementary Procedures
--
-- **************************************************************

id-audit                                                INTEGER ::= 0
id-auditRequired                                        INTEGER ::= 1
id-blockResource                                        INTEGER ::= 2
id-cellDeletion                                         INTEGER ::= 3
id-cellReconfiguration                                  INTEGER ::= 4
id-cellSetup                                            INTEGER ::= 5
id-commonMeasurementFailure                             INTEGER ::= 6
id-commonMeasurementInitiation                          INTEGER ::= 7
id-commonMeasurementReport                              INTEGER ::= 8
id-commonMeasurementTermination                         INTEGER ::= 9
id-commonTransportChannelDelete                         INTEGER ::= 10
id-commonTransportChannelReconfigure                    INTEGER ::= 11
id-commonTransportChannelSetup                          INTEGER ::= 12
id-compressedModeCommand                                INTEGER ::= 14
id-dedicatedMeasurementFailure                          INTEGER ::= 16
id-dedicatedMeasurementInitiation                       INTEGER ::= 17
id-dedicatedMeasurementReport                           INTEGER ::= 18
id-dedicatedMeasurementTermination                      INTEGER ::= 19
id-downlinkPowerControl                                 INTEGER ::= 20
id-errorIndicationForDedicated                          INTEGER ::= 21
id-physicalSharedChannelReconfiguration                 INTEGER ::= 37
id-privateMessageForDedicated                           INTEGER ::= 22
id-radioLinkAddition                                    INTEGER ::= 23
id-radioLinkDeletion                                    INTEGER ::= 24
id-radioLinkFailure                                     INTEGER ::= 25
id-radioLinkRestoration                                 INTEGER ::= 26
id-radioLinkSetup                                       INTEGER ::= 27
id-resourceStatusIndication                             INTEGER ::= 28
id-synchronisedRadioLinkReconfigurationCancellation     INTEGER ::= 29
id-synchronisedRadioLinkReconfigurationCommit           INTEGER ::= 30
id-synchronisedRadioLinkReconfigurationPreparation      INTEGER ::= 31
id-systemInformationUpdate                              INTEGER ::= 32
id-unblockResource                                      INTEGER ::= 33
id-unSynchronisedRadioLinkReconfiguration               INTEGER ::= 34
id-errorIndicationForCommon                             INTEGER ::= 35
id-privateMessageForCommon                              INTEGER ::= 36
id-reset                                                INTEGER ::= 37

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

maxPrivateIEs                   INTEGER ::= 65535
maxProtocolExtensions           INTEGER ::= 65535
maxProtocolIEs                  INTEGER ::= 65535

-- **************************************************************
--
-- Lists
--
-- **************************************************************

maxNrOfCodes                INTEGER ::= 10
```

```
maxNrOfDLTSs                INTEGER ::= 15
maxNrOfDLCodes              INTEGER ::= 8
maxNrOfErrors               INTEGER ::= 256
maxNrOfTFs                  INTEGER ::= 32
maxNrOfTFCs                 INTEGER ::= 1024
maxNrOfRLs                  INTEGER ::= 16
maxNrOfRLSets               INTEGER ::= maxNrOfRLs
maxNrOfDPCHs                INTEGER ::= 240
maxNrOfSCCPCHs              INTEGER ::= 8
maxNrOfCPCHs                INTEGER ::= 4
maxNrOfPCPCHs               INTEGER ::= 64
maxNrOfDCHs                 INTEGER ::= 128
maxNrOfDSCHs                INTEGER ::= 32
maxNrOfFACHs                INTEGER ::= 8
maxNrOfCCTrCHs              INTEGER ::= 16
maxNrOfPDSCHs               INTEGER ::= 256
maxNrOfPUSCHs               INTEGER ::= 256
maxNrOfPDSCHSets            INTEGER ::= 256
maxNrOfPUSCHSets            INTEGER ::= 256
maxNrOfULTSs                INTEGER ::= 15
maxNrOfUSCHs                INTEGER ::= 32
maxAPSigNum                 INTEGER ::= 16
maxNrOfSlotFormatsPRACH     INTEGER ::= 8
maxCellinNodeB              INTEGER ::= 256
maxCCPinNodeB               INTEGER ::= 256
maxCPCHCell                 INTEGER ::= maxNrOfCPCHs64
maxCTFC                     INTEGER ::= 16777215
maxLocalCellinNodeB         INTEGER ::= maxCellinNodeB
maxNoofLen                  INTEGER ::= 7
maxRACHCell                 INTEGER ::= maxPRACHCell
maxPRACHCell                INTEGER ::= 16
maxPCPCHCell                INTEGER ::= 64
maxSCCPCHCell               INTEGER ::= 32
maxSCPICHCell               INTEGER ::= 32
maxTTI-count                INTEGER ::= 4
maxIBSEG                    INTEGER ::= 16
maxIB                       INTEGER ::= 64
maxFACHCell                 INTEGER ::= 256 -- maxNrOfFACHs * maxSCCPCHCell
maxRateMatching             INTEGER ::= 256
maxCodeNrComp-1             INTEGER ::= 256
maxNrOfCodeGroups           INTEGER ::= 256
maxNrOfTFCIGroups           INTEGER ::= 256
maxNrOfTFCI1Combs           INTEGER ::= 512
maxNrOfTFCI2Combs           INTEGER ::= 1024
maxNrOfTFCI2Combs-1         INTEGER ::= 1023
maxNrOfSF                   INTEGER ::= 8
maxTGPS                     INTEGER ::= 6
maxCommunicationContext     INTEGER ::= 1048575
```

3GPP TSG-RA WG3 Meeting #17
Chicago, USA, 20-24 Nov 2000

***Document* R3-003177**
e.g. for 3GPP use the format TP-99xxx
or for SMG, use the format P-99-xxx

CHANGE REQUEST

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

25.433	CR	316r1	Current Version:	3.3.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	RAN#10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

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

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

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

Subject: Minor changes to NBAP

Work item:

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

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

Release:

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

Reason for change: The CR corrects a wrong reference and deletes a wrong paragraph. It also adds semantics in Audit Response, tabular format, for clarification, and corrects a wrong indentation.

If the CR is not accepted these mistakes/unclear parts will persist in the specification.

R1: Clauses affected are added.

Clauses affected: 8.3.2, 9.1.3, 9.1.17

Other specs affected:

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

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

8.3.2 Synchronised Radio Link Reconfiguration Preparation

8.3.2.1 General

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

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

8.3.2.2 Successful Operation

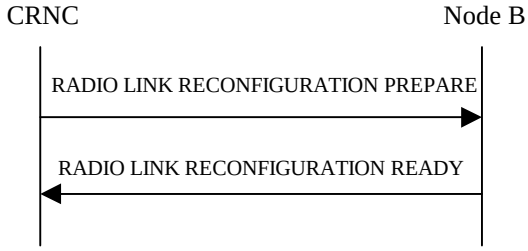

Figure 30: Synchronised Radio Link Reconfiguration procedure, Successful Operation

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

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

DCH Modification:

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

- If the *DCHs to Modify* IE includes the *Retention Priority* IE, the Node B should use this information to prioritise the retention of the resources used by the DCHes in error situation.
- If the *DCHs to Modify* IE includes the *Frame Handling Priority* IE, the Node B should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new configuration has been activated.
- If the *DCHs to Modify* IE includes the *Transport Format Set* IE for the UL of a DCH, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCHs to Modify* IE includes the *Transport Format Set* IE for the DL of a DCH, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCHs to Modify* IE includes multiple *DCH Specific Info* IEs then the Node B shall treat the DCHs in the *DCHs to Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCHs to Modify* IE includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

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

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

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

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

DCH Addition:

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

- The Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCHs in the new configuration.

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

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

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

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

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

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

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

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

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

DCH Deletion:

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

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

Physical Channel Modification:

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

- [FDD - If the *UL DPCH Information* IE includes the *Uplink Scrambling Code* IE, the Node B shall apply this Uplink Scrambling Code to the new configuration.]
- [FDD – If the *UL DPCH Information* IE includes the *Min UL Channelisation Code Length* IE, the Node B shall apply the value in the new configuration. The Node B shall apply the contents of the *Max Number of UL DPDCHs* IE (if it is included) in the new configuration.]
- [FDD – If the *UL DPCH Information* IE includes the *UL SIR Target* IE, the Node B shall use the value for the UL inner loop power control when the new configuration is being used.]
- [FDD – If the *UL DPCH Information* IE includes the *Puncture Limit* IE, the Node B shall apply the value in the uplink of the new configuratio
- [FDD - The Node B shall use the *TFCS* IE for the UL (if present) when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the Uplink of the new configuration.]
- [FDD - If the *UL DPCH Information* IE includes the *UL DPCCH Slot Format* IE, group the Node B shall set the new Uplink DPCCH Structure to the new configuration.]
- [FDD - If the *UL DPCH Information* IE includes the *Diversity Mode* IE, the Node B shall apply diversity according to the given value.]
- [FDD – If the *UL DPCH Information* IE includes an *SSDT Cell Identity Length* IE and/or an *S-Field Length* IE, the Node B shall apply the values in the new configuration.]

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

- [FDD - The Node B shall use the *TFCS* IE for the DL (if it is present) when reserving resources for the downlink of the new configuration. The Node B shall apply the new TFCS in the Downlink of the new configuration.]
- [FDD – If the *DL DPCH Information* IE includes the *TFCI Signalling Mode* IE or the *TFCI Presence* IE, the Node B shall use the information when building TFCIs in the new configuration.]
- [FDD - If the *DL DPCH Information* IE includes the *DL DPCCH Slot Format* IE, group the Node B shall set the new Downlink DPCCH Structure to the new configuration.]
- [FDD – If the *DL DPCH Information* IE includes the *Multiplexing Position* IE, the Node B shall apply the indicated multiplexing type in the new configuration.]
- [FDD – If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to 'Used', the Node B shall use Limited Power Increase ref. [10] section 5.2.1 for the inner loop DL power control in the new configuration.]
- [FDD – If the *DL DPCH Information* IE includes the *Limited Power Increase* IE and the IE is set to 'Not Used', the Node B shall not use Limited Power Increase for the inner loop DL power control in the new configuration.]
- [FDD - If the *DL DPCH Information* IE includes the *PDSCH code mapping* IE then the Node B shall apply the defined mapping between TFCI values and PDSCH channelisation codes.]
- [FDD - If the *DL DPCH Information* IE includes the *PDSCH RL ID* IE then the Node B shall infer that the PDSCH for the specified user will be transmitted on the defined radio link.]

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

[TDD - UL/DL CCTrCH Modification]

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

- [TDD - If the IE includes any of *TFCS* IE, *TFCI coding* IE or *Puncture limit* IE the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

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

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

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

[TDD – UL/DL CCTrCH Addition]

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

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

[TDD – UL/DL CCTrCH Deletion]

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

DSCH Addition/Modification/Deletion:

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

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

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

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

[TDD - USCH Addition/Modification/Deletion:]

- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes USCH information for the USCHs to be added/modified/deleted then the NodeB shall use this information to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.

RL Information:

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

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

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

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

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

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

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

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

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

General

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

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

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

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

9.1.3 COMMON TRANSPORT CHANNEL SETUP REQUEST

9.1.3.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
C-ID	M		9.2.1.9		YES	reject
Configuration Generation ID	M		9.2.1.16		YES	reject
CHOICE *common physical channel to be configured*					YES	ignore
>*Secondary CCPCH*					YES	reject
>Secondary CCPCH		*1*				
>>Common Physical Channel ID	M		9.2.1.13		–	
>>FDD S-CCPCH Offset	M		9.2.2.15	Corresponds to [7]: $_{S\text{-}CCPCH,k}$	–	
>>DL Scrambling Code	M		9.2.2.13		–	
>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>TFCS	M		9.2.1.54	For the DL.	–	
>>Secondary CCPCH Slot Format	M		9.2.2.43		–	
~~>~~>>TFCI Presence	C – SlotFormat		9.2.1.57	Refer to TS [7]	–	
>>Multiplexing Position	M		9.2.2.23		–	
>>Power Offset Information		1			–	
>>>PO1	M		Power Offset 9.2.2.29	Power offset for the TFCI bits	–	
>>>PO3	M		Power Offset 9.2.2.29	Power offset for the pilot bits	–	
>>STTD Indicator	M		9.2.2.47		–	
>>FACH Parameters	C-choiceCh	*0..<maxnoofFACHs>*			GLOBAL	reject
>>>Common transport channel ID	M		9.2.1.14		–	
>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>ToAWS	M		9.2.1.61		–	
>>>ToAWE	M		9.2.1.60		–	
>>>Max FACH Power	M		DL Power 9.2.1.21	Maximum allowed power on the FACH.	–	
>>PCH Parameters	C-choiceCh	*0..1*			YES	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>Transport Format Set	M		9.2.1.59	For the DL.	–	
>>>ToAWS	M		9.2.1.61		–	
>>>ToAWE	M		9.2.1.60		–	

>>>PCH Power	M		DL Power 9.2.1.21		–	
>>>PICH Parameters		*1*			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>DL Scrambling Code	M		9.2.2.13		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>PICH Power	M		9.2.1.49A		–	
>>>>PICH Mode	M		9.2.2.26	Number of PI per frame	–	
>>>>STTD Indicator	M		9..2.2.48		–	
>PRACH					YES	reject
>PRACH		*1*				
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Scrambling Code Number	M		9.2.2.42		–	
>>TFCS	M		9.2.1.58	For the UL.	–	
>>Preamble Signatures	M		9.2.2.31		–	
>>Allowed Slot Format Information		*1..<MaxnoofSlotFormatsPRACH>*			–	
>>>RACH Slot Format	M		9.2.2.37		–	
>>RACH Sub Channel Numbers	M		9.2.2.38		–	
>>Puncture Limit	M		9.2.1.50	For the UL	–	
>>Preamble threshold	M		9.2.2.32		–	
>>RACH Parameters		*1*			YES	reject
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>Transport Format Set	M		9.2.1.59	For the UL.	–	
>>>AICH Parameters		*1*			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>DL Scrambling Code	M		9.2.2.13		–	
>>>>AICH Transmission Timing	M		9.2.2.1		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>AICH Power	M		9.2.~~1.49A.~~ 2.D		–	
>>>>STTD Indicator	M		9.2.2.47		–	
>PCPCHes					YES	Reject
>>CPCH Parameters		*1*			–	
>>>Common Transport Channel ID	M		9.2.1.14		–	
>>>Transport Format Set	M		9.2.1.59	For the UL.	–	
>>>AP Preamble Scrambling Code	M		CPCH Scrambling Code Number 9.2.2.4B		–	
>>>CD Preamble Scrambling Code	M		CPCH Scrambling		–	

			Code Number 9.2.2.4B			
>>>TFCS	M		9.2.1.58	For the UL	–	
>>>CD Signatures	O		Preamble Signatures 9.2.2.31	Note: When not present, all CD signatures are to be used.	–	
>>>CD Sub Channel Numbers	C-CDSig		9.2.2.1C		–	
>>>Puncture Limit	M		9.2.1.50	For the UL	–	
>>>CPCH UL DPCCH Slot Format	M		9.2.2.4C	For UL CPCH message control part	–	
>>>UL SIR	M		UL SIR 9.2.2.58		–	
>>>Initial DL transmission Power	M		DL Power 9.2.1.21		–	
>>>Maximum DL Power	M		DL Power 9.2.1.21		–	
>>>Minimum DL Power	M		DL Power 9.2.1.21		–	
>>>PO2	M		Power Offset 9.2.2.29	Power offset for the TPC bits	–	
>>>PO3	M		Power Offset 9.2.2.29	Power offset for the pilot bits	–	
>>>FDD TPC DL Step Size	M		9.2.2.16		–	
>>>N_Start_Message	M		9.2.2.23C		–	
>>>N_EOT	M		9.2.2.23A		–	
>>>Channel Assignment Indication	M		9.2.2.1D		–	
>>>CPCH Allowed Total Rate	M		9.2.2.4A		–	
>>>PCPCH Channel Information		*1..<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 Channelisation Code Number	M		9.2.2.14	For DL CPCH message part	–	
>>>>PCP Length	M		9.2.2.24A		–	
>>>>UCSM Information	C-NCA	*1*			–	
>>>>>Min UL Channelisation Code	M		9.2.2.22		–	

Length						
>>>>>NF_max	M		9.2.2.23B		–	
>>>>>Channel Request Parameters		*0..<maxAPSigNum>*			–	
>>>>>>AP Preamble Signature	M		9.2.2.1A		–	
>>>>>AP Sub Channel Number	O		9.2.2.1B		–	
>>>VCAM Mapping Information	C-CA	*1..<maxnoofLen>*		Refer to TS [18]	–	
>>>>Min UL Channelisation Code Length	M		9.2.2.22		–	
>>>>NF_max	M		9.2.2.23B		–	
>>>>Max Number of PCPCHes	M		9.2.2.20A		–	
>>>>SF Request Parameters		*1..<maxAPSigNum>*			–	
>>>>>AP Preamble Signature	M		9.2.2.1A		–	
>>>>>AP Sub Channel Number	O		9.2.2.1B		–	
>>>AP-AICH Parameters		*1*			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>DL Scrambling Code	M		9.2.2.13		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>AP-AICH Power	M		AICH Power 9.2.2.D		–	
>>>>CSICH Power	M		AICH Power 9.2.2.D	For CSICH bits at end of AP-AICH slot	–	
>>>>STTD Indicator	M		9.2.2.47		–	
>>>CD/CA-ICH Parameters		*1*			–	
>>>>Common Physical Channel ID	M		9.2.1.13		–	
>>>>DL Scrambling Code	M		9.2.2.13		–	
>>>>FDD DL Channelisation Code Number	M		9.2.2.14		–	
>>>>CD/CA-ICH Power	M		AICH Power 9.2.2.D		–	
>>>>STTD Indicator	M		9.2.2.47		–	

Condition	Explanation
SlotFormat	This IE is present only if the Secondary CCPCH Slot Format is equal to any of the value 8 to 17
ChoiceCh	One of the channels FACH or PCH or both must be present.
CDSig	The IE may be present if the Available CD Signatures is present.
CA	The IE must be present if the Channel Assignment Indication is set to 'CA Active'.
NCA	The IE must be present if the Channel Assignment Indication is set to 'CA Inactive'.

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

9.1.17 AUDIT RESPONSE

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
Transaction ID	M		9.2.1.62		–	
Node B Information		*1*				
>DL or Global Capacity Credit	M		9.2.2.12			
>UL Capacity Credit	O		9.2.2.60			
>Common Channels Capacity Consumption Law	M		9.2.2.3			
>Dedicated Channels Capacity Consumption Law	M		9.2.2.6			
Cell Information		*0.. <* maxCellinNodeB >			EACH	ignore
>C-ID	M		9.2.1.9		–	
>Configuration Generation ID	M		9.2.1.16			
>Resource Operational State	M		9.2.1.52		–	
>Availability Status	M		9.2.1.2		–	
>Local Cell ID	M		9.2.1.38	The local cell that the cell is configured on		
>Primary SCH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary SCH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Primary CPICH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary CPICH Information		*0..<maxSCPICHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Primary CCPCH Information		*0..1*			YES	ignore
>>Common Physical	M		9.2.1.13		–	

Channel ID						
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>BCH Information		*0..1*			YES	ignore
>>Common Transport Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>Secondary CCPCH Information		*0..<maxSCCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PCH Information		*0..1*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PICH Information		*0..1*			YES	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>FACH Information		*0..<maxFACHCell>*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PRACH Information		*0..<maxPRACHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>RACH Information		*0..<maxRACHCell>*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>**AICH Information**		*0..<maxRACHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>PCPCH Information		*0..<maxPCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.13		–	
>>Resource	M		9.2.1.52		–	

Operational State						
>>Availability Status	M		9.2.1.2		–	
>CPCH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Transport Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
>AP-AICH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.14			
>>Resource Operational State	M		9.2.1.52			
>>Availability Status	M		9.2.1.2			
>CD/CA-ICH Information		*0..<maxCPCHCell>*			EACH	ignore
>>Common Physical Channel ID	M		9.2.1.14			
>>Resource Operational State	M		9.2.1.52			
>>Availability Status	M		9.2.1.2			
>SCH Information		0..1		TDD Sync Channel	YES	ignore
>>Common Physical Channel ID	M		9.2.1.14		–	
>>Resource Operational State	M		9.2.1.52		–	
>>Availability Status	M		9.2.1.2		–	
Communication Control Port Information		*0..<maxCCPinNodeB>*			EACH	ignore
>Communication Control Port ID	M		9.2.1.15		–	
>Resource Operational State	M		9.2.1.52		–	
>Availability Status	M		9.2.1.2		–	
Local Cell Information		*0..<maxLocalCellinNodeB>*			EACH	ignore
>Local Cell ID	M		9.2.1.38		–	
>DL or Global Capacity Credit	M		9.2.2.12			
>UL Capacity Credit	O		9.2.2.60			
>Common Channels Capacity Consumption Law	M		9.2.2.3			
>Dedicated Channels Capacity Consumption Law	M		9.2.2.6			
>Maximum DL Power Capability	O		9.2.1.39		–	
>Minimum Spreading Factor	O		9.2.1.47			
>Minimum DL Power Capability	O		9.2.1.46A		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxCellinNodeB	Maximum number of Cell that can be configured in Node B
MaxCCPinNodeB	Maximum number of communication control ports that can exist in the Node B
MaxCPCHCell	Maximum number of CPCHes that can be defined in a Cell
MaxLocalCellinNodeB	Maximum number of Local Cells that can exist in the Node B
MaxPCPCHCell	Maximum number of PCPCHes that can be defined in a Cell
MaxSCPICHCell	Maximum number of Secondary CPICH that can be defined in a Cell.
MaxSCCPCHCell	Maximum number of Secondary CCPCH that can be defined in a Cell.
MaxFACHCell	Maximum number of FACHes that can be defined in a Cell

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

CHANGE REQUEST

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25.433	CR	320r1	Current Version:	3.3.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	RAN #10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

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

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

Source: R-WG3 **Date:** 20 Nov 2000

Subject: Time measurement granularity

Work item:

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

F	Correction	X	**Release:**	Phase 2	
A	Corresponds to a correction in an earlier release			Release 96	
B	Addition of feature			Release 97	
C	Functional modification of feature			Release 98	
D	Editorial modification			Release 99	X
				Release 00	

Reason for change:

RAN WG4 changed the granularity of the Round Trip Time measurement indicated in LS R3-003154. This CR reflects the changes made in 25.133 and incorporates this new definition in 25.433.

Consequences if not accepted:

Inconsistency between WG3 and WG4 specs.

Clauses affected: 9.2.1.24, 9.2.1.43, 9.2.1.44, 9.3.4

Other specs affected:

Other 3G core specifications	X	→ List of CRs:	25.423: CR275r1
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

9.2.1.24 Dedicated Measurement Value

The Dedicated Measurement Value shall be the most recent value for this measurement, for which the reporting criteria were met.

IE/Group Name	Presence	Range	IE Type and Reference	Semantics Description
Dedicated measurement Value				
>SIR value	C *MeasValue*		INTEGER(0..63)	According to mapping in [22] and [23]
>SIR error Value	C *MeasValue*		INTEGER(0..125)	According to mapping in [22], (FDD only)
>Transmitted Code Power Value	C *MeasValue*		INTEGER(0..127)	According to mapping in [22] and [23]
>RSCP	C *MeasValue*		INTEGER(0..81)	According to mapping in [23], (TDD only)
>Rx Timing Deviation	C MeasValue		INTEGER(0..2047)	According to mapping in [23], (TDD only)
>Round Trip Time	C *MeasValue*		INTEGER(0..~~8191~~32767)	According to mapping in [22], (FDD only)

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

9.2.1.43 Measurement Increase/Decrease Threshold

The Measurement Increase/Decrease Threshold defines the threshold that shall trigger Event C or D.

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
RSSI	*C – Threshold*		INTEGER(0..620)	0: 0 dB 1: 0.1 dB 2: 0.2 dB … 620: 62dB
Transmitted Carrier Power	*C – Threshold*		INTEGER(0..100)	According to mapping in [22] and [23]
Acknowledged PRACH Preambles	*C – Threshold*		INTEGER(0..240,…)	According to mapping in [22], (FDD only)
UL Timeslot ISCP	*C – Threshold*		INTEGER(0..80)	0: 0 dB 1: 0.5 dB 2: 1 dB … 80: 40dB, (TDD only)
SIR	*C – Threshold*		INTEGER(0..62)	0: 0 dB 1: 0.5 dB 2: 1 dB … 62: 31dB
SIR Error	*C – Threshold*		INTEGER(0..124)	0: 0 dB 1: 0.5 dB 2: 1 dB … 124: 62 dB, (FDD only)
Transmitted Code Power	*C – Threshold*		INTEGER(0..112,…)	0: 0 dB 1: 0.5 dB 2: 1 dB … 112: 56 dB
RSCP	*C – Threshold*		INTEGER(0..80)	0: 0 dB 1: 0.5 dB 2: 1 dB … 80: 40dB, (TDD only)
Round Trip Time	*C – Threshold*		INTEGER(0..~~8190~~32766)	0: 0 chips 1: ~~0.25~~0.0625 chips 2: ~~0.5~~0.1250 chips … ~~8190~~32766: ~~2047.5~~2047.875 chips, (FDD only)
Acknowledged PCPCH Access Preambles	*C – Threshold*		INTEGER(0..15,…)	According to mapping in [22] (FDD only)
Detected PCPCH Access Preambles	*C – Threshold*		INTEGER(0..240,…)	According to mapping in [22] (FDD only)

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

9.2.1.44 Measurement Threshold

The Measurement Threshold defines which threshold that shall trigger Event A, B, E or F.

Information Element / Group Name	Presence	Range	IE Type and Reference	Semantics Description
RSSI	*C – Threshold*		INTEGER(0. .621)	According to mapping in [22] and [23]
Transmitted Carrier Power	*C – Threshold*		INTEGER(0. .100)	According to mapping in [22] and [23]
Acknowledged PRACH Preambles	*C – Threshold*		INTEGER(0. .240,…)	According to mapping in [22], (FDD only)
UL Timeslot ISCP	*C – Threshold*		INTEGER(0. .81)	According to mapping in [23] (TDD only)
SIR	*C – Threshold*		INTEGER(0. .63)	According to mapping in [22] and [23]
SIR Error	*C – Threshold*		INTEGER(0. .125)	According to mapping in [22], (FDD only)
Transmitted Code Power	*C – Threshold*		INTEGER(0. .127)	According to mapping in [22] and [23]
RSCP	*C – Threshold*		INTEGER(0. .81)	According to mapping in [23] (TDD only)
Rx Timing Deviation	*C - Threshold*		INTEGER(0. .2047)	According to mapping in [23] (TDD only)
Round Trip Time	*C – Threshold*		INTEGER(0. .~~8191~~32767)	According to mapping in [22] (FDD only)
Acknowledged PCPCH Access Preambles	*C – Threshold*		INTEGER(0. .15,…)	According to mapping in [22] (FDD only)
Detected PCPCH Access Preambles	*C – Threshold*		INTEGER(0. .240,…)	According to mapping in [22] (FDD only)

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

9.3.4 Information Elements Definitions

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

-- ========================================
--  R
-- ========================================

RACH-SlotFormat ::= ENUMERATED {
    v0,
    v1,
    v2,
    v3,
    ...
}

RACH-SubChannelNumbers ::= BIT STRING (SIZE (12))
-- Bit 0=Sub Channel Number 0, Bit 1=Sub Channel Number 1, .., Bit 11=Sub Channel Number 11

RepetitionLength ::= INTEGER (1..63)

RepetitionPeriod ::= ENUMERATED {
    v1,
    v2,
    v4,
    v8,
    v16,
    v32,
    v64,
    ...
}

RepetitionNumber ::= INTEGER (1..256)

RefTFCNumber ::= INTEGER (0..3)

ReportCharacteristics ::= CHOICE {
    onDemand                NULL,
    periodic                ReportCharacteristicsType-ReportPeriodicity,
    event-a             ReportCharacteristicsType-EventA,
    event-b             ReportCharacteristicsType-EventB,
    event-c             ReportCharacteristicsType-EventC,
    event-d             ReportCharacteristicsType-EventD,
    event-e             ReportCharacteristicsType-EventE,
    event-f             ReportCharacteristicsType-EventF,
    ...
}

ReportCharacteristicsType-EventA ::= SEQUENCE {
    measurementThreshold            ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime
    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventA-
ExtIEs} }       OPTIONAL,
        ...
    }

ReportCharacteristicsType-EventA-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventB ::= SEQUENCE {
    measurementThreshold            ReportCharacteristicsType-MeasurementThreshold,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime
    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventB-
ExtIEs} }       OPTIONAL,
        ...
    }

ReportCharacteristicsType-EventB-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

```
ReportCharacteristicsType-EventC ::= SEQUENCE {
    measurementIncreaseThreshold    ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime           ReportCharacteristicsType-ScaledMeasurementChangeTime,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventC-
ExtIEs} }       OPTIONAL,
        ...
    }

ReportCharacteristicsType-EventC-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventD ::= SEQUENCE {
    measurementDecreaseThreshold    ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold,
    measurementChangeTime           ReportCharacteristicsType-ScaledMeasurementChangeTime,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventD-
ExtIEs} }       OPTIONAL,
        ...
    }

ReportCharacteristicsType-EventD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventE ::= SEQUENCE {
    measurementThreshold1           ReportCharacteristicsType-MeasurementThreshold,
    measurementThreshold2           ReportCharacteristicsType-MeasurementThreshold
    OPTIONAL,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime
    OPTIONAL,
    reportPeriodicity               ReportCharacteristicsType-ReportPeriodicity
    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventE-
ExtIEs} }       OPTIONAL,
        ...
    }

ReportCharacteristicsType-EventE-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-EventF ::= SEQUENCE {
    measurementThreshold1           ReportCharacteristicsType-MeasurementThreshold,
    measurementThreshold2           ReportCharacteristicsType-MeasurementThreshold
    OPTIONAL,
    measurementHysteresisTime       ReportCharacteristicsType-ScaledMeasurementHysteresisTime
    OPTIONAL,
    reportPeriodicity               ReportCharacteristicsType-ReportPeriodicity
    OPTIONAL,
    iE-Extensions                   ProtocolExtensionContainer { { ReportCharacteristicsType-EventF-
ExtIEs} }       OPTIONAL,
        ...
    }

ReportCharacteristicsType-EventF-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

ReportCharacteristicsType-MeasurementIncreaseDecreaseThreshold ::= CHOICE {
    rssi                            RSSI-Value-IncrDecrThres,
    transmitted-carrier-power       Transmitted-Carrier-Power-Value,
    ackowledged-prach-preambles         Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP                 UL-TimeslotISCP-Value-IncrDecrThres,
    sir                         SIR-Value-IncrDecrThres,
    sir-error                   SIR-Error-Value-IncrDecrThres,
    transmitted-code-power          Transmitted-Code-Power-Value-IncrDecrThres,
    rscp                            RSCP-Value-IncrDecrThres,
    round-trip-time                 Round-Trip-Time-IncrDecrThres,
    acknowledged-PCPCH-access-preambles     Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles         Detected-PCPCH-access-preambles,
    ...
}

ReportCharacteristicsType-MeasurementThreshold ::= CHOICE {
    rssi                            RSSI-Value,
    transmitted-carrier-power       Transmitted-Carrier-Power-Value,
    ackowledged-prach-preambles         Acknowledged-PRACH-preambles-Value,
```

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

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

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

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

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

ReportCharacteristicsType-ReportPeriodicity ::= CHOICE {
    msec                ReportPeriodicity-Scaledmsec,
    min                 ReportPeriodicity-Scaledmin
}

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

ReportPeriodicity-Scaledmin ::= INTEGER (1..60,...)
-- Unit min, Range 1min .. 60min(hour), Step 1min

ResourceOperationalState ::= ENUMERATED {
    enabled,
    disabled
}

RetentionPriority ::= INTEGER(0..15)

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

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

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

Round-Trip-Time-IncrDecrThres ::= INTEGER(0..8190 32766)

Round-Trip-Time-Value ::= INTEGER(0..8191 32767)
-- According to mapping in 25.215 [22]

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

RSCP-Value-IncrDecrThres ::= INTEGER (0..80)

RSSI-Value ::= INTEGER(0..621)
-- According to mapping in [4]/[5]

RSSI-Value-IncrDecrThres ::= INTEGER (0..620)

Rx-Timing-Deviation-Value ::= INTEGER (0..2047)
```

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Chicago, USA, 20th-24th November, 2000

R3-003182

CR-Form-v3

CHANGE REQUEST

⌘ **25.433** **CR** **321** ⌘ rev **-** ⌘ Current version: **3.3.0** ⌘

*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:	⌘	Dated References for Mapping of Measurements in NBAP
Source:	⌘	R-WG3
Work item code:	⌘	***Date:*** ⌘ November 2000
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)

R-WG3

Reason for change:	⌘	To avoid compatibility problems the mapping of measurement values shall be fixed to a dated version of 25.123 and 25.133 (rather that an non-dated reference).
Summary of change:	⌘	The version of the specifications 25.123 and 25.133 has been fixed to v3.3.x. Note that the specifications 25.123 and 25.133 are only referred to for mapping or accuracy of measurements.
Consequences if not approved:	⌘	The specifications 25.123 and 25.133 can never be changed with regards to the current mapping of measurements without risking to jeopardise the backwards compatibility of the NBAP specification, i.e. changes in 25.123 or 25.133 may cause inter-working problems (unless RAN WG4 takes responsibility for the NBAP backward and forward compatibility).

Clauses affected:	⌘			
Other specs affected:	⌘	**X** Other core specifications ☐ Test specifications ☐ O&M Specifications	⌘	TS 25.433 CR321
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.

2 References

The following documents contain provisions which, through reference in this text, constitute provisions of the present document.

References are either specific (identified by date of publication, edition number, version number, etc.) or non-specific.

For a specific reference, subsequent revisions do not apply.

For a non-specific reference, the latest version applies.

[1] 3GPP TS 25.401: "UTRAN Overall Description".

[2] 3GPP TS 25.426: "UTRAN I_{ur} and I_{ub} Interface Data Transport & Transport Signalling for DCH Data Streams".

[3] CCITT Recommendation X.731 (01/92): "Information Technology – Open Systems Interconnection – Systems Management: State Management function".

[4] 3GPP TS 25.215: "Physical layer – Measurements (FDD)".

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[22] 3GPP TS 25.133(V3.3): “Requirements for support of Radio Resource management (FDD)”

[23] 3GPP TS 25.123(V3.3): “ Requirements for support of Radio Resource management (TDD)”

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

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

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

CHANGE REQUEST

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25.433	CR	322	Current Version:	3.3.0

GSM (AA.BB) or 3G (AA.BBB) specification number ↑ *↑ CR number as allocated by MCC support team*

For submission to:	RAN #10	for approval	X	strategic		(for SMG use only)
list expected approval meeting # here ↑		for information		non-strategic		

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

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

Source: R-WG3 **Date:** 20 Nov 2000

Subject: Introduction of extension of DdMode

Work item:

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

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

Release:

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

Reason for change:

This CR proposes to make the DdMode extensible as decided in RAN3#16 meeting.

Consequences if not accepted:

DdMode is not flexible and cannot support future function.

Clauses affected: 9.2.1.46, 9.3.5

Other specs affected:

Other 3G core specifications	X	→ List of CRs:	25.423: CR277
Other GSM core specifications		→ List of CRs:	
MS test specifications		→ List of CRs:	
BSS test specifications		→ List of CRs:	
O&M specifications		→ List of CRs:	

Other comments:

help.doc

<--------- double-click here for help and instructions on how to create a CR.

9.2.1.46 Message Type

The Message Type uniquely identifies the message being sent.

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Message Type				
>Procedure ID	M	1		
>>Procedure Code	M		ENUMERATED (COMMON TRANSPORT CHANNEL SETUP, COMMON TRANSPORT CHANNEL RECONFIGURATION, COMMON TRANSPORT CHANNEL DELETION, BLOCK RESOURCE, UNBLOCK RESOURCE, AUDIT REQUIRED, AUDIT, COMMON MEASUREMENT INITIATION, COMMON MEASUREMENT REPORTING, COMMON MEASUREMENT TERMINATION, COMMON MEASUREMENT FAILURE, CELL SETUP, CELL RECONFIGURATION, CELL DELETION, RESOURCE STATUS INDICATION, SYSTEM INFORMATION UPDATE, RL SETUP, RL ADDITION, SYNCHRONISED RL RECONFIGURATION PREPARATION, SYNCHRONISED RL RECONFIGURATION COMMIT, SYNCHRONISED RL RECONFIGURATION CANCELLATION, UNSYNCHRONISED RL RECONFIGURATION, RL DELETION, DL POWER CONTROL, DEDICATED MEASUREMENT INITIATION, DEDICATED MEASUREMENT REPORTING, DEDICATED MEASUREMENT TERMINATION, DEDICATED MEASUREMENT FAILURE, RL FAILURE, RL RESTORATION, COMPRESSED MODE COMMAND, ERROR INDICATION, PHYSICAL SHARED CHANNEL RECONFIGURATION, RESET, …)	
>>Ddmode	M		ENUMERATED (FDD, TDD, Common, …)	Common = common to FDD and TDD.
>Type of Message	M		ENUMERATED (Initiating Message, Successful Outcome, Unsuccessful Outcome, Outcome)	

9.3.5 Common Definitions

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

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

DEFINITIONS AUTOMATIC TAGS ::=

BEGIN

Criticality     ::= ENUMERATED { reject, ignore, notify }

MessageDiscriminator    ::= ENUMERATED { common, dedicated }

Presence        ::= ENUMERATED { optional, conditional, mandatory }

PrivateIE-ID    ::= CHOICE {
    local               INTEGER (0..65535),
    global              OBJECT IDENTIFIER
}

ProcedureCode   ::= INTEGER (0..255)

ProcedureID     ::= SEQUENCE {
    procedureCode           INTEGER (0..255),
    ddMode                  ENUMERATED { tdd, fdd, common, ... }
}

ProtocolExtensionID ::= INTEGER (0..65535)

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

TransactionID       ::= CHOICE {
    shortTransActionId      INTEGER (0..127),
    longTransActionId       INTEGER (0..32767)
}

TriggeringMessage   ::= ENUMERATED { initiating-message, successful-outcome, unsuccessfull-outcome,
outcome }

END
```

3GPP TSG-RAN WG 3 Meeting #17
Chicago, USA, 20-24 November 2000

Tdoc R3-003220

CR-Form-v3

CHANGE REQUEST

⌘ **TS 25.433 CR 323** ⌘ rev **1** ⌘ Current version: **3.3.0** ⌘

*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:	⌘	Extensibility Correction for DCH Information Response Group IE
Source:	⌘	R-WG3
Work item code:	⌘	***Date:*** ⌘ 21-Nov-00
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)

R-WG3

Reason for change:	⌘	Making extensible the content of *DCH information Response* Group IE within the context of coordinated DCHs.
Summary of change:	⌘	R1: Rewording of the procedure text to avoid confusion *Binding ID* IE and *Transport Layer Address* IE has been made optional within the *DCH Information Response* IE group.
Consequences if not approved:	⌘	The addition of new DCH characteristics to be reported for each RL within an RLS would not be possible, thus impairing the extensibility of the RNSAP protocol.

Clauses affected:	⌘	8.3.2.2, 8.3.5.2, 9.1.37.1, 9.1.37.2, 9.1.38.1, 9.1.40.1, 9.1.40.2, 9.1.41.1, 9.1.43, 9.1.48, 9.3.3
Other specs affected:	⌘	☐ Other core specifications ⌘ ☐ 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.

8.3.2 Synchronised Radio Link Reconfiguration Preparation

8.3.2.1 General

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

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

8.3.2.2 Successful Operation

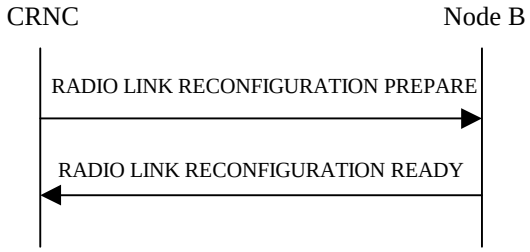

Figure 30: Synchronised Radio Link Reconfiguration procedure, Successful Operation

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

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

DCH Modification:

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

- If the *DCHs to Modify* IE includes the *Retention Priority* IE, the Node B should use this information to prioritise the retention of the resources used by the DCHes in error situation.
- If the *DCHs to Modify* IE includes the *Frame Handling Priority* IE, the Node B should store this information for this DCH in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new configuration has been activated.
- If the *DCHs to Modify* IE includes the *Transport Format Set* IE for the UL of a DCH, the Node B shall apply the new Transport Format Set in the Uplink of this DCH in the new configuration.
- If the *DCHs to Modify* IE includes the *Transport Format Set* IE for the DL of a DCH, the Node B shall apply the new Transport Format Set in the Downlink of this DCH in the new configuration.
- If the *DCHs to Modify* IE includes multiple *DCH Specific Info* IEs then the Node B shall treat the DCHs in the *DCHs to Modify* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- If the *DCHs to Modify* IE includes the *UL FP Mode* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- If the *DCHs to Modify* IE includes the *ToAWS* IE for a DCH or a DCH which belongs to a set of co-ordinated DCHs, the Node B shall apply the new ToAWS in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.

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

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

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

DCH Addition:

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

- The Node B shall reserve necessary resources for the new configuration of the Radio Link(s) according to the parameters given in the message and include these DCHs in the new configuration.

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

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

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

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

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

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

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

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

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

DCH Deletion:

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

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

Physical Channel Modification:

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

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

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

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

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

- [FDD - The Node B shall use the *TFCS* IE for the UL (if present) when reserving resources for the uplink of the new configuration. The Node B shall apply the new TFCS in the Uplink of the new configuration.]

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

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

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

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

- [FDD - The Node B shall use the *TFCS* IE for the DL (if it is present) when reserving resources for the downlink of the new configuration. The Node B shall apply the new TFCS in the Downlink of the new configuration.]

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

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

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

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

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

- [FDD - If the *DL DPCH Information* IE includes the *PDSCH code mapping* IE then the Node B shall apply the defined mapping between TFCI values and PDSCH channelisation codes.]

- [FDD - If the *DL DPCH Information* IE includes the *PDSCH RL ID* IE then the Node B shall infer that the PDSCH for the specified user will be transmitted on the defined radio link.]

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

[TDD - UL/DL CCTrCH Modification]

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

- [TDD - If the IE includes any of *TFCS* IE, *TFCI coding* IE or *Puncture limit* IE the Node B shall apply these as the new values, otherwise the old values specified for this CCTrCH are still applicable.]

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

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

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

[TDD – UL/DL CCTrCH Addition]

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

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

[TDD – UL/DL CCTrCH Deletion]

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

DSCH Addition/Modification/Deletion:

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

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

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

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

[TDD - USCH Addition/Modification/Deletion:]

- [TDD - If the RADIO LINK RECONFIGURATION PREPARE message includes USCH information for the USCHs to be added/modified/deleted then the NodeB shall use this information to add/modify/delete the indicated USCH channels to/from the radio link, in the same way as the DCH info is used to add/modify/release DCHs.

RL Information:

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

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

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

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

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

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

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

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

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

General

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

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

The Node B shall include in the RADIO LINK RECONFIGURATION READY message the Transport Layer Address and the Binding ID of any Transport Channels being added or modified.

In case of a DCH requiring a new transport bearer on Iur, the *Transport Layer Address* IE and the *Binding ID* shall be included in the IE *DCH Information Response* IE group.

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 group shall be included only for one of the DCH in the set of coordinated DCHs.

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

8.3.5 Unsynchronised Radio Link Reconfiguration

8.3.5.1 General

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

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

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

8.3.5.2 Successful Operation

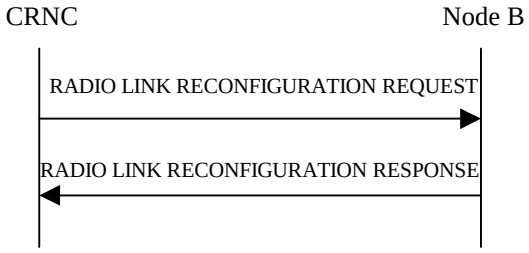

Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation

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

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

DCH Modification:

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

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

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

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

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

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

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

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

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

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

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

DCH Addition:

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

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

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

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

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

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

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

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

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

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

DCH Deletion:

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

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

[FDD - Physical Channel Modification:]

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

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

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

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

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

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

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

- [FDD - If the *DL DPCH Information* IE includes the *PDSCH code mapping* IE then the Node B shall apply the defined mapping between TFCI values and PDSCH channelisation codes.]

- [FDD - If the *DL DPCH Information* IE includes the *PDSCH RL ID* IE then the Node B shall infer that the PDSCH for the specified user will be transmitted on the defined radio link.]

[TDD - UL/DL CCTrCH Modification]

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

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

[TDD – UL/DL CCTrCH Deletion]

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

RL Information:

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

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

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

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

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

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

General

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

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

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

In case of a DCH requiring a new transport bearer on Iur, the *Transport Layer Address* IE and the *Binding ID* shall be included in the IE *DCH Information Response* IE group.

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 group 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 group shall be included only for one of the combined Radio Links~~.~~.

8.3.5.3 Unsuccessful Operation

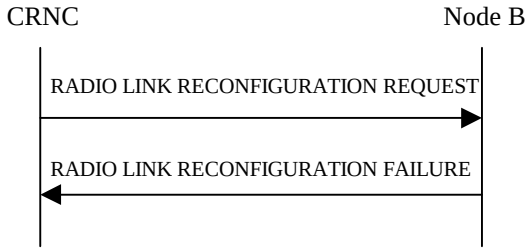

Figure 35: Unsynchronised Radio Link Reconfiguration procedure, Unsuccessful Operation

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.

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

Typical cause values are as follows:

Radio Network Layer Cause

- RL Already Activated/allocated

- Invalid CM Settings

- CM not supported

Transport Layer Cause

- Transport Resources Unavailable

Protocol Cause

- Semantic error

Miscellaneous Cause

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

8.3.5.4 Abnormal Conditions

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

9.1.37 RADIO LINK SETUP RESPONSE

9.1.37.1 FDD message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	ignore
Communication Control Port ID	M		9.2.1.15		YES	ignore
RL Information Response		1 to <maxnoofRLs>			EACH	ignore
>RL ID	M		9.2.1.53		–	
>RL Set ID	M		9.2.2.39			
>RSSI	M		9.2.2.39A		–	
>Diversity Indication	C-NotFirstRL		9.2.2.8		–	
>CHOICE *diversity Indication*						
>>*Combining*					YES	ignore
>>>RL ID	M		9.2.1.53	Reference RL ID for the combining	–	
>>*Non Combining or First RL*					YES	Ignore
>>>DCH Information Response		0 to <maxnoofDCHs>		Only one DCH per set of coordinated DCH shall be included	–	
>>>>DCH ID	M		9.2.1.20		–	
>>>>Binding ID	~~M~~O		9.2.1.4		–	
>>>>Transport Layer Address	~~M~~O		9.2.1.63		–	
>DSCH Information Response		0 to <NumofDSCH>			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>SSDT Support Indicator	M		9.2.2.46		–	
TFCI2 bearer information Response		0..1				
>Binding ID	M		9.2.1.4		-	
>Transport Layer Address	M		9.2.1.63		-	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Condition	Explanation
NotFirstRL	This IE is present only if the RL is not the first one in the RL Information.

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

9.1.37.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	M		9.2.1.48	The reserved value "All NBCC" shall not be used.	YES	ignore
Communication Control Port ID	M		9.2.1.15		YES	ignore
RL Information Response		1			YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Interference per Time Slot		1 .. <maxnoofULts>		Interference Level for each UL time slot within the Radio Link		
>>Time Slot	M		9.2.3.23			
>>UL Timeslot ISCP	M		9.2.3.26A			
>DCH Information Response		1 to <maxnoofDCH>		Only one DCH per set of coordinated DCH shall be included.	GLOBAL	ignore
>>DCH ID	M		9.2.1.20		–	
>>Binding ID	~~M~~O		9.2.1.4		–	
>>Transport Layer Address	~~M~~O		9.2.1.63		–	
>DSCH Information Response		0 .. <Maxnoof DSCHs>			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH Information Response		0 .. <Maxnoof USCHs>			GLOBAL	ignore
>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCH per UE
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUSCHs	Maximum number of USCHs for one UE
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.1.38 RADIO LINK SETUP FAILURE

9.1.38.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
Node B Communication Context ID	C-Success		9.2.1.48	The reserved value "All NBCC" shall not be used	YES	ignore
Communication Control Port ID	O		9.2.1.15		YES	ignore
CHOICE *cause level*						
>General					YES	ignore
>>Cause	M					
>RL specific					YES	ignore
>>Unsuccessful RL Information Response		1 to <maxnoofRLs>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
>>Successful RL Information Response		0 to <maxnoofRLs–1>			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>RL Set ID	M		9.2.2.39			
>>>RSSI	M		9.2.2.39A		–	
>>>Diversity Indication	C-NotFirstRL		9.2.2.8		–	
>>>CHOICE *diversity Indication*					–	
>>>>*Combining*					YES	ignore
>>>>>RL ID	M		9.2.1.53	Reference RL ID for the combining	–	
>>>>*Non Combining or First RL*					YES	ignore
>>>>>DCH Information Response		0 to <maxnoofDCHs>		Only one DCH per set of coordinated DCH shall be included	–	
>>>>>>DCH ID	M		9.2.1.20		–	
>>>>>>Binding ID	~~M~~O		9.2.1.4		–	
>>>>>>Transport Layer Address	~~M~~O		9.2.1.63		–	
>>>DSCH Information Response		0 to <NumofDSCH>			GLOBAL	Ignore
>>>>DSCH ID	M		9.2.1.27		–	
>>>>Binding ID	M		9.2.1.4		–	
>>>>Transport Layer	M		9.2.1.63		–	

Address						
>>>TFCI2 bearer information Response		0..1				
>>>>Binding ID	M		9.2.1.4		-	
>>>>Transport Layer Address	M		9.2.1.63		-	
>>>SSDT Support Indicator	M		9.2.2.46		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

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

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

9.1.40 RADIO LINK ADDITION RESPONSE

9.1.40.1 FDD message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
RL Information Response		1..*<maxnoofRL-1>*			EACH	ignore
>RL ID	M		9.2.1.53		–	
>RL Set ID	M		9.2.2.9			
>RSSI	M		9.2.2.39A		–	
>Diversity Indication	M		9.2.1.26		–	
>CHOICE *diversity indication*					–	
>>*Combining*					YES	ignore
>>>RL ID	M		9.2.1.53	Reference RL	–	
>>*Non combining*					YES	ignore
>>>DCH Information Response		1..*<maxnoofDCHs>*			–	
>>>>DCH ID	M		9.2.1.20		–	
>>>>Binding ID	~~M~~O		9.2.1.4		–	
>>>>Transport Layer Address	~~M~~O		9.2.1.63		–	
>SSDT support indicator	M		9.2.2.46		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs per UE
MaxnoofRL	Maximum number of RLs for one UE

9.1.40.2 TDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
RL Information response		1			YES	ignore
>RL ID	M		9.2.1.53		–	
>UL Interference per Time Slot	M	1 .. <*maxnoofULts*>		Interference Level for each UL time slot within the Radio Link		
>>Time Slot	M		9.2.3.23			
>>UL Timeslot ISCP	M		9.2.3.26A		–	
>Diversity Indication	M		9.2.1.26		–	
>CHOICE *diversity indication*						
>*Combining*				In TDD it indicates whether the old Transport Bearer shall be reused or not	YES	ignore
>>RL ID	M		9.2.1.53	Reference RL	–	
>*Non combining*					YES	ignore
>>DCH Information Response		0..<*maxnoofDCHs*>			–	
>>>DCH ID	M		9.2.1.20		–	
>>>Binding ID	~~M~~O		9.2.1.4		–	
>>>Transport Layer Address	~~M~~O		9.2.1.63		–	
>DSCH Information Response		0 .. <MaxnoofDSCHs			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH Information Response		0 .. <MaxnoofUSCHs			GLOBAL	ignore
>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs per UE
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUDCHs	Maximum number of USCHs for one UE
MaxnoofULts	Maximum number of Uplink time slots per Radio Link

9.1.41 RADIO LINK ADDITION FAILURE

9.1.41.1 FDD Message

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
CHOICE *cause level*						
>General					YES	ignore
>>Cause	M					
>RL specific					YES	ignore
>>Unsuccessful RL Information Response		1..*<maxnoofRL-1>*			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>Cause	M		9.2.1.6		–	
>>Succcessful RL Information Response		1..*<maxnoofRL-2>*			EACH	ignore
>>>RL ID	M		9.2.1.53		–	
>>>RL Set ID	M		9.2.2.39			
>>>RSSI	M		9.2.2.39A		–	
>>>Diversity Indication	M		9.2.2.8		–	
>>>CHOICE *diversity indication*						
>>>>*Combining*					YES	ignore
>>>>>RL ID	M		9.2.1.53	Reference RL	–	
>>>>*Non combining*					YES	Ignore
>>>>>DCH Information Response		1..*<maxnoofDCHs>*			–	
>>>>>>DCH ID	M		9.2.1.20		–	
>>>>>>Binding ID	~~M~~O		9.2.1.4		–	
>>>>>>Transport Layer Address	~~M~~O		9.2.1.63		–	
>>>SSDT support indicator	M		9.2.2.46		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range bound	Explanation
MaxnoofDCHs	Maximum number of DCHs per UE
MaxnoofRL	Maximum number of RLs for one UE

9.1.43 RADIO LINK RECONFIGURATION READY

IE/Group name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
RL Information Response		*0..<maxnoofRLs>*		Only one RL information response group for one group of combined RLs shall be present	EACH	ignore
>RL ID	M		9.2.1.53		–	
>DCH Information Response		*0..<maxnoofDCHs>*		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M		9.2.1.20		–	
>>Binding ID	~~M~~O		9.2.1.4		–	
>>Transport Layer Address	~~M~~O		9.2.1.63		–	
>DSCH Information Response		*0..<MaxnoofDSCHs>*			GLOBAL	ignore
>>DSCH ID	M		9.2.1.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>USCH Information Response		0 .. <Maxnoof USCHs>			GLOBAL	ignore
>>USCH ID	M		9.2.3.27		–	
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
>TFCI2 bearer Information Response		0..1				
>>Binding ID	M		9.2.1.4		–	
>>Transport Layer Address	M		9.2.1.63		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

Range Bound	Explanation
MaxnoofDCHs	Maximum number of DCHs for a UE.
MaxnoofRLs	Maximum number of RLs for a UE.
MaxnoofDSCHs	Maximum number of DSCHs for one UE
MaxnoofUSCHs	Maximum number of USCHs for one UE

9.1.48 RADIO LINK RECONFIGURATION RESPONSE

IE/Group Name	Presence	Range	IE Type and Reference	Semantic Description	Criticality	Assigned Criticality
Message Discriminator	M		9.2.1.45		–	
Message Type	M		9.2.1.46		YES	reject
CRNC Communication Context ID	M		9.2.1.18		YES	ignore
Transaction ID	M		9.2.1.62		–	
RL Information Response		*0..<maxnoofRLs>*		Only one RL information response group for one group of combined RLs shall be present	EACH	ignore
>RL ID	M		9.2.1.53		–	
>DCH Information Response		*0..<maxnoofDCHs>*		Only one DCH per set of co-ordinated DCHs shall be included.	GLOBAL	ignore
>>DCH ID	M		9.2.1.20		–	
>>Binding ID	~~M~~O		9.2.1.4		–	
>>Transport Layer Address	~~M~~O		9.2.1.63		–	
Criticality diagnostics	O		9.2.1.17		YES	ignore

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

9.3.3 PDU Definitions

```
****** Ommited ASN.1 *******

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

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

RadioLinkSetupResponseFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                      CRITICALITY ignore          TYPE  CRNC-CommunicationContextID                 PRESENCE
    mandatory   }|
    { ID    id-NodeB-CommunicationContextID                     CRITICALITY ignore          TYPE  NodeB-CommunicationContextID             PRESENCE
    mandatory   }|
    { ID    id-CommunicationControlPortID                       CRITICALITY ignore          TYPE  CommunicationControlPortID              PRESENCE
    mandatory   }|
    { ID    id-RL-InformationResponseList-RL-SetupRspFDD        CRITICALITY ignore          TYPE  RL-InformationResponseList-RL-SetupRspFDD   PRESENCE
    mandatory   }|
    { ID    id-TFCI2-BearerInformationResponse-RL-SetupRspFDD   CRITICALITY ignore          TYPE  TFCI2-BearerInformationResponse-RL-SetupRspFDD
    PRESENCE    optional    }|
    { ID    id-CriticalityDiagnostics                           CRITICALITY ignore          TYPE  CriticalityDiagnostics                  PRESENCE
    optional    },
    ...
}

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

RL-InformationResponseList-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container{{ RL-InformationResponseItemIE-RL-
SetupRspFDD }}

RL-InformationResponseItemIE-RL-SetupRspFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationResponseItem-RL-SetupRspFDD            CRITICALITY     ignore      TYPE RL-InformationResponseItem-RL-SetupRspFDD
    PRESENCE    mandatory}
}

RL-InformationResponseItem-RL-SetupRspFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    rL-Set-ID                                   RL-Set-ID,
    rSSI                                        RSSI-Value,
    diversityIndication             DiversityIndication-RL-SetupRspFDD,
```

```
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    dSCH-InformationResponseList                    DSCH-InformationResponseList-RL-SetupRspFDD   OPTIONAL,
    sSDT-SupportIndicator                           SSDT-SupportIndicator,
    iE-Extensions                                   ProtocolExtensionContainer { { RL-InformationResponseItem-RL-SetupRspFDD-ExtIEs} }     OPTIONAL,
    ...
}

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

DiversityIndication-RL-SetupRspFDD ::= CHOICE {
    combining                                   Combining-RL-SetupRspFDD,
    nonCombiningOrFirstRL                       NonCombiningOrFirstRL-RL-SetupRspFDD,
    ...
}

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

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

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

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

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

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

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

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

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

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

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

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

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

DSCH-InformationResponseListIE-RL-SetupRspFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem-RL-SetupRspFDD

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

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

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

TFCI2-BearerInformationResponse-RL-SetupRspFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

-- **************************************************************
--
-- RADIO LINK SETUP RESPONSE TDD
--
-- **************************************************************
```

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

RadioLinkSetupResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                      CRITICALITY     ignore          TYPE CRNC-CommunicationContextID
    PRESENCE    mandatory   }|
    { ID    id-NodeB-CommunicationContextID                     CRITICALITY     ignore          TYPE NodeB-CommunicationContextID              PRESENCE
    mandatory   }|
    { ID    id-CommunicationControlPortID                       CRITICALITY     ignore          TYPE    CommunicationControlPortID
    PRESENCE    mandatory   }|
    { ID    id-RL-InformationResponse-RL-SetupRspTDD            CRITICALITY     ignore          TYPE RL-InformationResponse-RL-SetupRspTDD
    PRESENCE    mandatory   }|
    { ID    id-CriticalityDiagnostics                           CRITICALITY     ignore          TYPE CriticalityDiagnostics                    PRESENCE
    optional    },
    ...
}

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

RL-InformationResponse-RL-SetupRspTDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    uL-InterferenceList-RL-SetupRspTDD          UL-InterferenceList-RL-SetupRspTDD,
    dCH-InformationResponseList                 DCH-InformationResponseList-RL-SetupRspTDD,
    dSCH-InformationResponseList                DSCH-InformationResponseList-RL-SetupRspTDD     OPTIONAL,
    uSCH-InformationResponseList                USCH-InformationResponseList-RL-SetupRspTDD     OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RL-InformationResponseList-RL-SetupRspTDD-ExtIEs} }     OPTIONAL,
    ...
}

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

UL-InterferenceList-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfULTSs)) OF UL-InterferenceItem-RL-SetupRspTDD

UL-InterferenceItem-RL-SetupRspTDD ::= SEQUENCE {
    timeSlot                    TimeSlot,
    iSCP                        UL-TimeslotISCP-Value,
    iE-Extensions               ProtocolExtensionContainer { { UL-InterferenceItem-RL-SetupRspTDD-ExtIEs} }    OPTIONAL,
    ...
 }

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

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

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

DCH-InformationResponseListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDCHs)) OF DCH-InformationResponseItem-RL-SetupRspTDD

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

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

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

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

DSCH-InformationResponseListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem-RL-SetupRspTDD

DSCH-InformationResponseItem-RL-SetupRspTDD ::= SEQUENCE {
    dSCH-ID                                 DSCH-ID,
    bindingID                               BindingID,
    transportLayerAddress                   TransportLayerAddress,
    iE-Extensions                           ProtocolExtensionContainer { { DSCH-InformationResponseItem-RL-SetupRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

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

USCH-InformationResponseList-RL-SetupRspTDD ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-SetupRspTDD }}

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

USCH-InformationResponseListIE-RL-SetupRspTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationResponseItem-RL-SetupRspTDD
```

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

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

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

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

RadioLinkSetupFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                                  CRITICALITY     ignore        TYPE  CRNC-CommunicationContextID
                    PRESENCE    mandatory   }|
    { ID    id-NodeB-CommunicationContextID                                 CRITICALITY     ignore        TYPE  NodeB-CommunicationContextID
                PRESENCE    conditional }|
    -- This IE is present if at least one of the radio links has been successfully set up
    { ID    id-CommunicationControlPortID                                   CRITICALITY     ignore        TYPE  CommunicationControlPortID
                PRESENCE    optional    }|
    { ID    id-CauseLevel-RL-SetupFailureFDD                                CRITICALITY     ignore        TYPE  CauseLevel-RL-SetupFailureFDD
    PRESENCE   mandatory    }|
    { ID    id-CriticalityDiagnostics                                       CRITICALITY     ignore        TYPE  CriticalityDiagnostics
                PRESENCE    optional    },
    ...
}

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

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

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

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

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

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

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

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

RLSpecificCauseItem-RL-SetupFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-SetupFailureFDD      Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD,
    successful-RL-InformationRespList-RL-SetupFailureFDD        Successful-RL-InformationRespList-RL-SetupFailureFDD  OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RLSpecificCauseItem-RL-SetupFailureFDD-ExtIEs} }   OPTIONAL,
    ...
}

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

Unsuccessful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs))  OF ProtocolIE-Single-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}

Unsuccessful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD       CRITICALITY     ignore      TYPE  Unsuccessful-RL-InformationRespItem-RL-
SetupFailureFDD     PRESENCE    mandatory}
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    cause                                   Cause,
    iE-Extensions                           ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Unsuccessful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
```

```
}

Successful-RL-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1.. maxNrOfRLs)) OF ProtocolIE-Single-Container {{ Successful-RL-
InformationRespItemIE-RL-SetupFailureFDD }}

Successful-RL-InformationRespItemIE-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Successful-RL-InformationRespItem-RL-SetupFailureFDD         CRITICALITY     ignore      TYPE  Successful-RL-InformationRespItem-RL-
SetupFailureFDD     PRESENCE    mandatory}
}

Successful-RL-InformationRespItem-RL-SetupFailureFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    rL-Set-ID                               RL-Set-ID,
    rSSI                                    RSSI-Value,
    diversityIndication                     DiversityIndication-RL-SetupFailureFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    dSCH-InformationResponseList            DSCH-InformationRespList-RL-SetupFailureFDD     OPTIONAL,
    tFCI2-BearerInformationResponse         TFCI2-BearerInformationResponse-RL-SetupFailureFDD   OPTIONAL,
    sSDT-SupportIndicator                   SSDT-SupportIndicator,
    iE-Extensions                           ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Successful-RL-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-SetupFailureFDD ::= CHOICE {
    combining                               Combining-RL-SetupFailureFDD,
    nonCombiningOrFirstRL                NonCombiningOrFirstRL-RL-SetupFailureFDD,
    ...
}

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

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

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

CombiningItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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

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

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

NonCombiningOrFirstRLItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DCH-InformationRespList-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1.. maxNrOfDCHs)) OF DCH-InformationRespItem-RL-SetupFailureFDD

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

DCH-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DSCH-InformationRespList-RL-SetupFailureFDD ::= ProtocolIE-Single-Container {{ DSCH-InformationRespListIEs-RL-SetupFailureFDD }}

DSCH-InformationRespListIEs-RL-SetupFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID id-DSCH-InformationRespListIE-RL-SetupFailureFDD   CRITICALITY ignore  TYPE DSCH-InformationRespListIE-RL-SetupFailureFDD   PRESENCE mandatory
}
}

DSCH-InformationRespListIE-RL-SetupFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationRespItem-RL-SetupFailureFDD

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

DSCH-InformationRespItem-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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

TFCI2-BearerInformationResponse-RL-SetupFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

****** Ommited ASN.1 *******

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE FDD
--
-- **************************************************************

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

RadioLinkAdditionResponseFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                          CRITICALITY     ignore          TYPE  CRNC-CommunicationContextID
    PRESENCE    mandatory   }|
    { ID    id-RL-InformationResponseList-RL-AdditionRspFDD         CRITICALITY     ignore          TYPE  RL-InformationResponseList-RL-AdditionRspFDD
    PRESENCE    mandatory   }|
    { ID    id-CriticalityDiagnostics                               CRITICALITY     ignore          TYPE  CriticalityDiagnostics
    PRESENCE    optional    },
    ...
}

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

RL-InformationResponseList-RL-AdditionRspFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationResponseItemIE-RL-
AdditionRspFDD }}

RL-InformationResponseItemIE-RL-AdditionRspFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationResponseItem-RL-AdditionRspFDD         CRITICALITY     ignore      TYPE  RL-InformationResponseItem-RL-AdditionRspFDD
    PRESENCE    mandatory}
}

RL-InformationResponseItem-RL-AdditionRspFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    rL-Set-ID                                   RL-Set-ID,
```

```
    rSSI                                        RSSI-Value,
    diversityIndication                         DiversityIndication-RL-AdditionRspFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator                       SSDT-SupportIndicator,
    iE-Extensions                               ProtocolExtensionContainer { { RL-InformationResponseItem-RL-AdditionRspFDD-ExtIEs} }     OPTIONAL,
    ...
}

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

DiversityIndication-RL-AdditionRspFDD ::= CHOICE {
    combining                                   Combining-RL-AdditionRspFDD,
    non-combining                               Non-Combining-RL-AdditionRspFDD,
    ...
}

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

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

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

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

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

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

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

Non-CombiningItem-RL-AdditionRspFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}
```

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

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

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

-- **************************************************************
--
-- RADIO LINK ADDITION RESPONSE TDD
--
-- **************************************************************

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

RadioLinkAdditionResponseTDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                  CRITICALITY ignore          TYPE  CRNC-CommunicationContextID                 PRESENCE
    mandatory   }|
    { ID    id-RL-InformationResponse-RL-AdditionRspTDD     CRITICALITY ignore          TYPE  RL-InformationResponse-RL-AdditionRspTDD    PRESENCE
    mandatory   }|
    { ID    id-CriticalityDiagnostics                       CRITICALITY ignore          TYPE  CriticalityDiagnostics                    PRESENCE
    optional    },
    ...
}

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

RL-InformationResponse-RL-AdditionRspTDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    uL-InterferenceList-RL-AdditionRspTDD       UL-InterferenceList-RL-AdditionRspTDD,
    diversityIndication                     DiversityIndication-RL-AdditionRspTDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    dSCH-InfomationResponseList             DSCH-InformationResponseList-RL-AdditionRspTDD    OPTIONAL,
    uSCH-InfomationResponseList             USCH-InformationResponseList-RL-AdditionRspTDD    OPTIONAL,
    iE-Extensions                           ProtocolExtensionContainer { { RL-InformationResponse-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}
```

```
RL-InformationResponse-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

UL-InterferenceList-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1.. maxNrOfULTSs)) OF UL-InterferenceItem-RL-AdditionRspTDD

UL-InterferenceItem-RL-AdditionRspTDD ::= SEQUENCE {
    timeSlot                        TimeSlot,
    iSCP                            UL-TimeslotISCP-Value,
    iE-Extensions                   ProtocolExtensionContainer { { UL-InterferenceItem-RL-AdditionRspTDD-ExtIEs} }    OPTIONAL,
    ...
}

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

DiversityIndication-RL-AdditionRspTDD ::= CHOICE {
    combining                                   Combining-RL-AdditionRspTDD,
    non-Combining                               Non-Combining-RL-AdditionRspTDD,
    ...
}

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

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

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

CombiningItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Non-Combining-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ Non-CombiningIE-RL-AdditionRspTDD }}

Non-CombiningIE-RL-AdditionRspTDD NBAP-PROTOCOL-IES ::= {
    { ID id-Non-CombiningItem-RL-AdditionRspTDD   CRITICALITY ignore    TYPE Non-CombiningItem-RL-AdditionRspTDD   PRESENCE mandatory }
}

Non-CombiningItem-RL-AdditionRspTDD ::= SEQUENCE {
    dCH-InfomationResponseList                  DCH-InformationResponseList-RL-AdditionRspTDD    OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionRspTDD-ExtIEs} }      OPTIONAL,
    ...
}
```

```
Non-CombiningItem-RL-AdditionRspTDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

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

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

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

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

DSCH-InformationResponseListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfDSCHs)) OF DSCH-InformationResponseItem-RL-AdditionRspTDD

DSCH-InformationResponseItem-RL-AdditionRspTDD ::= SEQUENCE {
    dSCH-ID                             DSCH-ID,
    bindingID                           BindingID,
    transportLayerAddress               TransportLayerAddress,
    iE-Extensions                       ProtocolExtensionContainer { { DSCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs} }      OPTIONAL,
    ...
}

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

USCH-InformationResponseList-RL-AdditionRspTDD ::= ProtocolIE-Single-Container {{ USCH-InformationResponseListIEs-RL-AdditionRspTDD }}

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

USCH-InformationResponseListIE-RL-AdditionRspTDD ::= SEQUENCE (SIZE (1..maxNrOfUSCHs)) OF USCH-InformationResponseItem-RL-AdditionRspTDD

USCH-InformationResponseItem-RL-AdditionRspTDD ::= SEQUENCE {
    uSCH-ID                             USCH-ID,
```

```
    bindingID                           BindingID,
    transportLayerAddress               TransportLayerAddress,
    iE-Extensions                       ProtocolExtensionContainer { { USCH-InformationResponseItem-RL-AdditionRspTDD-ExtIEs} }      OPTIONAL,
    ...
}

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

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

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

RadioLinkAdditionFailureFDD-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID          CRITICALITY     ignore      TYPE    CRNC-CommunicationContextID         PRESENCE mandatory   }|
    { ID    id-CauseLevel-RL-AdditionFailureFDD     CRITICALITY     ignore      TYPE    CauseLevel-RL-AdditionFailureFDD    PRESENCE mandatory   }|
    { ID    id-CriticalityDiagnostics               CRITICALITY     ignore      TYPE    CriticalityDiagnostics              PRESENCE optional    },
    ...
}

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

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

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

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

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

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

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

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

RLSpecificCauseItem-RL-AdditionFailureFDD ::= SEQUENCE {
    unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD       Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD,
    successful-RL-InformationRespList-RL-AdditionFailureFDD         Successful-RL-InformationRespList-RL-AdditionFailureFDD  OPTIONAL,
    iE-Extensions                               ProtocolExtensionContainer { { RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs} }      OPTIONAL,
    ...
}

RLSpecificCauseItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Unsuccessful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE  (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ Unsuccessful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}

Unsuccessful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD        CRITICALITY     ignore     TYPE  Unsuccessful-RL-InformationRespItem-RL-
AdditionFailureFDD  PRESENCE    mandatory}
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                                       RL-ID,
    cause                                       Cause,
    iE-Extensions                               ProtocolExtensionContainer { { Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

Successful-RL-InformationRespList-RL-AdditionFailureFDD ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ Successful-RL-
InformationRespItemIE-RL-AdditionFailureFDD }}

Successful-RL-InformationRespItemIE-RL-AdditionFailureFDD NBAP-PROTOCOL-IES ::= {
    { ID    id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD      CRITICALITY     ignore      TYPE  Successful-RL-InformationRespItem-RL-
AdditionFailureFDD      PRESENCE    mandatory}
}
```

```
Successful-RL-InformationRespItem-RL-AdditionFailureFDD ::= SEQUENCE {
    rL-ID                                   RL-ID,
    rL-Set-ID                               RL-Set-ID,
    rSSI                                    RSSI-Value,
    diversityIndication                     DiversityIndication-RL-AdditionFailureFDD,
    -- This IE represents both the Diversity Indication IE and the choice based on the diversity indication as described in
    -- the tabular message format in subclause 9.1.
    sSDT-SupportIndicator                   SSDT-SupportIndicator,
    iE-Extensions                           ProtocolExtensionContainer { { Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs} }
    OPTIONAL,
    ...
}

Successful-RL-InformationRespItem-RL-AdditionFailureFDD-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

DiversityIndication-RL-AdditionFailureFDD ::= CHOICE {
    combining                   Combining-RL-AdditionFailureFDD,
    non-Combining               Non-Combining-RL-AdditionFailureFDD,
    ...
}

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

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

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

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

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

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

Non-CombiningItem-RL-AdditionFailureFDD ::= SEQUENCE {
    dCH-InformationResponseList                     DCH-InformationResponseList-RL-AdditionFailureFDD,
    iE-Extensions                                   ProtocolExtensionContainer { { Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs} }       OPTIONAL,
    ...
}
```

```
Non-CombiningItem-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

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

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

DCH-InformationResponseList-RL-AdditionFailureFDD-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

****** Ommited ASN.1 *******

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

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

RadioLinkReconfigurationReady-IEs NBAP-PROTOCOL-IES ::= {
    { ID    id-CRNC-CommunicationContextID                      CRITICALITY     ignore      TYPE  CRNC-CommunicationContextID                 PRESENCE
    mandatory   } |
    { ID    id-RL-InformationResponseList-RL-ReconfReady        CRITICALITY     ignore      TYPE  RL-InformationResponseList-RL-ReconfReady   PRESENCE
    optional    } |
    { ID    id-CriticalityDiagnostics                           CRITICALITY     ignore      TYPE  CriticalityDiagnostics                   PRESENCE
    optional    },
    ...
}

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

RL-InformationResponseList-RL-ReconfReady    ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{ RL-InformationResponseItemIE-RL-
ReconfReady}}

RL-InformationResponseItemIE-RL-ReconfReady NBAP-PROTOCOL-IES ::= {
```

```
    { ID    id-RL-InformationResponseItem-RL-ReconfReady           CRITICALITY     ignore       TYPE  RL-InformationResponseItem-RL-ReconfReady
    PRESENCE    mandatory}
}

RL-InformationResponseItem-RL-ReconfReady ::= SEQUENCE {
    rL-ID                                       RL-ID,
    dCH-InformationResponseList-RL-ReconfReady      DCH-InformationResponseList-RL-ReconfReady  OPTIONAL,
    dSCH-InformationResponseList-RL-ReconfReady     DSCH-InformationResponseList-RL-ReconfReady OPTIONAL,
    uSCH-InformationResponseList-RL-ReconfReady     USCH-InformationResponseList-RL-ReconfReady OPTIONAL,
    tFCI2-BearerInformationResponse                 TFCI2-BearerInformationResponse-RL-ReconfReady   OPTIONAL,
    iE-Extensions                                   ProtocolExtensionContainer { { RL-InformationResponseItem-RL-ReconfReady-ExtIEs} }     OPTIONAL,
    ...
}

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

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

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

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

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

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

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

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

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

DSCH-InformationResponseItem-RL-ReconfReady ::= SEQUENCE {
    dSCH-ID                                 DSCH-ID,
    bindingID                               BindingID,
    transportLayerAddress                   TransportLayerAddress,
    iE-Extensions                           ProtocolExtensionContainer { { DSCH-InformationResponseItem-RL-ReconfReady-ExtIEs } }      OPTIONAL,
```

```
    ...
}

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

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

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

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

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

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

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

TFCI2-BearerInformationResponse-RL-ReconfReady-ExtIEs  NBAP-PROTOCOL-EXTENSION ::= {
    ...
}

****** Ommited ASN.1 *******

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

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

```
}

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

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

RL-InformationResponseList-RL-ReconfRsp ::= SEQUENCE (SIZE (1..maxNrOfRLs)) OF ProtocolIE-Single-Container {{RL-InformationResponseItemIE-RL-
ReconfRsp}}

RL-InformationResponseItemIE-RL-ReconfRsp NBAP-PROTOCOL-IES ::= {
    { ID    id-RL-InformationResponseItem-RL-ReconfRsp          CRITICALITY     ignore          TYPE RL-InformationResponseItem-RL-ReconfRsp
    PRESENCE    mandatory}
}

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

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

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


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


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


DCH-InformationResponseItem-RL-ReconfRsp ::= SEQUENCE {
    dCH-ID                                  DCH-ID,
    bindingID                               BindingID OPTIONAL,
    transportLayerAddress                   TransportLayerAddress OPTIONAL,
```

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

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

****** Ommited ASN.1 *******
```