TSGRP#12(01) 0383

TSG-RAN Meeting #12 Stockholm, Sweden, 12 - 15 June 2001

Title: Agreed CRs to TS 25.433

Source: TSG-RAN WG3

Agenda item: 8.3.3/8.3.4

Tdoc_Num	Specification	CR_Num	Revision_Num	CR_Subject	CR_Category	WG_Status	Cur_Ver_Num	New_Ver_Num	Workitem
R3-011864	25.433	389	2	Corrections and introduction of an appendix for usage of Criticality Diagnostics IE	F	agreed	3.5.0	3.6.0	TEI
R3-011865	25.433	390	2	Corrections and introduction of an appendix for usage of Criticality Diagnostics IE	A	agreed	4.0.0	4.1.0	TEI
R3-011329	25.433	391		Reporting of Logical Error with Error Indication Procedure	F	agreed	3.5.0	3.6.0	TEI
R3-011330	25.433	392		Reporting of Logical Error with Error Indication Procedure	A	agreed	4.0.0	4.1.0	TEI
R3-011337	25.433	393		Clarification of IEs order rule	F	agreed	3.5.0	3.6.0	TEI
R3-011338	25.433	394		Clarification of IEs order rule	A	agreed	4.0.0	4.1.0	TEI
R3-011368	25.433	395		Modification of RL-Setup and RL-Addition procedure text	F	agreed	3.5.0	3.6.0	TEI
R3-011369	25.433	396		Modification of RL-Setup and RL-Addition procedure text	A	agreed	4.0.0	4.1.0	TEI
R3-011372	25.433	397		Clarification on Procedure Parallelism for RL Restoration	F	agreed	3.5.0	3.6.0	TEI
R3-011373	25.433	398		Clarification on Procedure Parallelism for RL Restoration	A	agreed	4.0.0	4.1.0	TEI
R3-011767	25.433	399	2	Measurement reporting clarification	F	agreed	3.5.0	3.6.0	TEI
R3-011768	25.433	400	2	Measurement reporting clarification	A	agreed	4.0.0	4.1.0	TEI

R3-011380	25.433	401		Clarification of the CM Configuration Change CFN IE	F	agreed	3.5.0	3.6.0	TEI
R3-011381	25.433	402		Clarification of the CM Configuration Change CFN IE	A	agreed	4.0.0	4.1.0	TEI
R3-011704	25.433	403	1	Clarification of DL Power Applicability	F	agreed	3.5.0	3.6.0	TEI
R3-011705	25.433	404	1	Clarification of DL Power Applicability	A	agreed	4.0.0	4.1.0	TEI
R3-011400	25.433	405		Ambiguity in meaning of DL power IE	F	agreed	3.5.0	3.6.0	TEI
R3-011401	25.433	406		Ambiguity in meaning of DL power IE	A	agreed	4.0.0	4.1.0	TEI
R3-011402	25.433	407		Clarification between ddMode and ALLNBCC measurements	F	agreed	3.5.0	3.6.0	TEI
R3-011403	25.433	408		Clarification between ddMode and ALLNBCC measurements	A	agreed	4.0.0	4.1.0	TEI

3GPP TSG-RAN WG3 Meeting #21 Busan, Korea, May 21st – 25th, 2001

R3-011864

	CHANGE REQUEST	CR-Form-v3
[#] 25.43	3 CR 389 ^{# rev} 2 [#]	Current version: 3.5.0 [#]
For <u>HELP</u> on using	g this form, see bottom of this page or look at th	ne pop-up text over the % symbols.
Proposed change affe	ects: ¥ (U)SIM ME/UE Radio A	ccess Network X Core Network
Title: ೫ C	Corrections and introduction of an appendix for u	usage of Criticality Diagnostics IE
Source: ೫ R	-WG3	
Work item code: ೫ <mark>⊤</mark>	El	<i>Date:</i> ೫ <mark>2001-05-16</mark>
Category: ೫ F		Release: # R99
De be	 A (corresponds to a correction in an earlier releas B (Addition of feature), C (Functional modification of feature) D (Editorial modification) etailed explanations of the above categories can found in 3GPP TR 21.900. 	se) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)
Summary of change: 9	 understood or a missing IE. This needs to be Also the usage of Criticality Diagnostics IE is understand. An informative annex is thus ad Type of Error is added to the <i>Criticality Diag</i> appendix with examples of the usage of <i>Crit</i> Changes since R3 #20: The semantics of the <i>Repetition Numbe</i> and <i>Message Structure</i> IE have been inf. One figure per example have been inclue. One example on "missing IE" has been The <i>Type of Error</i> IE has been added in <i>Diagnostics</i> IE in the <i>Criticality Diagnost</i> multiple causes to the inclusion of the <i>C</i> the main reason for reporting Criticality <i>Cause</i> IE, but the reason may be different main reason my be a missing IE (cause Constructed Message)") but still there is as well (cause="Abstract Syntax Error ((Ignore and Notify)"). The value range for the <i>Repetition Num</i> has been changed from (1256) to (02). 	 be added. needs to be made easier to dded. gnostics IE and an informative iticality Diagnostics IE is also added. er IE in the Criticality Diagnostics IE nproved. uded in the Appendix. included in the reporting of Criticality Diagnostics IE. v Diagnostics can be indicated by the ent for different reported IEs. E.g the performation Element Criticality in the Criticality Diagnostics IE. v Diagnostics can be indicated by the ent for different reported IEs. E.g the performance of the Criticality Diagnostics IE for allow the reported IEs. E.g the performance of the Criticality Diagnostics IE for a not understood IE reported Reject)" or "Abstract Syntax Error aber IE in the Criticality Diagnostics IE 255,). aber IE in the Message Structure IE 256,).
	Repetition Number IE in the Criticality Diagno IE will lead to a non backwards compatible construction of the syntax (decoder) error if this IE is received by	bange, as it e.g. causes an transfer y a node of an version which did not

	implemented this change.
	As an outcome one correction in ASN.1+removal of ellipsis from the repetition number were performed.
Consequences if not approved:	It will not be possible to know what type of error that is reported, making it difficult to take appropriate actions.
	The proposed change is not backwards compatible due to:
	The changes done to the value range for Repetition Number.
	• The introduction of the possibility to report missing IEs, thus making received information ambiguous for a receiver implemented according to Criticality Diagnostics without this possibility.
Clauses affected:	£ 92117 92145A 934 936 and Appendix B (new)

	••••••		• ••	
Other specs	ж 🗙	Other core specifications	ж	25.413 V3.5.0, CR276
		'		25.413 V4.0.0. CR277
				25,419 V3,4.0, CR035
				25 419 V4 0 0 CR036
				25.423 V3.5.0 CR340
				20.420 00.0.0, 01040
				25.423 V4.0.0, CR341
				25.433 V4.0.0, CR390
affected:		Test specifications		
		O&M Specifications		
Other comments:	ж			

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.

9.2.1.17 Criticality Diagnostics

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

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

Procedure ID 0.1 Procedure ID is to be used in Critically Diagnostics is part of Indication procedure, and not within the response message of the same procedure that caused the error >Procedure Code M INTEGER Common test caused the error >Ddmode M ENUMERAT ED (PDD, TDD, Common) Common e common to FDC and TDD. TDD, Common) Triggering Message O ENUMERAT ED (FIRE) The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication. Procedure Criticality O ENUMERAT ED (FIRE) This Procedure Criticality is used for reporting the Criticality Diagnostics is part of Error indication. Procedure Criticality O Transaction ID O Transaction ID Information Element O to <maxnoof errors=""> The IC Criticality is used for reporting the criticality of the Criticality</maxnoof>	IE/Group Name	Presence	Range	IE type and reference	Semantics description
>Procedure Code M INTEGER (0.255) >Ddmode M ENUMERAT ED (FPD, TDD, Common) Common = common to FDE and TDD. Triggering Message O ENUMERAT ED (right) unsuccessful outcome, unsuccessful outcome, dottome The Triggering Message is biggostics is part of Error indication. Procedure Criticality O ENUMERAT ED(reject, ignore, outcome) This Procedure Criticality is used for reporting the criticality of the Triggering message (Procedure). The value Tigner message Transaction ID O Transaction ID 9.2.1.62 The IE Criticality is used for errors> >Information Element Criticality Diagnostics 0 to <maxnoof errors> The IE Criticality is used for triggering the criticality of the ring shall never be used. >IE ID M INTEGER (04.2558) The IE Criticality is used for reporting the criticality of the not understood of runsing IE uses >Repetition Number O Interset (04.2558) The Repetition Number IE gives >In case of a not understood or runsing IE uses and motion understood Criticality and the not understood Criticality above them. The reportied must have the same toadoo heirachical message structure IE. with assigned criticality above them. The orgenitien number of dominesting accurrences of the reportien in cudentified by above them. The orgenitien number of dominesting accurrences of the reportien in cudenting themust message actincharity of themiter accurrences of</maxnoof 	Procedure ID		01		Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error
>Ddmode M ENUMERAT ED (FPD, TDD, Common) Common to FDE and TDD. Triggering Message 0 ENUMERAT ED(initiating unscessful outcome, unscessful outcome,	>Procedure Code	М		INTEGER (0255)	
Triggering Message O ENUMERAT ED(initiating message, successful outcome, unsuccessful outcome, out	>Ddmode	М		ÈNUMÉRAT ED (FDD, TDD, Common)	Common = common to FDD and TDD.
Procedure Criticality O ENUMERAT ED(reject, ignore, notify) This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure). The value 'ignore shall never be used. Transaction ID O Transaction ID	Triggering Message	0		ENUMERAT ED(initiating message, successful outcome, unsuccessful outcome, outcome)	The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication.
Transaction ID 0 Transaction ID Information Element Criticality Diagnostics 0 to <maxnoof errors=""> ENUMERAT ED(reject, ignore, notify) The IE Criticality is used for reporting the criticality of the triggering IE. The value notify ignore, shall never be used. >IE ID M INTEGER (0.65535) The IE D of the not understood or missing IE. >Repetition Number 0 INTEGER (0.4.2556) The Repetition Number IE gives or in case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence. • in case of a missing IE: The number of occurrences of the reported IE up to and including the not understood occurrence. Note: All the counted occurrence. Note: All the counted occurrence. Note: All the counted occurrence. Note: All the counted occurrence. IE swith assigned criticalit above them. The repetition nevel identified by mees of the net our derstood IE.</maxnoof>	Procedure Criticality	0		ENUMERAT ED(reject, ignore, notify)	This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure). The value 'ignore' shall never be used.
Information Element Criticality Diagnostics 0 to <maxnoof errors> ENUMERAT ED(reject, ignore, notify) The IE Criticality is used for reporting the criticality of the triggering IE. The value ingnore's and never be used. >ID M INTEGER (0.65535) The IE D of the not understood or missing IE gives >Repetition Number O INTEGER (042556) The Repetition Number IE gives In case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence In case of a mot understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence occurrences of the reported occurrences of the reported understood occurrence In case of a missing IE: The number of occurrences of the reported IE up to and including the not understood occurrence occurrences of the reported must have the same topdow number of the net understood occurrences of the reported must have the same topdow number of the net understood occurrences of the reported must have the missing IE: The number of occurrences of the reported must have the same topdow number of the net understood IE with assigned criticalit above them. The repetition number of the net understood IE with assigned criticalit above them. The repetition number of the net understood IE with assigned criticalit above them. The repetition number of the net understood IE with assigned criticalit above them. The repetition number of the net understood IE with net bottom most repetition level identified by</maxnoof 	Transaction ID	0		Transaction ID 9.2.1.62	
>IE Criticality M ENUMERAT ED(reject, ignore, notify) The IE Criticality is used for reporting the criticality of the triggering IE. The value indify) >IE ID M INTEGER (0.65535) The IE ID of the not understood or missing IE gives >Repetition Number O INTEGER (042556) The <i>Repetition Number</i> IE gives • in case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence • in case of a missing IE: The number of occurrences of the reported IE up to and including the not understood occurrence • in case of a missing IE: The number of occurrences of the reported including the not understood occurrence • in case of a missing IE: The number of occurrences up to but n including the missing occurrences. Note: All the counted occurrences of the reported must have the same topdow hierachical message structu of IEs with assigned criticaliti above them. The repetition number of the not understoo IE within the bottom most repotition level identified by	Information Element Criticality Diagnostics		0 to <maxnoof errors></maxnoof 		
>IE ID M INTEGER (065535) The IE ID of the not understood or missing IE >Repetition Number O INTEGER (042556) The Repetition Number IE gives • in case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence • in case of a missing IE: The number of occurrences up to but n including the missing occurrence. • in case of a missing IE: The number of occurrences up to but n including the missing occurrence. Note: All the counted occurrences of the reported must have the same topdow hierachical message structu of IEs with assigned criticalli above them. The repetition number of the not understool IE within the bottom most repetition level identified by message structure IE if	>IE Criticality	М		ENUMERAT ED(reject, ignore, notify)	The IE Criticality is used for reporting the criticality of the triggering IE. The value 'ignore' shall never be used.
>Repetition Number 0 INTEGER (042556) The Repetition Number IE gives • in case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence • in case of a missing IE: The number of occurrences up to but n including the missing occurrence. • in case of a missing IE: The number of occurrences up to but n including the missing occurrence. • Note: All the counted occurrences of the reported must have the same topdow hierachical message structur of IEs with assigned criticali above them. The repetition number of the not understoo IE within the bottom moet repetition level-identified by message structure IE. if	>IE ID	М		INTEGER (065535)	The IE ID of the not understood or missing IE
Including the missing occurrence. Note: All the counted occurrences of the reported must have the same topdow hierachical message structur of IEs with assigned criticalit above them. The repetition number of the not understood IE within the bottom most repetition level identified by message structure IE. if				(<u>0</u> 425 <u>5</u> 6)	 <u>in case of a not</u> <u>understood IE:</u> <u>The number of</u> <u>occurrences of the</u> <u>reported IE up to and</u> <u>including the not</u> <u>understood occurrence</u> <u>in case of a missing IE:</u> <u>The number of</u> <u>occurrences up to but not</u> <u>including the missing</u>
Applicable Applicable Applicable Applicable Applicable Applicable	►Massage Structure	0		9.21.454	<u>Note: All the counted</u> <u>occurrence.</u> <u>Note: All the counted</u> <u>occurrences of the reported IE</u> <u>must have the same topdown</u> <u>hierachical message structure</u> <u>of IEs with assigned criticality</u> <u>above them. The repetition</u> <u>number of the not understood</u> <u>IE within the bottom most</u> <u>repetition level identified by the</u> <u>message structure IE, if</u> <u>applicable</u> <u>The Message Structure IE</u>

			describes the structure where the not understood or missing IE was detected. This IE is included if the not understood IE is not the top level of the message.
>Type of Error	M	ENUMERAT ED(not understood, missing,)	

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

9.2.1.45A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierachical message structure from top level down to the lowest level above the reported level for the occured error (reported in the *Information Element Criticality Diagnostics* IE).

Ī	IE/Group Name	Presence	Range	IE type	Semantics	Criticality	Assigned
				and	description		Criticality
.[reference			
	Message		1 to		The first repetition of	GLOBAL	ignore
	structure		<maxnoofle< th=""><th></th><th>the Message</th><th></th><th></th></maxnoofle<>		the Message		
			vels>		Structure IE		
					corresponds to the		
					top level of the		
					message. The last		
					repetition of the		
					Message Structure		
					the level above the		
					reported level for the		
					occured error of the		
					message Informatio		
					n given per level		
					with assigned		
					criticality in an		
					hierachical message		
					structure. Given		
					from top level down		
					to the level above		
					the reported level for		
					the occured error		
					(reported in the		
					Information Element		
					Diagnostics IE)		
١		N/			The IE ID of this	_	
		101		(0, 65535)	level's IF containing	-	
				(000000)	the not understood		
					or missing IE.		
I	>Repetition	0		INTEGER	The Repetition	-	
	Number			(1256)	Number IE gives, if		
					applicable, the		
					number of		
					occurrences of this		
					level's reported IE		
					up to and including		
					containing the not		
					understood or		
					missing IF		
					<u></u>		
					Note: All the counted		
					occurrences of the		
$\ $					reported IE must		
					have the same		
$\ $					topdown hierachical		
					message structure		
					of IEs with assigned		
					them The repetition		
					unem. the repetition		
					Involis reported IF if		
					annlicable		
۱L		L	1	1	appiloubio		

Range bound	Explanation
maxnooflevels	Maximum no. of message levels to report. The value for
	maxnooflevels is 256.

9.3.4 l	nformation Elements Definitions
********	*******
 Informatio	on Element Definitions
 *********	***************************************
NBAP-IEs { itu-t (0) ide umts-Access (entified-organization (4) etsi (0) mobileDomain (0) 20) modules (3) nbap (2) versionl (1) nbap-IEs (2) }
DEFINITIONS A BEGIN	UTOMATIC TAGS ::=
IMPORTS maxNrOfTF maxNrOfFr maxCTFC, maxNrOfTF maxTTI-co maxRateMa maxCodeNr maxNrOfCF maxNrOfTF maxNrOfTF maxNrOfTF maxNrOfTF maxNrOfTF maxNrOfTF maxNrOfSF maxTGPS, maxNrOfUL maxNrOfDD maxNrOfDS maxNrOfDS maxNrOfDS maxNrOfDS maxNrOfDC maxNrOfDC maxNrOfDC	<pre>'Cs, rors, 's, punt, tching, 'comp-1, deGroups, 'CIGroups, 'CIGroups, 'CIICombs, 'CI2Combs, 'CI2Combs, 'CI2Combs-1, ', ''</pre>
id-Messag <u>id-TypeOf</u> FROM NBAP-Con	eStructure <u>,</u> <u>Error</u> Istants
Criticali Procedure ProtocolI Transacti Triggerin FROM NBAP-Com NBAP-PROT	ty, ID, IE-ID, IonID, IgMessage monDataTypes

```
Release 1999
```

```
ProtocolExtensionContainer{},
   ProtocolIE-Single-Container{},
   NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers;
__ A
Acknowledged-PCPCH-access-preambles ::= INTEGER (0..15,...)
Acknowledged-PRACH-preambles-Value ::= INTEGER(0..240,...)
-- The number of L1 acknowledged random access tries per every 20 ms period.
AddorDeleteIndicator ::= ENUMERATED {
   add,
   delete
Active-Pattern-Sequence-Information ::= SEQUENCE {
   cMConfigurationChangeCFN
                                                        CFN,
   transmission-Gap-Pattern-Sequence-Status
                                             Transmission-Gap-Pattern-Sequence-Status-List OPTIONAL,
   iE-Extensions
                                             ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
   . . .
Active-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   . . .
}
Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
   SEQUENCE {
       tGPSID
                      TGPSID,
       tGPRC
                      TGPRC,
       t.GCFN
                      CFN,
       iE-Extensions
                          ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
       . . .
Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   . . .
}
AICH-Power ::= INTEGER (-22..5)
-- Offset in dB.
AICH-TransmissionTiming ::= ENUMERATED {
```

```
v0,
   v1
1
AllocationRetentionPriority ::= SEQUENCE {
   priorityLevel
                             PriorityLevel,
   pre-emptionCapability
                             Pre-emptionCapability,
   pre-emptionVulnerability
                             Pre-emptionVulnerability,
   iE-Extensions
                             ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
   . . .
}
AllocationRetentionPriority-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
APPreambleSignature ::= INTEGER (0..15)
APSubChannelNumber ::= INTEGER (0..11)
AvailabilityStatus ::= ENUMERATED {
   empty,
   in-test,
   failed,
   power-off,
   off-line,
   off-duty,
   dependency,
   degraded,
   not-installed,
   log-full,
    . . .
-- B
BCCH-ModificationTime ::= INTEGER (0..511)
-- Time = BCCH-ModificationTime * 8
-- Range 0 to 4088, step 8
-- All SFN values in which MIB may be mapped are allowed
BindingID ::= OCTET STRING (SIZE (1..4, ...))
BetaCD ::= INTEGER (0..15)
BlockingPriorityIndicator ::= ENUMERATED {
   high,
   normal,
   low,
    . . .
```

Release 1999

-- High priority: Block resource immediately.

-- Normal priority: Block resource when idle or upon timer expiry. -- Low priority: Block resource when idle. BlockSTTD-Indicator ::= ENUMERATED { active, inactive ___ C Cause ::= CHOICE { radioNetwork CauseRadioNetwork, transport CauseTransport, CauseProtocol, protocol CauseMisc, misc . . . CauseMisc ::= ENUMERATED { control-processing-overload, hardware-failure. oam-intervention, not-enough-user-plane-processing-resources, unspecified, . . . CauseProtocol ::= ENUMERATED { transfer-syntax-error, abstract-syntax-error-reject, abstract-syntax-error-ignore-and-notify, message-not-compatible-with-receiver-state, semantic-error, unspecified, abstract-syntax-error-falsely-constructed-message, . . . CauseRadioNetwork ::= ENUMERATED { unknown-C-ID, cell-not-available, power-level-not-supported, dl-radio-resources-not-available, ul-radio-resources-not-available, rl-already-ActivatedOrAlocated, nodeB-Resources-unavailable, measurement-not-supported-for-the-object, combining-resources-not-available, requested-configuration-not-supported, synchronisation-failure,

l

unspecified,

priority-transport-channel-established, sIB-Origination-in-Node-B-not-Supported, requested-tx-diversity-mode-not-supported, bCCH-scheduling-error, measurement-temporarily-not-available, invalid-CM-settings, reconfiguration-CFN-not-elapsed,

number-of-DL-codes-not-supported, s-cipch-not-supported, combining-not-supported, ul-sf-not-supported, dl-SF-not-supported, common-transport-channel-type-not-supported, dedicated-transport-channel-type-not-supported, downlink-shared-channel-type-not-supported, uplink-shared-channel-type-not-supported, cm-not-supported, tx-diversity-no-longer-supported, unknown-Local-Cell-ID, . . . , number-of-UL-codes-not-supported CauseTransport ::= ENUMERATED { transport-resource-unavailable, unspecified, . . . CCTrCH-ID ::= INTEGER (0..15) CDSubChannelNumbers ::= BIT STRING (SIZE (12)) CellParameterID ::= INTEGER (0..127,...) CFN ::= INTEGER (0..255) Channel-Assignment-Indication ::= ENUMERATED { cA-Active, cA-Inactive ChipOffset ::= INTEGER (0..38399) -- Unit Chip C-ID ::= INTEGER (0..65535) Closedlooptimingadjustmentmode ::= ENUMERATED { adj-1-slot, adj-2-slot, . . .

```
CommonChannelsCapacityConsumptionLaw ::= SEOUENCE (SIZE(1..maxNrOfSF)) OF
    SEQUENCE {
        dl-Cost
                    INTEGER (0..65535),
        ul-Cost
                    INTEGER (0..65535),
                            ProtocolExtensionContainer { { CommonChannelsCapacityConsumptionLaw-ExtIEs } }
        iE-Extensions
                                                                                                                OPTIONAL,
    . . .
CommonChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
CommonMeasurementType ::= ENUMERATED
    received-total-wide-band-power,
    transmitted-carrier-power,
    acknowledged-prach-preambles,
    ul-timeslot-iscp,
    acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles,
    . . .
CommonMeasurementValue ::= CHOICE {
                                             Transmitted-Carrier-Power-Value,
    transmitted-carrier-power
    received-total-wide-band-power
                                             Received-total-wide-band-power-Value,
    acknowledged-prach-preambles
                                             Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP
                                             UL-TimeslotISCP-Value,
    acknowledged-PCPCH-access-preambles
                                             Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles
                                             Detected-PCPCH-access-preambles,
    . . .
CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable
                                CommonMeasurementAvailable,
    measurementnotAvailable
                                CommonMeasurementnotAvailable
CommonMeasurementAvailable::= SEQUENCE {
    commonmeasurementValue
                                CommonMeasurementValue,
                                     ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs} }
    ie-Extensions
                                                                                                                   OPTIONAL,
    . . .
CommonMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
CommonMeasurementnotAvailable ::= NULL
```

```
CommonPhysicalChannelID ::= INTEGER (0..255)
Common-PhysicalChannel-Status-Information ::= SEQUENCE {
    commonPhysicalChannelID
                                    CommonPhysicalChannelID,
    resourceOperationalState
                                        ResourceOperationalState,
    availabilityStatus
                                        AvailabilityStatus,
    iE-Extensions
                                        ProtocolExtensionContainer { { Common-PhysicalChannel-Status-Information-ExtIEs } }
                                                                                                                                  OPTIONAL,
    . . .
Common-PhysicalChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
CommonTransportChannelID ::= INTEGER (0..255)
Common-TransportChannel-Status-Information ::= SEQUENCE {
    commonTransportChannelID
                                        CommonTransportChannelID,
    resourceOperationalState
                                        ResourceOperationalState,
    availabilityStatus
                                        AvailabilityStatus,
    iE-Extensions
                                        ProtocolExtensionContainer
                                                                     { { Common-TransportChannel-Status-Information-ExtIEs } }
                                                                                                                                 OPTIONAL,
    . . .
Common-TransportChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
CommunicationControlPortID ::= INTEGER (0..65535)
Compressed-Mode-Deactivation-Flag: = ENUMERATED {
    deactivate,
    maintain-Active
-- on=deactivate
ConfigurationGenerationID ::= INTEGER (0..255)
-- Value '0' means "No configuration"
ConstantValue ::= INTEGER (-10..10,...)
-- -10 dB - +10 dB
-- unit dB
-- step 1 dB
CPCH-Allowed-Total-Rate ::= ENUMERATED {
   v15,
    v30,
    v60,
    v120,
    v240,
```

v480, v960.

```
v1920.
    v2880,
    v3840,
    v4800,
    v5760,
    . . .
CPCHScramblingCodeNumber ::= INTEGER (0..79)
CPCH-UL-DPCCH-SlotFormat ::= INTEGER (0..2,...)
CriticalityDiagnostics ::= SEQUENCE {
    procedureID
                                ProcedureID
                                                         OPTIONAL,
                                TriggeringMessage
    triggeringMessage
                                                             OPTIONAL,
    procedureCriticality
                                Criticality
                                                         OPTIONAL,
    transactionID
                                TransactionID
                                                             OPTIONAL,
    iEsCriticalityDiagnostics
                                CriticalityDiagnostics-IE-List OPTIONAL,
    iE-Extensions
                                ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} }
                                                                                                    OPTIONAL,
    . . .
CriticalityDiagnostics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF
    SEQUENCE {
        iECriticality
                            Criticality,
        iE-ID
                            ProtocolIE-ID,
        repetitionNumber
                            RepetitionNumber0
                                                     OPTIONAL,
                            ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} }
        iE-Extensions
                                                                                                          OPTIONAL,
        . . .
CriticalityDiagnostics-IE-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
        ID id-MessageStructure
                                    CRITICALITY ignore
                                                             EXTENSION MessageStructure
                                                                                              PRESENCE optional } | -
        ID id-TypeOfError
                                    CRITICALITY ignore
                                                             EXTENSION TypeOfError
                                                                                              PRESENCE mandatory },
    . . .
MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF
    SEQUENCE {
        iE-ID
                                ProtocolIE-ID,
        repetitionNumber
                                RepetitionNumber1
                                                         OPTIONAL,
        iE-Extensions
                                ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL,
        . . .
```

MessageStructure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {

} ...

**** LOTS OF UNAFFECTED ASN.1 DESCRIPTION FROM SECTION 9.3.4 NOT SHOWN ****

RepetitionPeriod ::= ENUMERATED {
v1,
v2,
v4,
v8,
V16,
V32,
V04,
}
RepetitionNumber $0 ::= INTEGER (012556)$

RepetitionNumber1 ::= INTEGER (1..256)

**** LOTS OF UNAFFECTED ASN.1 DESCRIPTION FROM SECTION 9.3.4 NOT SHOWN ****

TSTD-Indicator ::= ENUMERATED { active, inactive }
TypeOfError ::= ENUMERATED {
U

**** LOTS OF UNAFFECTED ASN.1 DESCRIPTION FROM SECTION 9.3.4 NOT SHOWN ****

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

IMPORTS ProcedureCode, ProtocolIE-ID

FROM NBAP-CommonDataTypes;

************************************	*****		
Elementary Procedures			
************************************	* * * * * * * * * *		
id-audit	ProcedureCode	::=	0
id-auditRequired	ProcedureCode	::=	1
id-blockResource	ProcedureCode	::=	2
id-cellDeletion	ProcedureCode	::=	3
id-cellReconfiguration	ProcedureCode	::=	4
id-cellSetup	ProcedureCode	::=	5
id-commonMeasurementFailure	ProcedureCode	::=	6
id-commonMeasurementInitiation	ProcedureCode	::=	7
id-commonMeasurementReport	ProcedureCode	::=	8
id-commonMeasurementTermination	ProcedureCode	::=	9
id-commonTransportChannelDelete	ProcedureCode	::=	10
id-commonTransportChannelReconfigure	ProcedureCode	::=	11
id-commonTransportChannelSetup	ProcedureCode	::=	12
id-compressedModeCommand	ProcedureCode	::=	14
id-dedicatedMeasurementFailure	ProcedureCode	::=	16
id-dedicatedMeasurementInitiation	ProcedureCode	::=	17
id-dedicatedMeasurementReport	ProcedureCode	::=	18
id-dedicatedMeasurementTermination	ProcedureCode	::=	19
id-downlinkPowerControl	ProcedureCode	::=	20
id-downlinkPowerTimeslotControl	ProcedureCode	::=	38
id-errorIndicationForCommon	ProcedureCode	::=	35
id-errorIndicationForDedicated	ProcedureCode	::=	21
id-physicalSharedChannelReconfiguration	ProcedureCode	::=	37
id-privateMessageForCommon	ProcedureCode	::=	36

id-privateMessageForDedicated	ProcedureCode	::=	22
id-radioLinkAddition	ProcedureCode	::=	23
id-radioLinkDeletion	ProcedureCode	::=	24
id-radioLinkFailure	ProcedureCode	::=	25
id-radioLinkPreemption	ProcedureCode	::=	39
id-radioLinkRestoration	ProcedureCode	::=	26
id-radioLinkSetup	ProcedureCode	::=	27
id-reset	ProcedureCode	::=	13
id-resourceStatusIndication	ProcedureCode	::=	28
id-synchronisedRadioLinkReconfigurationCancellation	ProcedureCode	::=	29
id-synchronisedRadioLinkReconfigurationCommit	ProcedureCode	::=	30
id-synchronisedRadioLinkReconfigurationPreparation	ProcedureCode	::=	31
id-systemInformationUpdate	ProcedureCode	::=	32
id-unblockResource	ProcedureCode	::=	33
id-unSynchronisedRadioLinkReconfiguration	ProcedureCode	::=	34

_ _

-- Lists

maxNrOfCodes	TNTEGER	::=	10
maxNrOfDLTSs	INTEGER	::=	15
maxNrOfDLCodes	INTEGER	::=	8
maxNrOfErrors	INTEGER	::=	256
maxNrOfTEs	INTEGER	::=	32
maxNrOfTECs	INTEGER	::=	1024
maxNrOfRLs	INTEGER	::=	16
maxNrOfRLs-1	INTEGER	::=	15 maxNrOfRLs - 1
maxNrOfRLs-2	INTEGER	::=	14 maxNrOfRLs - 2
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	::=	maxNrOfCPCHs
maxCTFC	INTEGER	::=	16777215
maxLocalCellinNodeB	INTEGER	::=	maxCellinNodeB

Release 1999

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
maxNrOfLevels	INTEGER	::=	256

```
___
```

-- IEs --

id-AICH-Information	ProtocolIE-ID ::= 0
id-AICH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 1
id-BCH-Information	ProtocolIE-ID ::= 7
id-BCH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 8
id-BCCH-ModificationTime	ProtocolIE-ID ::= 9
id-BlockingPriorityIndicator	ProtocolIE-ID ::= 10
id-Cause	ProtocolIE-ID ::= 13
id-CCP-InformationItem-AuditRsp	ProtocolIE-ID ::= 14
id-CCP-InformationList-AuditRsp	ProtocolIE-ID ::= 15
id-CCP-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 16
id-Cell-InformationItem-AuditRsp	ProtocolIE-ID ::= 17
id-Cell-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 18
id-Cell-InformationList-AuditRsp	ProtocolIE-ID ::= 19
id-CellParameterID	ProtocolIE-ID ::= 23
id-CFN	ProtocolIE-ID ::= 24
id-C-ID	ProtocolIE-ID ::= 25
id-CommonMeasurementObjectType-CM-Rprt	ProtocolIE-ID ::= 31
id-CommonMeasurementObjectType-CM-Rqst	ProtocolIE-ID ::= 32
id-CommonMeasurementObjectType-CM-Rsp	ProtocolIE-ID ::= 33
id-CommonMeasurementType	ProtocolIE-ID ::= 34
id-CommonPhysicalChannelID	ProtocolIE-ID ::= 35
id-CommonPhysicalChannelType-CTCH-SetupRqstFDD	ProtocolIE-ID ::= 36
id-CommonPhysicalChannelType-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 37
id-CommunicationControlPortID	ProtocolIE-ID ::= 40
id-ConfigurationGenerationID	ProtocolIE-ID ::= 43

id-CRNC-CommunicationContextID ProtocolIE-ID ::= 44 id-CriticalityDiagnostics ProtocolTE-TD := 45id-DCHs-to-Add-FDD ProtocolIE-ID ::= 48 id-DCH-AddList-RL-ReconfPrepTDD ProtocolIE-ID ::= 49 id-DCHs-to-Add-TDD ProtocolTE-TD := 50id-DCH-DeleteList-RL-ReconfPrepFDD ProtocolIE-ID ::= 52 id-DCH-DeleteList-RL-ReconfPrepTDD ProtocolIE-ID ::= 53 id-DCH-DeleteList-RL-ReconfRgstFDD ProtocolIE-ID ::= 54 id-DCH-DeleteList-RL-ReconfRgstTDD ProtocolTE-TD := 55id-DCH-FDD-Information ProtocolIE-ID ::= 56 id-DCH-TDD-Information ProtocolIE-ID ::= 57 id-DCH-InformationResponse ProtocolIE-ID ::= 59 id-FDD-DCHs-to-Modify ProtocolIE-ID ::= 62 id-TDD-DCHs-to-Modify ProtocolIE-ID ::= 63 id-DCH-ModifyList-RL-ReconfRqstTDD ProtocolIE-ID ::= 65 id-DedicatedMeasurementObjectType-DM-Rprt ProtocolIE-ID ::= 67 id-DedicatedMeasurementObjectType-DM-Rgst ProtocolIE-ID ::= 68 id-DedicatedMeasurementObjectType-DM-Rsp ProtocolIE-ID ::= 69 id-DedicatedMeasurementType ProtocolIE-ID ::= 70 id-DL-CCTrCH-InformationItem-RL-SetupRqstTDD ProtocolIE-ID ::= 72 id-DL-CCTrCH-InformationList-RL-AdditionRqstTDD ProtocolIE-ID ::= 73 id-DL-CCTrCH-InformationList-RL-SetupRgstTDD ProtocolIE-ID ::= 76 id-DL-DPCH-InformationItem-RL-AdditionRqstTDD ProtocolIE-ID ::= 77 id-DL-DPCH-InformationList-RL-SetupRgstTDD ProtocolIE-ID ::= 79 id-DL-DPCH-Information-RL-ReconfPrepFDD ProtocolIE-ID ::= 81 id-DL-DPCH-Information-RL-ReconfRqstFDD ProtocolIE-ID ::= 82 id-DL-DPCH-Information-RL-SetupRqstFDD ProtocolIE-ID ::= 83 id-DL-ReferencePowerInformationItem-DL-PC-Rgst ProtocolIE-ID ::= 84 id-DLReferencePower ProtocolIE-ID ::= 85 id-DLReferencePowerList-DL-PC-Rgst ProtocolIE-ID ::= 86 id-DSCH-AddItem-RL-ReconfPrepFDD ProtocolIE-ID ::= 87 id-DSCHs-to-Add-FDD ProtocolIE-ID ::= 89 id-DSCH-DeleteItem-RL-ReconfPrepFDD ProtocolIE-ID ::= 91 id-DSCH-DeleteList-RL-ReconfPrepFDD ProtocolIE-ID ::= 93 id-DSCHs-to-Add-TDD ProtocolIE-ID ::= 96 id-DSCH-Information-DeleteList-RL-ReconfPrepTDD ProtocolIE-ID ::= 98 id-DSCH-Information-ModifyList-RL-ReconfPrepTDD ProtocolIE-ID ::= 100 id-DSCH-InformationResponse ProtocolIE-ID ::= 105 id-DSCH-FDD-Information ProtocolIE-ID ::= 106 id-DSCH-TDD-Information ProtocolIE-ID ::= 107 id-DSCH-ModifyItem-RL-ReconfPrepFDD ProtocolIE-ID ::= 108 id-DSCH-ModifyList-RL-ReconfPrepFDD ProtocolTE-TD ::= 112 id-End-Of-Audit-Sequence-Indicator ProtocolIE-ID ::= 113 id-FACH-Information ProtocolIE-ID ::= 116 id-FACH-InformationItem-ResourceStatusInd ProtocolIE-ID ::= 117 id-FACH-ParametersList-CTCH-ReconfRqstTDD ProtocolIE-ID ::= 120 id-FACH-ParametersListIE-CTCH-SetupRgstFDD ProtocolIE-ID ::= 121 id-FACH-ParametersListIE-CTCH-SetupRqstTDD ProtocolIE-ID ::= 122 id-IndicationType-ResourceStatusInd ProtocolIE-ID ::= 123 id-Local-Cell-ID ProtocolIE-ID ::= 124 id-Local-Cell-Group-InformationItem-AuditRsp ProtocolIE-ID ::= 2 id-Local-Cell-Group-InformationItem-ResourceStatusInd ProtocolIE-ID ::= 3 id-Local-Cell-Group-InformationItem2-ResourceStatusInd ProtocolIE-ID ::= 4

Release 1999

id-Local-Cell-Group-InformationList-AuditRsp	ProtocolIE-ID ::= 5
id-Local-Cell-InformationItem-AuditRsp	ProtocolIE-ID ::= 125
id-Local-Cell-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 126
id-Local-Cell-InformationItem2-ResourceStatusInd	ProtocolIE-ID ::= 127
id-Local-Cell-InformationList-AuditRsp	ProtocolIE-ID ::= 128
id-AdjustmentPeriod	ProtocolIE-ID ::= 129
id-MaxAdjustmentStep	ProtocolIE-ID ::= 130
id-MaximumTransmissionPower	ProtocolIE-ID ::= 131
id-MeasurementFilterCoefficient	ProtocolIE-ID ::= 132
id-MeasurementID	ProtocolIE-ID ::= 133
id-MessageStructure	ProtocolIE-ID ::= 115
id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst	ProtocolIE-ID ::= 134
id-NodeB-CommunicationContextID	ProtocolIE-ID ::= 143
id-P-CCPCH-Information	ProtocolIE-ID ::= 144
id-P-CCPCH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 145
id-P-CPICH-Information	ProtocolIE-ID ::= 146
id-P-CPICH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 147
id-P-SCH-Information	ProtocolIE-ID ::= 148
id-PCCPCH-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 150
id-PCCPCH-Information-Cell-SetupRqstTDD	ProtocolIE-ID ::= 151
id-PCH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 155
id-PCH-ParametersItem-CTCH-SetupRqstFDD	ProtocolIE-ID ::= 156
id-PCH-ParametersItem-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 157
id-PCH-Information	ProtocolIE-ID ::= 158
id-PDSCH-Information-AddListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 161
id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 162
id-PDSCHSets-AddList-PSCH-ReconfRqst	ProtocolIE-ID ::= 163
id-PDSCHSets-DeleteList-PSCH-ReconfRqst	ProtocolIE-ID ::= 164
id-PDSCHSets-ModifyList-PSCH-ReconfRqst	ProtocolIE-ID ::= 165
id-PICH-Information	ProtocolIE-ID ::= 166
id-PICH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 168
id-PowerAdjustmentType	ProtocolIE-ID ::= 169
id-PRACH-Information	ProtocolIE-ID ::= 170
id-PrimaryCCPCH-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 175
id-PrimaryCCPCH-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 176
id-PrimaryCPICH-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 177
id-PrimaryCPICH-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 178
id-PrimarySCH-Information-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 179
id-PrimarySCH-Information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 180
id-PrimaryScramblingCode	ProtocolIE-ID ::= 181
id-SCH-Information-Cell-ReconfRqstTDD	ProtocolIE-ID ::= 183
id-SCH-Information-Cell-SetupRgstTDD	ProtocolIE-ID ::= 184
id-PUSCH-Information-AddListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 185
id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst	ProtocolIE-ID ::= 186
id-PUSCHSets-AddList-PSCH-ReconfRqst	ProtocolIE-ID ::= 187
id-PUSCHSets-DeleteList-PSCH-ReconfRgst	ProtocolIE-ID ::= 188
id-PUSCHSets-ModifyList-PSCH-ReconfRgst	ProtocolIE-ID ::= 189
id-RACH-Information	ProtocolIE-ID ::= 190
id-RACH-ParametersItem-CTCH-SetupRqstFDD	ProtocolIE-ID ::= 196
id-RACH-ParameterItem-CTCH-SetupRgstTDD	ProtocolIE-ID ::= 197
id-ReportCharacteristics	ProtocolIE-ID ::= 198
id-Reporting-Object-RL-FailureInd	ProtocolIE-ID ::= 199
id-Reporting-Object-RL-RestoreInd	ProtocolIE-ID ::= 200

id-RL-InformationItem-DM-Rprt id-RL-InformationItem-DM-Rgst id-RL-InformationItem-DM-Rsp id-RL-InformationItem-RL-AdditionRgstFDD id-RL-informationItem-RL-DeletionRgst id-RL-InformationItem-RL-FailureInd id-RL-InformationItem-RL-PreemptRequiredInd id-RL-InformationItem-RL-ReconfPrepFDD id-RL-InformationItem-RL-ReconfRqstFDD id-RL-InformationItem-RL-RestoreInd id-RL-InformationItem-RL-SetupRqstFDD id-RL-InformationList-RL-AdditionRgstFDD id-RL-informationList-RL-DeletionRqst id-RL-InformationList-RL-PreemptRequiredInd id-RL-InformationList-RL-ReconfPrepFDD id-RL-InformationList-RL-ReconfRqstFDD id-RL-InformationList-RL-SetupRgstFDD id-RL-InformationResponseItem-RL-AdditionRspFDD id-RL-InformationResponseItem-RL-ReconfReady id-RL-InformationResponseItem-RL-ReconfRsp id-RL-InformationResponseItem-RL-SetupRspFDD id-RL-InformationResponseList-RL-AdditionRspFDD id-RL-InformationResponseList-RL-ReconfReady id-RL-InformationResponseList-RL-ReconfRsp id-RL-InformationResponseList-RL-SetupRspFDD id-RL-InformationResponse-RL-AdditionRspTDD id-RL-InformationResponse-RL-SetupRspTDD id-RL-Information-RL-AdditionRgstTDD id-RL-Information-RL-ReconfRgstTDD id-RL-Information-RL-ReconfPrepTDD id-RL-Information-RL-SetupRgstTDD id-RL-ReconfigurationFailureItem-RL-ReconfFailure id-RL-Set-InformationItem-DM-Rprt id-RL-Set-InformationItem-DM-Rsp id-RL-Set-InformationItem-RL-FailureInd id-RL-Set-InformationItem-RL-RestoreInd id-S-CCPCH-Information id-S-CPICH-Information id-SCH-Information id-S-SCH-Information id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD id-SecondaryCPICH-InformationItem-Cell-SetupRqstFDD id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD id-SecondaryCPICH-InformationList-Cell-SetupRqstFDD id-SecondarySCH-Information-Cell-ReconfRqstFDD id-SecondarySCH-Information-Cell-SetupRgstFDD id-SegmentInformationListIE-SystemInfoUpdate id-SFN id-ShutdownTimer id-Start-Of-Audit-Sequence-Indicator

ProtocolIE-ID	::=	202
ProtocolIE-ID	::=	203
ProtocolIE-ID	::=	204
ProtocolIE-ID	::=	205
ProtocolIE-ID	::=	206
ProtocolIE ID	: : =	200
ProtocolIE-ID		207
ProtocoliE-ID		200
ProtocollE-ID		200
ProtocollE-ID		209
ProtocollE-ID	••=	210
ProtocolIE-ID	::=	211
ProtocolIE-ID	::=	212
ProtocolIE-ID	::=	213
ProtocolIE-ID	::=	237
ProtocolIE-ID	::=	214
ProtocolIE-ID	::=	215
ProtocolIE-ID	::=	216
ProtocolIE-ID	::=	217
ProtocolIE-ID	::=	218
ProtocolIE-ID	::=	219
ProtocolIE-ID	::=	220
ProtocolIE-ID	::=	221
ProtocolIE ID	: : =	222
ProtocolIE ID		222
ProtocolIE-ID		223
ProtocollE-ID		224
ProtocollE-ID		225
ProtocollE-ID	::=	226
ProtocollE-ID	::=	227
ProtocolIE-ID	::=	228
ProtocolIE-ID	::=	229
ProtocolIE-ID	::=	230
ProtocolIE-ID	::=	236
ProtocolIE-ID	::=	238
ProtocolIE-ID	::=	240
ProtocolIE-ID	::=	241
ProtocolIE-ID	::=	242
ProtocolIE-ID	::=	247
ProtocolIE-ID	::=	249
ProtocolIE-ID	::=	251
ProtocolIE-ID	::=	253
ProtocolIE ID	: : =	257
ProtocolIE-ID		257
ProtocolIE-ID		250
ProtocollE-ID		259
ProtocollE-ID	••=	260
ProtocollE-ID	::=	261
ProtocollE-ID	::=	262
ProtocolIE-ID	::=	263
ProtocolIE-ID	::=	264
ProtocolIE-ID	::=	265
ProtocolIE-ID	::=	266
ProtocolIE-ID	::=	268
ProtocolIE-ID	::=	269
ProtocolIE-ID	::=	114

id-Successful-RL-InformationRespItem-RL-AdditionFail	lureFDD	ProtocolIE-ID	::=	270
id-Successful-RL-InformationRespItem-RL-SetupFailure	eFDD	ProtocolIE-ID	::=	271
id-SyncCase		ProtocolIE-ID	::=	274
id-SyncCaseIndicatorItem-Cell-SetupRqstTDD-PSCH		ProtocolIE-ID	::=	275
id-T-Cell		ProtocolIE-ID	::=	276
id-TimeSlotConfigurationList-Cell-ReconfRqstTDD		ProtocolIE-ID	::=	277
id-TimeSlotConfigurationList-Cell-SetupRgstTDD		ProtocolIE-ID	::=	278
id-TransmissionDiversityApplied		ProtocolIE-ID	::=	279
id-TypeOfError		ProtocolIE-ID	::=	508
id-UARFCNforNt		ProtocolIE-ID	::=	280
id-UARFCNforNd		ProtocolIE-ID	::=	281
id-UARFCNforNu		ProtocolIE-ID	::=	282
id-UL-CCTrCH-InformationItem-RL-SetupRostTDD		ProtocolIE-ID	::=	284
id-UL-CCTrCH-InformationList-RL-AdditionRastTDD		Protocol IE-ID	::=	285
id-IIICCTrCH-InformationList-RL-SetupRastTDD		ProtocolIE-ID	::=	288
id-IIIDPCH-InformationItem-RL-AdditionRastTDD		ProtocolIE-ID	::=	289
id-IIIDPCH-InformationList-RL-SetupRostTDD		ProtocolIE ID		291
id-IIIDPCH-Information-BL-ReconfPrenEDD		ProtocolIE ID		293
id-IIIDDCH-Information_PL_PegonfPagtEDD		ProtocolIE ID		201
id-IIIDPCH-Information-RL-SetupPagtEDD		ProtocolIE-ID		205
id-Unguggoggful-PI-InformationPogpItom-PI-AdditionE	מתפסיווי	ProtocolIE-ID		205
id Ungugggggful PL InformationDegnItem PL CotunEcil	allulerDD moEDD	ProtocollE-ID		290
id Unsuccessful PL InformationRespicem-RL-Secupration		ProtocollE-ID		291
id Unsuccessful PL InformationResp-RL-AdditionFailu	reidd	ProtocollE-ID	=	300
id UCCU Information Add		ProtocollE-ID	=	301
1d-USCH-Information-Add		ProtocollE-ID	::=	302
id-USCH-Information-DeleteList-RL-ReconfPrepTDD		ProtocollE-ID	::=	304
id-USCH-Information-ModifyList-RL-ReconfPrepTDD		ProtocollE-ID	••=	306
id-USCH-InformationResponse		ProtocollE-ID	::=	309
id-USCH-Information		ProtocolIE-ID	::=	310
id-Active-Pattern-Sequence-Information		ProtocolIE-ID	::=	315
id-AICH-ParametersListIE-CTCH-RecontRqstFDD		ProtocolIE-ID	::=	316
id-AdjustmentRatio		ProtocolIE-ID	::=	317
id-AP-AICH-Information		ProtocolIE-ID	::=	320
id-AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD		ProtocolIE-ID	::=	322
id-FACH-ParametersListIE-CTCH-ReconfRqstFDD		ProtocolIE-ID	::=	323
id-CauseLevel-PSCH-ReconfFailureTDD		ProtocolIE-ID	::=	324
id-CauseLevel-RL-AdditionFailureFDD		ProtocolIE-ID	::=	325
id-CauseLevel-RL-AdditionFailureTDD		ProtocolIE-ID	::=	326
id-CauseLevel-RL-ReconfFailure		ProtocolIE-ID	::=	327
id-CauseLevel-RL-SetupFailureFDD		ProtocolIE-ID	::=	328
id-CauseLevel-RL-SetupFailureTDD		ProtocolIE-ID	::=	329
id-CDCA-ICH-Information		ProtocolIE-ID	::=	330
id-CDCA-ICH-ParametersListIE-CTCH-ReconfRqstFDD		ProtocolIE-ID	::=	332
id-Closed-Loop-Timing-Adjustment-Mode		ProtocolIE-ID	::=	333
id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD		ProtocolIE-ID	::=	334
id-Compressed-Mode-Deactivation-Flag	ProtocolIE-ID	::= 335		
id-CPCH-Information		ProtocolIE-ID	::=	336
id-CPCH-Parameters-CTCH-SetupRsp		ProtocolIE-ID	::=	342
id-CPCH-ParametersListIE-CTCH-ReconfRqstFDD		ProtocolIE-ID	::=	343
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD		ProtocolIE-ID	::=	346
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD		ProtocolIE-ID	::=	347
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD		ProtocolIE-ID	::=	348
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD		ProtocolIE-ID	::=	349

Release 1999

id-DL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 350
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 351
id-DL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 352
1d-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 353
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 355
id-DL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 356
id-DL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 357
id-DL-TPC-Pattern01Count	ProtocolIE-ID ::= 358
id-DPCHConstant	ProtocolIE-ID ::= 359
id-FACH-ParametersList-CTCH-SetupRsp	ProtocolIE-ID ::= 362
id-Limited-power-increase-information-Cell-SetupRqstFDD	ProtocolIE-ID ::= 369
id-PCH-Parameters-CTCH-SetupRsp	ProtocolIE-ID ::= 374
id-PCH-ParametersItem-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 375
id-PCPCH-Information	ProtocolIE-ID ::= 376
id-PICH-ParametersItem-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 380
id-PRACHConstant	ProtocolIE-ID ::= 381
id-PRACH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 383
id-PUSCHConstant	ProtocolIE-ID ::= 384
id-RACH-Parameters-CTCH-SetupRsp	ProtocolIE-ID ::= 385
id-Synchronisation-Configuration-Cell-ReconfRqst	ProtocolIE-ID ::= 393
id-Synchronisation-Configuration-Cell-SetupRgst	ProtocolIE-ID ::= 394
id-Transmission-Gap-Pattern-Sequence-Information	ProtocolIE-ID ::= 395
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 396
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD	ProtocolIE-ID ::= 397
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 398
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD	ProtocolIE-ID ::= 399
id-UL-CCTrCH-InformationModifyItem-RL-ReconfRastTDD	ProtocolTE-TD := 400
id-IIICCTrCH-InformationModifyList-RL-ReconfPrepTDD	ProtocolTE-ID ::= 401
id-UL-CCTrCH-InformationModifyList-RL-ReconfRastTDD	ProtocolIE ID := 402
id-IIIDPCH-InformationAddListIE-RL-ReconfPrenTDD	ProtocolIE-ID ::= 403
id-IIIDPCH-InformationModify-AddListIF-RL-ReconfPrenTDD	ProtocolIE ID := 405
id-UL-DPCH-InformationModify Addition Reconficepto	ProtocolIE-ID ::= 406
id-UL-DPCH-InformationModify Deleteristic RE Reconfireptob	$\frac{1100000011E}{ProtocollE-ID} ::= 407$
id_Unguggeggful_DDSCUSetItem_DSCU_BegonfFailureTDD	ProtocolIE ID ::= 408
id_Unguggeggful_DUSCUSetItem_DSCH_ReconfFailureTDD	ProtocolIE-ID ::= 400
id-CommunicationContextInfoItem-Podet	ProtocoliE-ID ··- 409
id CommunicationControlDortInfoItem Deast	ProtocollE-ID ··- 412
id DegetIndigeter	ProtocollE-ID ··= 414
id TEGIA Deever Information DI SotupDestEDD	ProtocollE-ID ··= 410
id-IFCI2-Bearer-Information-RL-SetupRqStFDD	Protocolle-ID ··= 41/
id-TFC12-BearerSpecificInformation-RL-ReconfPrepFDD	ProtocollE-ID ::= 418
id-TFC12-BearerInformationResponse	ProtocollE-ID ::= 419
id-TimingAdvanceApplied	ProtocolIE-ID ::= 287
id-CFNReportingIndicator	ProtocolIE-ID ::= 6
id-SFNReportingIndicator	ProtocolIE-ID ::= 11
id-InnerLoopDLPCStatus	ProtocolIE-ID ::= 12
id-TimeslotISCPInfo ProtocolIE-ID :	:= 283
id-PICH-ParametersItem-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 167
1d-PRACH-ParametersItem-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 20
1d-CCTrCH-InformationItem-RL-FailureInd	ProtocolIE-ID ::= 46
id-CCTrCH-InformationItem-RL-RestoreInd	ProtocolIE-ID ::= 47

<u>Annex B (informative)</u> Guidelines for Usage of the Criticality Diagnostics IE

B.1 EXAMPLE MESSAGE Layout

Assume the following message format:

IE/Group Name	Presence	Range	IE type	Semantics	Criticality	Assigned
			and	description		Criticality
			<u>referenc</u>			
			e			
Message Type	Μ				YES	reject
Transaction ID	M				<u> </u>	
A	M				YES	reject
B	M				YES	reject
<u>>E</u>		<u>1<maxe></maxe></u>			EACH	ignore
>>F		<u>1<maxf></maxf></u>			-	
<u>>>>G</u>		<u>03,</u>			EACH	ignore
>>H		<u>1<maxh></maxh></u>			EACH	ignore
<u>>>>G</u>		03,			EACH	ignore and
						notify
<u>>>G</u>	M				YES	<u>reject</u>
<u>>>J</u>		<u>1<maxj></maxj></u>			-	
<u>>>>G</u>		<u>03,</u>			EACH	<u>reject</u>
<u>C</u>	M				YES	reject
<u>>K</u>		<u>1<maxk></maxk></u>			EACH	ignore and
						notify
<u>>>L</u>		<u>1<maxl></maxl></u>			<u>-</u>	
<u>>>>M</u>	0				<u>-</u>	
D	M				YES	reject

Note 1.The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the
ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable
IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g.
ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause B.4.







B.3 Content of Criticality Diagnostics



Figure B.2: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure B.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 4.
<u>IE ID</u>	id-G	IE ID from the reported level, i.e. level 4.
Repetition	<u>11</u>	Repetition number on the reported level, i.e. level 4.
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE this is
		the eleventh occurrence of IE G within the IE E (level 2).
Type of Error	not	
	<u>underst</u>	
	<u>ood</u>	
Message Structur	e, first repe	<u>etition</u>
<u>>IE ID</u>	id-B	IE ID from level 1.
Message Structur	e, second	repetition_
<u>>IE ID</u>	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.
Number		

Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their <u>own.</u>

Note 3. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).



Included in the Information Element Criticality Diagnostics IE: a) IE ID IE

b) Repetition Number IE

Figure B.3: Example of a received NBAP message containing a not comprehended IE

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure B.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	<u>ignore</u>	Criticality for IE on the reported level, i.e. level 2.
	and	
	notify	
<u>IE ID</u>	<u>id-K</u>	IE ID from the reported level, i.e. level 2.
Repetition	3	Repetition number on the reported level, i.e. level 2.
Number		
Type of Error	not	
	underst	
	ood	
Message Structur	re, first rep	etition
>IE ID	id-C	IE ID from the lowest level above the reported level, i.e. level 1.

Note 4. The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.



- Included in the Information Element Criticality Diagnostics IE: a) IE ID IE
- b) Repetition Number IE

Figure B.4: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure B.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment			
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 4.			
IE ID	id-G	IE ID from the reported level, i.e. level 4.			
Repetition	<u>2</u>	Repetition number on the reported level, i.e. level 4.			
Number					
Type of Error	<u>not</u>				
	<u>underst</u>				
	<u>ood</u>				
Message Structur	<u>e, first repe</u>	etition			
<u>>IE ID</u>	<u>id-B</u>	IE ID from level 1.			
Message Structur	e, second	<u>repetition</u>			
<u>>IE ID</u>	id-E	IE ID from level 2.			
>Repetition	<u>3</u>	Repetition number from level 2.			
Number					
Message Structur	e, third rep	<u>betition</u>			
>IE ID	id-H	IE ID from the lowest level above the reported level, i.e. level 3.			
>Repetition	1	Repetition number from the lowest level above the reported level, i.e. level 3.			
Number					

Note 5. The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).



Included in the Information Element Criticality Diagnostics IE: a) IE ID IE

b) Repetition Number IE

Figure B.5: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure B.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment			
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.			
IE ID	id-G	IE ID from the reported level, i.e. level 3.			
Repetition	<u>5</u>	Repetition number on the reported level, i.e. level 3.			
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE this is			
		the fifth occurrence of IE G within the IE E (level 2).			
Type of Error	not				
	<u>underst</u>				
	ood				
Message Structur	e, first repe	etition			
<u>>IE ID</u>	id-B	IE ID from level 1.			
Message Structur	e, second	repetition_			
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.			
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.			
Number					

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).



Included in the Information Element Criticality Diagnostics IE: a) IE ID IE

b) Repetition Number IE

Figure B.6: Example of a received NBAP message with a missing IE

If the instance marked as grey in the IE G in the IE E shown in the figure B.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment				
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.				
<u>IE ID</u>	id-G	IE ID from the reported level, i.e. level 3.				
Repetition	<u>4</u>	Repetition number up to the missing IE on the reported level, i.e. level 3.				
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE there				
		have been four occurrences of IE G within the IE E (level 2) up to the missing				
		occurrence.				
Type of Error	missing					
Message Structure, first repetition		etition				
<u>>IE ID</u>	id-B	IE ID from level 1.				
Message Structur	e, second	repetition				
<u>>IE ID</u>	<u>id-E</u>	IE ID from the lowest level above the reported level, i.e. level 2.				
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.				
Number						

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

B.4 ASN.1 of EXAMPLE MESSAGE

ExampleMessage ::= SEQUENCE {	
ProtocolIEs ProtocolIE-Container ProtocolExtensionS ProtocolExtensionContainer	{{ExampleMessage-IEs}}, {{ExampleMessage-Extensions}} OPTIONAL
ExampleMessage-IEs NBAP-PROTOCOL-IES ::= {	
{ ID id-A CRITICALITY reject TYPE A PRESENCE	mandatory}
{ ID id-B CRITICALITY reject TYPE B PRESENCE	mandatory}
{ ID id-C CRITICALITY reject TYPE C PRESENCE { ID id-D CRITICALITY reject TYPE D PRESENCE	mandatory}
····	
<u>}</u>	
B ::= SEQUENCE {	
e E-List,	
IE-EXtensions ProtocolExtensionContainer { {B-	EXTIES } OPTIONAL,
<u>}</u>	
R-FYTIES NEAD-DROTOCOL-FYTENSION ··- J	
<u>}</u>	
E-List ::= SECUENCE (SIZE (1 maxE)) OF ProtocollE-S	ingle-Container { {E-IEs} }
E-IES NBAP-PROTOCOL-IES ::= {	
<pre>{ ID id-E CRITICALITY ignore TYPE E PRESENCE }</pre>	mandatory }
⊥	
<u>E ::= SEQUENCE {</u>	
h H-List,	
g G-Listl,	
jJ_List, iE_ExtensionContainer { {E	ExTIES } OPTIONAL
}	
E-EXTIES NBAP-PROTOCOL-EXTENSION ::= {	
<u>}</u>	
F-List ::= SEQUENCE (SIZE (1maxF)) OF F	
$\frac{F ::= SEQUENCE \{}{G-List2 \text{ OPTIONAL}}$	
iE-Extensions ProtocolExtensionContainer { {F-	ExtIEs} } OPTIONAL,
<u></u>	
1	
F-ExtIES NBAP-PROTOCOL-EXTENSION ::= {	
<u></u>	
G-List2 ::= SEQUENCE (SIZE (13,)) OF ProtocolI	E-Single-Container { {G2-IEs} }
G2-IES NBAP-PROTOCOL-IES ::= {	
{ ID id-G CRITICALITY ignore TYPE G PRESENCE	mandatory }
<u>}</u>	
H-List ::= SEQUENCE (SIZE (1maxH)) OF ProtocolIE-S	ingle-Container { {H-IEs} }
~~,	
H-IES NBAP-PROTOCOL-IES ::= {	mandatory }
}	
q G-List3 OPTIONAL.	
iE-Extensions ProtocolExtension	nContainer { {H-ExtIEs} } OPTIONAL,
<u></u>	
H-EXTIES NBAP-PROTOCOL-EXTENSION ::= {	
<u></u>	
<u>_</u>	

Release 1999

442

G-List3 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G3-IEs} } G3-IES NBAP-PROTOCOL-IES ::= { { ID id-G CRITICALITY notify TYPE G PRESENCE mandatory } G-List1 ::= ProtocolIE-Single-Container { {G1-IEs} } G1-IES NBAP-PROTOCOL-IES ::= { { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory } J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J J ::= SEQUENCE { g G-List4 OPTIONAL, iE-Extensions ProtocolExtensionContainer { {J-ExtIEs} } OPTIONAL, g } NBAP-PROTOCOL-EXTENSION ::= { J-ExtIEs ... } G-List4 := SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { [G4-IEs} } G4-IES NBAP-PROTOCOL-IES ::= { { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory } } $C ::= SEQUENCE \{$ k K-List, iE-Extensions ProtocolExtensionContainer { {C-ExtIEs} } OPTIONAL, . . . } C-ExtIEs NBAP-PROTOCOL-EXTENSION ::= { • • • } K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { {K-IEs} } K-IES NBAP-PROTOCOL-IES ::= { { ID id-K CRITICALITY notify TYPE K PRESENCE mandatory } } K ::= SEQUENCE { L-List, ٦ iE-Extensions ProtocolExtensionContainer { {K-ExtIEs} } OPTIONAL, . . . } K-ExtIEs NBAP-PROTOCOL-EXTENSION ::= { . . . } L-List ::= SEQUENCE (SIZE (1..maxL)) OF L $L ::= SEQUENCE {$
 m
 M
 OPTIONAL,

 iE-Extensions
 ProtocolExtensionContainer { {L-ExtIEs} }
 OPTIONAL,
 m . . . } L-ExtIEs NBAP-PROTOCOL-EXTENSION ::= { ... } ExampleMessage-Extensions NBAP-PROTOCOL-EXTENSION ::= { . . . }

3GPP TSG-RAN WG3 Meeting #21 Busan, Korea, May 21st – 25th, 2001

R3-011865

CHANGE REQUEST										
^ж 2	<mark>5.433</mark>	CF	390	ж	rev	<mark>2</mark> ^೫	Current vers	ion:	4.0.0	ж
For <u>HELP</u> or	n using	this form, s	e bottom of	this pag	ge or lo	ook at t	he pop-up text	over	the ¥ syr	mbols.
Proposed chang	je affec	: ts:)SIM	ME/UE		Radio A	Access Network	< X	Core Ne	etwork
Title:	ж Со	rrections ar	d introductic	on of an	appen	dix for	usage of Critic	<mark>ality E</mark>	Diagnostic	cs IE
Source:	<mark>೫ R-</mark> ∖	WG3								
Work item code:	ж <mark>ТЕ</mark>	1					<i>Date:</i> ೫	200	1-05-16	
Category:	жА						Release: ೫	REL	L-4	
	Deta be fo	F (essential A (correspo B (Addition C (Function D (Editorial ailed explana bund in 3GPF	correction) nds to a corre of feature), al modification modification) ions of the ab 2 TR 21.900.	ection in a n of featu pove cate	an earli ıre) gories	er relea can	2 se) R96 R97 R98 R99 REL-4 REL-5	(GSM (Relea (Relea (Relea (Relea (Relea	1 Phase 2) ase 1996) ase 1997) ase 1998) ase 1999) ase 4) ase 5)	
Summary of cha	nge: ¥	Also the ounderstate appendix Changes • The s and A • One of • The of One of • Diago	rror is addec with example since R3 #20 emantics of dessage Stru- igure per exa example on " Sype of Error postics IE in 1	the <i>Rep</i> discrimination discriminat	Critica e usag betition have be lE have ave be lE have ave be	lity Dia e of Cr Numb been incl as been added i Diagnos	er IE in the Crim mproved. udded in the Ap included in the Ap included in the Ap	ade e d an ir <i>stics</i> I ticality pendi e App on Ele (the r	easier to formative IE is also <i>/ Diagnos</i> ix. eendix. ement Cri reporting	e added. stics IE iticality of
		multip The r Caus main Cons as we (Igno • The v has b • The v has b • Rev2: It wa Repetition IE will lead syntax (de	ble causes to hain reason to e IE, but the reason my b ructed Mess ill (cause="A re and Notify alue range for een changed alue range for een changed as recognise Number IE in to a non bac coder) error	b the incl for report reason be a miss sage)") b bstract s ()"). or the <i>R</i> d from (1 d from (1 d, that the n the <i>Cr</i> ckwards if this IE	Iusion rting C may b sing IE out still Syntax Pepetiti 1256 Pepetiti 1256 he add iticality	of the (criticality e differ (cause there) (cause (cause (cause there) (cause (cause (cause (cause (cause (cause	Criticality Diagr y Diagnostics of ent for differen e="Abstract Sy may be a not u (Reject)" or "At nber IE in the 0 255,). nber IE in the 0 256,). the extension postics IE and the change, as it e.	mostic: can be t repo ntax E nders ostrac Critica Messa Marke he Me g. cau versi	s IE. e indicate orted IEs. Error (Fal- tood IE re t Syntax <i>lity Diagr</i> age Struct er for the essage St uses an tr on which	d by the E.g the sely eported Error <i>nostics</i> IE <i>ture</i> IE <i>ture</i> IE

	implemented this change.
	As an outcome one correction in ASN.1+removal of ellipsis from the repetition number were performed.
Consequences if not approved:	It will not be possible to know what type of error that is reported, making it difficult to take appropriate actions.
	The proposed change is not backwards compatible due to:
	The changes done to the value range for Repetition Number.
	• The introduction of the possibility to report missing IEs, thus making received information ambiguous for a receiver implemented according to Criticality Diagnostics without this possibility.
Clauses affected:	9 2 1 17 9 2 1 45A 9 3 4 9 3 6 and Appendix B (new)

enddood amootoan						
Other specs	жХ	Other core specifications	æ	25.413 V3.5.0, CR276		
		'		25.413 V4.0.0, CR277		
				25 419 V3 4 0 CR035		
				25.419 V4.0.0, CR036		
				25.423 V3.5.0, CR340		
				25.423 V4.0.0, CR341		
				25.433 V3.5.0, CR389		
affected:		Test specifications				
		OPM Specifications				
		Oalvi Specifications				
Other comments:	ж					

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.
9.2.1.17 Criticality Diagnostics

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

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Procedure ID		01		Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error
>Procedure Code	М		INTEGER (0255)	
>Ddmode	М		ENUMÉRAT ED (FDD, TDD, Common)	Common = common to FDD and TDD.
Triggering Message	0		ENUMERAT ED(initiating message, successful outcome, unsuccessful outcome, outcome)	The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication.
Procedure Criticality	0		ENUMERAT ED(reject, ignore, notify)	This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure). The value 'ignore' shall never be used.
Transaction ID	0		Transaction ID 9.2.1.62	
Information Element Criticality Diagnostics		0 to <maxnoof< td=""><td></td><td></td></maxnoof<>		
>IE Criticality	М		ENUMERAT ED(reject, ignore, notify)	The IE Criticality is used for reporting the criticality of the triggering IE. The value 'ignore' shall never be used.
>IE ID	М		INTEGER	The IE ID of the not
			(<u>0</u> 425 <u>5</u> 6)	 in case of a not understood IE: The number of occurrences of the reported IE up to and including the not understood occurrence in case of a missing IE: The number of occurrences up to but not including the missing occurrence. Note: All the counted occurrences of the reported IE must have the same topdown hierachical message structure of IEs with assigned criticality above them. The repotition number of the not understood IE within the bottom most repotition level identified by the message structure IE. if
>Message Structure	0		9.2.1.45A	applicable The Message Structure IE

			describes the structure where the not understood or missing <u>IE was detected.</u> This IE is included if the not understood IE is not the top level of the message.
>Type of Error	M	ENUMERAT ED(not understood, missing,)	

Explanation
laximum no. of IE errors allowed to be reported with a single
nessage.
/I

9.2.1.45A Message Structure

The *Message Structure* IE gives information for each level with assigned criticality in an hierachical message structure from top level down to the lowest level above the reported level for the occured error (reported in the *Information Element Criticality Diagnostics* IE).

IE/Group Name	Presence	Range	IE type and reference	Semantics description	Criticality	Assigned Criticality
Message		1 to	reterence	The first repetition of	GLOBAL	ignore
structure		<maxnoofle vels></maxnoofle 		the Message Structure IE corresponds to the top level of the message. The last repetition of the Message Structure IE corresponds to the level above the reported level for the occured error of the message.Informatio n given per level with assigned criticality in an hierachical message structure. Given from top level down to the level above the reported level for the occured error (reported in the Information Element Criticality	GLUBAL	Ignore
	M			Diagnostics IE).		
			(065535)	level's IE containing the not understood or missing IE.	-	
>Repetition Number	0		INTEGER (1256)	The Repetition Number IE gives, if applicable, the number of occurrences of this level's reported IE up to and including the occurrence containing the not understood or missing IE. Note: All the counted occurrences of the reported IE must have the same topdown hierachical message structure of IEs with assigned criticality above them.The repetition number of this level's reported IE, if applicable	-	

Range bound	Explanation
maxnooflevels	Maximum no. of message levels to report. The value for
	maxnooflevels is 256.

```
Information Elements Definitions
9.3.4
_ _
-- 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,
   maxNrOfCellSyncBursts,
   maxNrOfCodeGroups,
   maxNrOfMeasNCell,
   maxNrOfMeasNCell-1,
   maxNrOfReceptsPerSyncFrame,
   maxNrOfTFCIGroups,
   maxNrOfTFCI1Combs,
   maxNrOfTFCI2Combs,
   maxNrOfTFCI2Combs-1,
   maxNrOfSF,
   maxTGPS,
   maxNrOfUSCHs,
   maxNrOfULTSs,
   maxNrOfDPCHs,
   maxNrOfCodes,
   maxNrOfDSCHs,
   maxNrOfDLTSs,
   maxNrOfDCHs,
   maxNrOfLevels,
   maxNoGPSItems,
   maxNoSat,
   id-MessageStructure,
   id-TypeOfError
FROM NBAP-Constants
   Criticality,
   ProcedureID,
```

. . .

ProtocolIE-ID,

```
TransactionID,
   TriggeringMessage
FROM NBAP-CommonDataTypes
   NBAP-PROTOCOL-IES,
   ProtocolExtensionContainer{},
   ProtocolIE-Single-Container{},
   NBAP-PROTOCOL-EXTENSION
FROM NBAP-Containers;
-- A
Acknowledged-PCPCH-access-preambles ::= INTEGER (0..15,...)
Acknowledged-PRACH-preambles-Value ::= INTEGER(0...240,...)
-- The number of L1 acknowledged random access tries per every 20 ms period.
AddorDeleteIndicator ::= ENUMERATED {
   add,
   delete
Active-Pattern-Sequence-Information ::= SEQUENCE {
   cMConfigurationChangeCFN
                                                        CFN,
   transmission-Gap-Pattern-Sequence-Status
                                             Transmission-Gap-Pattern-Sequence-Status-List OPTIONAL,
                                             ProtocolExtensionContainer { {Active-Pattern-Sequence-Information-ExtIEs} } OPTIONAL,
   iE-Extensions
   . . .
Active-Pattern-Sequence-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   . . .
}
Transmission-Gap-Pattern-Sequence-Status-List ::= SEQUENCE (SIZE (0..maxTGPS)) OF
   SEQUENCE {
       tGPSID
                      TGPSID,
       tGPRC
                      TGPRC,
       tGCFN
                      CFN,
       iE-Extensions
                          ProtocolExtensionContainer { { Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs } } OPTIONAL,
       . . .
}
Transmission-Gap-Pattern-Sequence-Status-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
```

```
}
AICH-Power ::= INTEGER (-22..5)
-- Offset in dB.
AICH-TransmissionTiming ::= ENUMERATED {
   v0,
   v1
}
AllocationRetentionPriority ::= SEQUENCE {
   priorityLevel
                              PriorityLevel,
                             Pre-emptionCapability,
   pre-emptionCapability
   pre-emptionVulnerability
                             Pre-emptionVulnerability,
                             ProtocolExtensionContainer { {AllocationRetentionPriority-ExtIEs} } OPTIONAL,
   iE-Extensions
    . . .
AllocationRetentionPriority-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
   . . .
APPreambleSignature ::= INTEGER (0..15)
APSubChannelNumber ::= INTEGER (0..11)
AvailabilityStatus ::= ENUMERATED {
   empty,
   in-test,
   failed,
   power-off,
   off-line,
   off-duty,
   dependency,
   degraded,
   not-installed,
   log-full,
    . . .
  -----
_ _
_ _
   R
BCCH-ModificationTime ::= INTEGER (0..511)
-- Time = BCCH-ModificationTime * 8
-- Range 0 to 4088, step 8
-- All SFN values in which MIB may be mapped are allowed
BindingID ::= OCTET STRING (SIZE (1..4, ...))
BetaCD ::= INTEGER (0..15)
```

```
BlockingPriorityIndicator ::= ENUMERATED {
   high,
   normal.
   low,
    . . .
-- High priority: Block resource immediately.
-- Normal priority: Block resource when idle or upon timer expiry.
-- Low priority: Block resource when idle.
BlockSTTD-Indicator ::= ENUMERATED {
   active,
   inactive
_ _
   С
Cause ::= CHOICE {
   radioNetwork
                          CauseRadioNetwork,
   transport
                      CauseTransport,
   protocol
                          CauseProtocol,
   misc
                          CauseMisc,
    . . .
CauseMisc ::= ENUMERATED {
   control-processing-overload,
   hardware-failure,
   oam-intervention,
   not-enough-user-plane-processing-resources,
   unspecified,
   . . .
CauseProtocol ::= ENUMERATED {
   transfer-syntax-error,
   abstract-syntax-error-reject,
   abstract-syntax-error-ignore-and-notify,
   message-not-compatible-with-receiver-state,
   semantic-error,
   unspecified,
   abstract-syntax-error-falsely-constructed-message,
    . . .
CauseRadioNetwork ::= ENUMERATED {
   unknown-C-ID,
   cell-not-available,
   power-level-not-supported,
   dl-radio-resources-not-available,
   ul-radio-resources-not-available,
```

rl-already-ActivatedOrAlocated,

```
nodeB-Resources-unavailable,
    measurement-not-supported-for-the-object,
    combining-resources-not-available,
    requested-configuration-not-supported,
    synchronisation-failure,
    priority-transport-channel-established,
    sIB-Origination-in-Node-B-not-Supported,
    requested-tx-diversity-mode-not-supported,
    unspecified,
    bCCH-scheduling-error,
    measurement-temporarily-not-available,
    invalid-CM-settings,
    reconfiguration-CFN-not-elapsed,
    number-of-DL-codes-not-supported,
    s-cipch-not-supported,
    combining-not-supported,
    ul-sf-not-supported,
    dl-SF-not-supported,
    common-transport-channel-type-not-supported,
    dedicated-transport-channel-type-not-supported,
    downlink-shared-channel-type-not-supported,
    uplink-shared-channel-type-not-supported,
    cm-not-supported,
    tx-diversity-no-longer-supported,
    unknown-Local-Cell-ID,
    . . . ,
    number-of-UL-codes-not-supported,
    information-temporarily-not-available,
    information-provision-not-supported-for-the-object,
    cell-synchronisation-not-supported,
    synchronisation-adjustment-not-supported,
    dpc-mode-change-not-supported,
    iPDL-already-activated,
    iPDL-not-supported,
    iPDL-parameters-not-available
}
CauseTransport ::= ENUMERATED {
    transport-resource-unavailable,
    unspecified,
    . . .
CCTrCH-ID ::= INTEGER (0..15)
CDSubChannelNumbers ::= BIT STRING (SIZE (12))
CellParameterID ::= INTEGER (0..127,...)
CellSyncBurstAvailabilityIndicator ::= ENUMERATED {
    cellSyncBurstAvailable,
    cellSyncBurstNotAvailable
```

```
}
CellSyncBurstCode ::= INTEGER(0..7, ...)
CellSyncBurstCodeShift ::= INTEGER(0..7)
CellSyncBurstRepetitionPeriod ::= INTEGER (0..4095)
CellSyncBurstSIR ::= INTEGER (0..31)
CellSyncBurstTiming ::= CHOICE {
    initialPhase
                        INTEGER (0..1048575),
    steadyStatePhase
                            INTEGER (0..255)
CellSyncBurstTimingThreshold ::= INTEGER(0..254)
CFN ::= INTEGER (0..255)
Channel-Assignment-Indication ::= ENUMERATED {
    cA-Active,
    cA-Inactive
}
ChipOffset ::= INTEGER (0..38399)
-- Unit Chip
C-ID ::= INTEGER (0..65535)
Closedlooptimingadjustmentmode ::= ENUMERATED {
    adj-1-slot,
    adj-2-slot,
    . . .
}
CommonChannelsCapacityConsumptionLaw ::= SEQUENCE (SIZE(1..maxNrOfSF)) OF
    SEQUENCE {
        dl-Cost
                    INTEGER (0..65535),
        ul-Cost
                    INTEGER (0..65535),
        iE-Extensions
                            ProtocolExtensionContainer { { CommonChannelsCapacityConsumptionLaw-ExtIEs } }
                                                                                                               OPTIONAL,
    . . .
CommonChannelsCapacityConsumptionLaw-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
CommonMeasurementAccuracy ::= CHOICE {
    tUTRANGPSMeasurementAccuracyClass
                                            TUTRANGPSAccuracyClass,
    . . .
}
CommonMeasurementType ::= ENUMERATED {
```

```
received-total-wide-band-power,
    transmitted-carrier-power,
    acknowledged-prach-preambles,
    ul-timeslot-iscp,
    acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles,
    ...,
    uTRAN-GPS-Timing-of-Cell-Frames-for-LCS,
    sFN-SFN-Observed-Time-Difference
CommonMeasurementValue ::= CHOICE {
    transmitted-carrier-power
                                            Transmitted-Carrier-Power-Value,
    received-total-wide-band-power
                                            Received-total-wide-band-power-Value,
    acknowledged-prach-preambles
                                            Acknowledged-PRACH-preambles-Value,
    uL-TimeslotISCP
                                            UL-TimeslotISCP-Value,
    acknowledged-PCPCH-access-preambles
                                            Acknowledged-PCPCH-access-preambles,
    detected-PCPCH-access-preambles
                                            Detected-PCPCH-access-preambles,
    . . . ,
    tUTRANGPSMeasurementValueInformation
                                            TUTRANGPSMeasurementValueInformation,
    sFNSFNMeasurementValueInformation
                                            SENSENMeasurementValueInformation
CommonMeasurementValueInformation ::= CHOICE {
    measurementAvailable
                                CommonMeasurementAvailable,
    measurementnotAvailable
                                CommonMeasurementnotAvailable
CommonMeasurementAvailable::= SEQUENCE {
    commonmeasurementValue
                                CommonMeasurementValue
    ie-Extensions
                                     ProtocolExtensionContainer { { CommonMeasurementAvailableItem-ExtIEs } }
                                                                                                                   OPTIONAL,
    . . .
CommonMeasurementAvailableItem-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
CommonMeasurementnotAvailable ::= NULL
CommonPhysicalChannelID ::= INTEGER (0..255)
Common-PhysicalChannel-Status-Information ::= SEQUENCE {
    commonPhysicalChannelID
                                    CommonPhysicalChannelID,
    resourceOperationalState
                                        ResourceOperationalState,
    availabilityStatus
                                        AvailabilityStatus,
    iE-Extensions
                                        ProtocolExtensionContainer { { Common-PhysicalChannel-Status-Information-ExtIEs } }
                                                                                                                                  OPTIONAL,
    . . .
```

```
Common-PhysicalChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
}
CommonTransportChannelID ::= INTEGER (0..255)
Common-TransportChannel-Status-Information ::= SEQUENCE {
    commonTransportChannelID
                                        CommonTransportChannelID,
    resourceOperationalState
                                        ResourceOperationalState,
    availabilityStatus
                                        AvailabilityStatus,
    iE-Extensions
                                        ProtocolExtensionContainer { { Common-TransportChannel-Status-Information-ExtIEs } }
                                                                                                                                  OPTIONAL,
    . . .
Common-TransportChannel-Status-Information-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {
    . . .
}
CommunicationControlPortID ::= INTEGER (0..65535)
Compressed-Mode-Deactivation-Flag::= ENUMERATED {
    deactivate,
    maintain-Active
}
-- on=deactivate
ConfigurationGenerationID ::= INTEGER (0..255)
-- Value '0' means "No configuration"
ConstantValue ::= INTEGER (-10..10,...)
-- -10 dB - +10 dB
-- unit dB
-- step 1 dB
CPCH-Allowed-Total-Rate ::= ENUMERATED {
    v15,
    v30,
    v60,
    v120,
    v240,
    v480,
    v960,
    v1920,
    v2880,
    v3840,
    v4800,
    v5760,
    . . .
```

CPCHScramblingCodeNumber ::= INTEGER (0..79) CPCH-UL-DPCCH-SlotFormat ::= INTEGER (0..2...) CriticalityDiagnostics ::= SEQUENCE { procedureID ProcedureID OPTIONAL, triggeringMessage TriggeringMessage OPTIONAL, procedureCriticality Criticality OPTIONAL, transactionID TransactionID OPTIONAL, iEsCriticalityDiagnostics CriticalityDiagnostics-IE-List OPTIONAL, ProtocolExtensionContainer { {CriticalityDiagnostics-ExtIEs} } iE-Extensions OPTIONAL, . . . CriticalityDiagnostics-ExtIEs NBAP-PROTOCOL-EXTENSION ::= { . . . CriticalityDiagnostics-IE-List ::= SEQUENCE (SIZE (1..maxNrOfErrors)) OF SEQUENCE { iECriticality Criticality, ProtocolIE-ID, iE-ID repetitionNumber RepetitionNumber0 OPTIONAL, ProtocolExtensionContainer { {CriticalityDiagnostics-IE-List-ExtIEs} } iE-Extensions OPTIONAL, . . . CriticalityDiagnostics-IE-List-ExtIEs NBAP-PROTOCOL-EXTENSION ::= { ID id-MessageStructure CRITICALITY ignore EXTENSION MessageStructure PRESENCE optional } ID id-TypeOfError EXTENSION TypeOfError CRITICALITY ignore PRESENCE mandatory }, . . . MessageStructure ::= SEQUENCE (SIZE (1..maxNrOfLevels)) OF SEQUENCE { iE-ID ProtocolIE-ID, repetitionNumber RepetitionNumber1 OPTIONAL, ProtocolExtensionContainer { {MessageStructure-ExtIEs} } OPTIONAL, iE-Extensions . . . MessageStructure-ExtIEs NBAP-PROTOCOL-EXTENSION ::= { . . .

**** LOTS OF UNAFFECTED ASN.1 DESCRIPTION FROM SECTION 9.3.4 NOT SHOWN ****

```
RepetitionPeriod ::= ENUMERATED {
    v1,
```

}

v2, v4, v8, v16, v32, v64, ...

RepetitionNumber 0 ::= INTEGER (01..2556)

RepetitionNumber1 ::= INTEGER (1..256)

**** LOTS OF UNAFFECTED ASN.1 DESCRIPTION FROM SECTION 9.3.4 NOT SHOWN ****

TUTRANGPSQuality ::= INTEGER (0..1048574) <u>TypeOfError ::= ENUMERATED {</u>
<u>not-understood,</u>
<u>missing,</u>

...

-- U

**** LOTS OF UNAFFECTED ASN.1 DESCRIPTION FROM SECTION 9.3.4 NOT SHOWN ****

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

IMPORTS ProcedureCode, ProtocolIE-ID

FROM NBAP-CommonDataTypes;

************************************	* * * * * * * * * *		
Elementary Procedures			
************************************	* * * * * * * * * * *		
id-audit	ProcedureCode	::=	0
id-auditRequired	ProcedureCode	::=	1
id-blockResource	ProcedureCode	::=	2
id-cellDeletion	ProcedureCode	::=	3
id-cellReconfiguration	ProcedureCode	::=	4
id-cellSetup	ProcedureCode	::=	5
id-cellSynchronisationInitiation	ProcedureCode	::=	39
id-cellSynchronisationReconfiguration	ProcedureCode	::=	40
id-cellSynchronisationReporting	ProcedureCode	::=	41
id-cellSynchronisationTermination	ProcedureCode	::=	42
id-cellSynchronisationFailure	ProcedureCode	::=	43
id-commonMeasurementFailure	ProcedureCode	::=	6
id-commonMeasurementInitiation	ProcedureCode	::=	7
id-commonMeasurementReport	ProcedureCode	::=	8
id-commonMeasurementTermination	ProcedureCode	::=	9
id-commonTransportChannelDelete	ProcedureCode	::=	10
id-commonTransportChannelReconfigure	ProcedureCode	::=	11
id-commonTransportChannelSetup	ProcedureCode	::=	12
id-compressedModeCommand	ProcedureCode	::=	14
id-dedicatedMeasurementFailure	ProcedureCode	::=	16
id-dedicatedMeasurementInitiation	ProcedureCode	::=	17
id-dedicatedMeasurementReport	ProcedureCode	::=	18
id-dedicatedMeasurementTermination	ProcedureCode	::=	19
id-downlinkPowerControl	ProcedureCode	::=	20

id-downlinkPowerTimeslotControl	ProcedureCode	::=	38
id-errorIndicationForCommon	ProcedureCode	::=	35
id-errorIndicationForDedicated	ProcedureCode	::=	21
id-informationExchangeFailure	ProcedureCode	::=	40
id-informationExchangeInitiation	ProcedureCode	::=	41
id-informationExchangeTermination	ProcedureCode	::=	42
id-informationReporting	ProcedureCode	::=	43
id-physicalSharedChannelReconfiguration	ProcedureCode	::=	37
id-privateMessageForCommon	ProcedureCode	::=	36
id-privateMessageForDedicated	ProcedureCode	::=	22
id-radioLinkAddition	ProcedureCode	::=	23
id-radioLinkDeletion	ProcedureCode	::=	24
id-radioLinkFailure	ProcedureCode	::=	25
id-radioLinkPreemption	ProcedureCode	::=	39
id-radioLinkRestoration	ProcedureCode	::=	26
id-radioLinkSetup	ProcedureCode	::=	27
id-reset	ProcedureCode	::=	13
id-resourceStatusIndication	ProcedureCode	::=	28
id-cellsynchronisationAdjustment	ProcedureCode	::=	44
id-synchronisedRadioLinkReconfigurationCancellation	ProcedureCode	::=	29
id-synchronisedRadioLinkReconfigurationCommit	ProcedureCode	::=	30
id-synchronisedRadioLinkReconfigurationPreparation	ProcedureCode	::=	31
id-systemInformationUpdate	ProcedureCode	::=	32
id-unblockResource	ProcedureCode	::=	33
id-unSynchronisedRadioLinkReconfiguration	ProcedureCode	::=	34

3GPP TS 25.433 V4.0.0 (2001-03)

-- Lists

maxNrOfCodes	INTEGER	::=	10
maxNrOfDLTSs	INTEGER	::=	15
maxNrOfDLTSsLCR	INTEGER	::=	б
maxNrOfDLCodes	INTEGER	::=	8
maxNrOfErrors	INTEGER	::=	256
maxNrOfTFs	INTEGER	::=	32
maxNrOfTFCs	INTEGER	::=	1024
maxNrOfRLs	INTEGER	::=	16
maxNrOfRLs-1	INTEGER	::=	15 maxNrOfRLs - 1
maxNrOfRLs-2	INTEGER	::=	14 maxNrOfRLs - 2
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
maxNrOfPRACHLCRs	INTEGER	::=	8
maxNrOfPUSCHSets	INTEGER	::=	256
maxNrOfSCCPCHLCRs	INTEGER	::=	8
maxNrOfULTSs	INTEGER	::=	15
maxNrOfUSCHs	INTEGER	::=	32
maxAPSigNum	INTEGER	::=	16
maxNrOfSlotFormatsPRACH	INTEGER	::=	8
maxCellinNodeB	INTEGER	::=	256
maxCCPinNodeB	INTEGER	::=	256
maxCPCHCell	INTEGER	::=	maxNrOfCPCHs
maxCTFC	INTEGER	::=	16777215
maxLocalCellinNodeB	INTEGER	::=	maxCellinNodeB
maxNoofLen	INTEGER	::=	7
maxFPACHCell	INTEGER	::=	8
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
maxNrOfCellSyncBursts	INTEGER	::=	10
maxNrOfCodeGroups	INTEGER	::=	256
maxNrOfReceptsPerSyncFrame	INTEGER	::=	16
maxNrOfMeasNCell	INTEGER	::=	96
maxNrOfMeasNCell-1	INTEGER	::=	95 maxNrOfMeasNCell - 1
maxNrOfTFCIGroups	INTEGER	::=	256
maxNrOfTFCI1Combs	INTEGER	::=	512
maxNrOfTFCI2Combs	INTEGER	::=	1024
maxNrOfTFCI2Combs-1	INTEGER	::=	1023
maxNrOfSF	INTEGER	::=	8
maxTGPS	INTEGER	::=	6
maxCommunicationContext	INTEGER	::=	1048575
maxNrOfLevels	INTEGER	::=	256
maxNoSat	INTEGER	::=	16
maxNoGPSItems	INTEGER	::=	8
********	* * * * * * * * *	* * * *	*****

--

-- IEs --

id-AICH-Information	ProtocolIE-ID ::= 0
id-AICH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 1
id-BCH-Information	ProtocolIE-ID ::= 7
id-BCH-InformationItem-ResourceStatusInd	ProtocolIE-ID ::= 8
id-BCCH-ModificationTime	ProtocolIE-ID ::= 9

id-DSCHs-to-Add-FDD

id-BlockingPriorityIndicator id-Cause id-CCP-InformationItem-AuditRsp id-CCP-InformationList-AuditRsp id-CCP-InformationItem-ResourceStatusInd id-Cell-InformationItem-AuditRsp id-Cell-InformationItem-ResourceStatusInd id-Cell-InformationList-AuditRsp id-CellParameterID id-CFN id-C-TD id-CommonMeasurementAccuracy id-CommonMeasurementObjectType-CM-Rprt id-CommonMeasurementObjectType-CM-Rqst id-CommonMeasurementObjectType-CM-Rsp id-CommonMeasurementType id-CommonPhysicalChannelID id-CommonPhysicalChannelType-CTCH-SetupRqstFDD id-CommonPhysicalChannelType-CTCH-SetupRgstTDD id-CommunicationControlPortID id-ConfigurationGenerationID id-CRNC-CommunicationContextID id-CriticalityDiagnostics id-DCHs-to-Add-FDD id-DCH-AddList-RL-ReconfPrepTDD id-DCHs-to-Add-TDD id-DCH-DeleteList-RL-ReconfPrepFDD id-DCH-DeleteList-RL-ReconfPrepTDD id-DCH-DeleteList-RL-ReconfRgstFDD id-DCH-DeleteList-RL-ReconfRgstTDD id-DCH-FDD-Information id-DCH-TDD-Information id-DCH-InformationResponse id-FDD-DCHs-to-Modify id-TDD-DCHs-to-Modify id-DCH-ModifyList-RL-ReconfRqstTDD id-DedicatedMeasurementObjectType-DM-Rprt id-DedicatedMeasurementObjectType-DM-Rqst id-DedicatedMeasurementObjectType-DM-Rsp id-DedicatedMeasurementType id-DL-CCTrCH-InformationItem-RL-SetupRgstTDD id-DL-CCTrCH-InformationList-RL-AdditionRgstTDD id-DL-CCTrCH-InformationList-RL-SetupRqstTDD id-DL-DPCH-InformationItem-RL-AdditionRqstTDD id-DL-DPCH-InformationList-RL-SetupRgstTDD id-DL-DPCH-Information-RL-ReconfPrepFDD id-DL-DPCH-Information-RL-ReconfRqstFDD id-DL-DPCH-Information-RL-SetupRqstFDD id-DL-ReferencePowerInformationItem-DL-PC-Rgst id-DLReferencePower id-DLReferencePowerList-DL-PC-Rgst id-DSCH-AddItem-RL-ReconfPrepFDD

ProtocolIE-ID ::= 10 ProtocolIE-ID ::= 13 ProtocolIE-ID ::= 14 ProtocolIE-ID ::= 15 ProtocolTE-TD := 16ProtocolIE-ID ::= 17 ProtocolIE-ID ::= 18 ProtocolIE-ID ::= 19 ProtocolTE-TD := 23ProtocolIE-ID ::= 24 ProtocolIE-ID ::= 25 ProtocolIE-ID ::= 39 ProtocolIE-ID ::= 31 ProtocolIE-ID ::= 32 ProtocolIE-ID ::= 33 ProtocolIE-ID ::= 34 ProtocolIE-ID ::= 35 ProtocolIE-ID ::= 36 ProtocolIE-ID ::= 37 ProtocolIE-ID ::= 40 ProtocolIE-ID ::= 43 ProtocolIE-ID ::= 44 ProtocolIE-ID ::= 45 ProtocolIE-ID ::= 48 ProtocolIE-ID ::= 49 ProtocolIE-ID ::= 50 ProtocolIE-ID ::= 52 ProtocolIE-ID ::= 53 ProtocolIE-ID ::= 54 ProtocolIE-ID ::= 55 ProtocolIE-ID ::= 56 ProtocolIE-ID ::= 57 ProtocolIE-ID ::= 59 ProtocolIE-ID ::= 62 ProtocolIE-ID ::= 63 ProtocolIE-ID ::= 65 ProtocolIE-ID ::= 67 ProtocolIE-ID ::= 68 ProtocolIE-ID ::= 69 ProtocolIE-ID ::= 70 ProtocolIE-ID ::= 72 ProtocolTE-TD := 73ProtocolIE-ID ::= 76 ProtocolIE-ID ::= 77 ProtocolIE-ID ::= 79 ProtocolIE-ID ::= 81 ProtocolIE-ID ::= 82 ProtocolIE-ID ::= 83 ProtocolIE-ID ::= 84 ProtocolIE-ID ::= 85 ProtocolIE-ID ::= 86 ProtocolIE-ID ::= 87 ProtocolIE-ID ::= 89

id-DSCH-DeleteItem-RL-ReconfPrepFDD ProtocolIE-ID ::= 91 id-DSCH-DeleteList-RL-ReconfPrepFDD ProtocolIE-ID ::= 93 id-DSCHs-to-Add-TDD ProtocolIE-ID ::= 96 id-DSCH-Information-DeleteList-RL-ReconfPrepTDD ProtocolIE-ID ::= 98 id-DSCH-Information-ModifyList-RL-ReconfPrepTDD ProtocolTE-TD := 100id-DSCH-InformationResponse ProtocolIE-ID ::= 105 id-DSCH-FDD-Information ProtocolIE-ID ::= 106 id-DSCH-TDD-Information ProtocolIE-ID ::= 107 id-DSCH-ModifyItem-RL-ReconfPrepFDD ProtocolIE-ID ::= 108 id-DSCH-ModifyList-RL-ReconfPrepFDD ProtocolIE-ID ::= 112 ProtocolIE-ID ::= 113 id-End-Of-Audit-Sequence-Indicator id-FACH-Information ProtocolIE-ID ::= 116 id-FACH-InformationItem-ResourceStatusInd ProtocolIE-ID ::= 117 id-FACH-ParametersList-CTCH-ReconfRostTDD ProtocolIE-ID ::= 120 id-FACH-ParametersListIE-CTCH-SetupRgstFDD ProtocolIE-ID ::= 121 id-FACH-ParametersListIE-CTCH-SetupRgstTDD ProtocolIE-ID ::= 122 id-IndicationType-ResourceStatusInd ProtocolIE-ID ::= 123 ProtocolIE-ID ::= 124 id-Local-Cell-ID id-Local-Cell-Group-InformationItem-AuditRsp ProtocolIE-ID ::= 2 id-Local-Cell-Group-InformationItem-ResourceStatusInd ProtocolIE-ID ::= 3 id-Local-Cell-Group-InformationItem2-ResourceStatusInd ProtocolIE-ID ::= 4 id-Local-Cell-Group-InformationList-AuditRsp ProtocolIE-ID ::= 5 id-Local-Cell-InformationItem-AuditRsp ProtocolIE-ID ::= 125 id-Local-Cell-InformationItem-ResourceStatusInd ProtocolIE-ID ::= 126 id-Local-Cell-InformationItem2-ResourceStatusInd ProtocolIE-ID ::= 127 id-Local-Cell-InformationList-AuditRsp ProtocolIE-ID ::= 128 id-AdjustmentPeriod ProtocolIE-ID ::= 129 id-MaxAdjustmentStep ProtocolIE-ID ::= 130 id-MaximumTransmissionPower ProtocolIE-ID ::= 131 id-MeasurementFilterCoefficient ProtocolIE-ID ::= 132 id-MeasurementID ProtocolIE-ID ::= 133 id-MessageStructure ProtocolIE-ID ::= 115 id-MIB-SB-SIB-InformationList-SystemInfoUpdateRqst ProtocolIE-ID ::= 134 id-NodeB-CommunicationContextID ProtocolIE-ID ::= 143 id-NeighbouringCellMeasurementInformation ProtocolIE-ID ::= 455 id-P-CCPCH-Information ProtocolIE-ID ::= 144 id-P-CCPCH-InformationItem-ResourceStatusInd ProtocolIE-ID ::= 145 id-P-CPICH-Information ProtocolIE-ID ::= 146 id-P-CPICH-InformationItem-ResourceStatusInd ProtocolIE-ID ::= 147 id-P-SCH-Information ProtocolIE-ID ::= 148 id-PCCPCH-Information-Cell-ReconfRqstTDD ProtocolIE-ID ::= 150 id-PCCPCH-Information-Cell-SetupRqstTDD ProtocolTE-TD ::= 151id-PCH-Parameters-CTCH-ReconfRqstTDD ProtocolIE-ID ::= 155 id-PCH-ParametersItem-CTCH-SetupRqstFDD ProtocolIE-ID ::= 156 id-PCH-ParametersItem-CTCH-SetupRgstTDD ProtocolIE-ID ::= 157 id-PCH-Information ProtocolIE-ID ::= 158 id-PDSCH-Information-AddListIE-PSCH-ReconfRqst ProtocolIE-ID ::= 161 id-PDSCH-Information-ModifyListIE-PSCH-ReconfRqst ProtocolIE-ID ::= 162 id-PDSCHSets-AddList-PSCH-ReconfRqst ProtocolIE-ID ::= 163 id-PDSCHSets-DeleteList-PSCH-ReconfRqst ProtocolIE-ID ::= 164 id-PDSCHSets-ModifyList-PSCH-ReconfRast ProtocolIE-ID ::= 165 id-PICH-Information ProtocolIE-ID ::= 166

ProtocolIE-ID ::= 168

id-PowerAdjustmentType id-PRACH-Information id-PrimaryCCPCH-Information-Cell-ReconfRgstFDD id-PrimaryCCPCH-Information-Cell-SetupRgstFDD id-PrimaryCPICH-Information-Cell-ReconfRgstFDD id-PrimaryCPICH-Information-Cell-SetupRgstFDD id-PrimarySCH-Information-Cell-ReconfRgstFDD id-PrimarySCH-Information-Cell-SetupRgstFDD id-PrimaryScramblingCode id-SCH-Information-Cell-ReconfRgstTDD id-SCH-Information-Cell-SetupRqstTDD id-PUSCH-Information-AddListIE-PSCH-ReconfRqst id-PUSCH-Information-ModifyListIE-PSCH-ReconfRqst id-PUSCHSets-AddList-PSCH-ReconfRqst id-PUSCHSets-DeleteList-PSCH-ReconfRqst id-PUSCHSets-ModifyList-PSCH-ReconfRqst id-RACH-Information id-RACH-ParametersItem-CTCH-SetupRqstFDD id-RACH-ParameterItem-CTCH-SetupRgstTDD id-ReportCharacteristics id-Reporting-Object-RL-FailureInd id-Reporting-Object-RL-RestoreInd id-RL-InformationItem-DM-Rprt id-RL-InformationItem-DM-Rgst id-RL-InformationItem-DM-Rsp id-RL-InformationItem-RL-AdditionRqstFDD id-RL-informationItem-RL-DeletionRqst id-RL-InformationItem-RL-FailureInd id-RL-InformationItem-RL-PreemptRequiredInd id-RL-InformationItem-RL-ReconfPrepFDD id-RL-InformationItem-RL-ReconfRgstFDD id-RL-InformationItem-RL-RestoreInd id-RL-InformationItem-RL-SetupRqstFDD id-RL-InformationList-RL-AdditionRqstFDD id-RL-informationList-RL-DeletionRqst id-RL-InformationList-RL-PreemptRequiredInd id-RL-InformationList-RL-ReconfPrepFDD id-RL-InformationList-RL-ReconfRqstFDD id-RL-InformationList-RL-SetupRqstFDD id-RL-InformationResponseItem-RL-AdditionRspFDD id-RL-InformationResponseItem-RL-ReconfReady id-RL-InformationResponseItem-RL-ReconfRsp id-RL-InformationResponseItem-RL-SetupRspFDD id-RL-InformationResponseList-RL-AdditionRspFDD id-RL-InformationResponseList-RL-ReconfReady id-RL-InformationResponseList-RL-ReconfRsp id-RL-InformationResponseList-RL-SetupRspFDD id-RL-InformationResponse-RL-AdditionRspTDD id-RL-InformationResponse-RL-SetupRspTDD id-RL-Information-RL-AdditionRgstTDD id-RL-Information-RL-ReconfRgstTDD id-RL-Information-RL-ReconfPrepTDD id-RL-Information-RL-SetupRqstTDD

ProtocollE-ID	::=	T 6 9
ProtocolIE-ID	::=	170
ProtocolIE-ID	::=	175
ProtocolIE-ID	::=	176
ProtocolIE-ID	::=	177
ProtocolIE-ID	::=	178
ProtocolIE-ID	::=	179
ProtocolTE-TD	::=	180
Protocol IE-ID	::=	181
Protocol IE-ID	::=	183
ProtocolIE-ID	::=	184
ProtocolIE-ID	::=	185
ProtocolIE ID		186
ProtocolIE-ID		107
ProtocolIE-ID		100
ProtocollE-ID		100
ProtocollE-ID	••=	109
ProtocollE-ID	::=	190
ProtocollE-ID	••=	196
ProtocollE-ID	::=	197
ProtocolIE-ID	::=	198
ProtocolIE-ID	::=	199
ProtocolIE-ID	::=	200
ProtocolIE-ID	::=	202
ProtocolIE-ID	::=	203
ProtocolIE-ID	::=	204
ProtocolIE-ID	::=	205
ProtocolIE-ID	::=	206
ProtocolIE-ID	::=	207
ProtocolIE-ID	::=	286
ProtocolIE-ID	::=	208
ProtocolIE-ID	::=	209
ProtocolIE-ID	::=	210
ProtocolIE-ID	::=	211
ProtocolIE-ID	::=	212
ProtocolIE-ID	::=	213
ProtocolIE-ID	::=	237
ProtocolIE-ID	::=	214
ProtocolIE-ID	::=	215
ProtocolIE-ID	::=	216
ProtocolIE-ID	::=	217
Protocol IE-ID	::=	218
ProtocolIE-ID	::=	219
ProtocolIE-ID	::=	220
ProtocolIE-ID	::=	220
ProtocolIE ID		221
ProtocolIE-ID		222
ProtocollE-ID		223
ProtocoliE-ID	=	224
ProtocoliE-ID	=	225
ProtocollE-ID	=	220
PROFOCOTIE-ID	••=	221
ProtocollE-ID	::=	228
ProtocollE-ID	::=	229
ProtocolIE-ID	::=	230

--- -- ...

id-RL-ReconfigurationFailureItem-RL-ReconfFailure	ProtocolIE-ID ::= 236
id-RL-Set-InformationItem-DM-Rprt	ProtocolIE-ID ::= 238
id-RL-Set-InformationItem-DM-Rsp	ProtocolIE-ID ::= 240
id-RL-Set-InformationItem-RL-FailureInd	ProtocolIE-ID ::= 241
id-RL-Set-InformationItem-RL-RestoreInd	ProtocolIE-ID ::= 242
id-S-CCPCH-Information	ProtocolIE-ID ::= 247
id-S-CPICH-Information	ProtocolIE-ID ::= 249
id-SCH-Information	ProtocolIE-ID ::= 251
id-S-SCH-Information	ProtocolIE-ID ::= 253
id-Secondary-CCPCHListIE-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 257
id-Secondary-CCPCH-parameterListIE-CTCH-SetupRqstTDD	ProtocolIE-ID ::= 258
id-Secondary-CCPCH-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID ::= 259
id-SecondaryCPICH-InformationItem-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 260
id-SecondaryCPICH-InformationItem-Cell-SetupRgstFDD	ProtocolIE-ID ::= 261
id-SecondaryCPICH-InformationList-Cell-ReconfRqstFDD	ProtocolIE-ID ::= 262
id-SecondaryCPICH-InformationList-Cell-SetupRgstFDD	ProtocolIE-ID ::= 263
id-SecondarySCH-Information-Cell-ReconfRostFDD	ProtocolIE-ID ::= 264
id-SecondarySCH-Information-Cell-SetupRgstFDD	ProtocolIE-ID ::= 265
id-SegmentInformationListIE-SystemInfoUpdate	ProtocolIE-ID ::= 266
id-sen	ProtocolIE-ID ::= 268
id-ShutdownTimer	ProtocolIE-ID ::= 269
id-Start-Of-Audit-Sequence-Indicator	ProtocolIE-ID ::= 114
id-Successful-RL-InformationRespItem-RL-AdditionFailureFDD	ProtocollE-ID ::= 270
id-Successful-RL-InformationRespItem-RL-SetupFailureFDD	ProtocolIE-ID ::= 271
id-SyncCase	ProtocolIE-ID ::= 274
id-SyncCaseIndicatorItem-Cell-SetupRastTDD-PSCH	ProtocolTE-TD ::= 275
id-T-Cell	ProtocolIE-ID ::= 276
id-TimeSlotConfigurationList-Cell-ReconfRastTDD	ProtocolIE-ID := 277
id-TimeSlotConfigurationList-Cell-SetupRastTDD	ProtocolIE-ID ::= 278
id-TransmissionDiversityApplied	ProtocolIE-ID := 279
id-TypeOfError	ProtocolIE-ID ::= 508
id-UARFCNforNt	ProtocolIE-ID ::= 280
id-UARFCNforNd	ProtocolIE-ID ::= 281
id-UARFCNforNu	ProtocolIE-ID ::= 282
id-IIICCTrCH-InformationItem-RL-SetupRastTDD	ProtocolIE-ID := 284
id-IIICCTrCH-InformationList-RL-AdditionRastTDD	ProtocolIE-ID ::= 285
id-UL-CCTrCH-InformationList-RL-SetupRgstTDD	ProtocolIE-ID ::= 288
id-UL-DPCH-InformationItem-RL-AdditionRgstTDD	ProtocolIE-ID ::= 289
id-UL-DPCH-InformationList-RL-SetupRgstTDD	ProtocolIE-ID ::= 291
id-IIIDPCH-Information-RL-ReconfPrepFDD	ProtocolIE-ID ::= 293
id-UL-DPCH-Information-RL-ReconfRgstFDD	ProtocolIE-ID ::= 294
id-IIIDPCH-Information-RL-SetupRastFDD	ProtocolIE-ID ::= 295
id-Unsuccessful-RL-InformationRespItem-RL-AdditionFailureFDD	ProtocolIE-ID ::= 296
id-Unsuccessful-RL-InformationRespltem-RL-SetupFailureFDD	ProtocolIE-ID ::= 297
id-Unsuccessful-RL-InformationResp-RL-AdditionFailureTDD	ProtocolIE-ID ::= 300
id-Unsuccessful-RL-InformationResp-RL-SetupFailureTDD	ProtocolIE-ID ::= 301
id-USCH-Information-Add	ProtocolIE-ID ::= 302
id-USCH-Information-DeleteList-RL-ReconfPrepTDD	ProtocolIE-ID := 304
id-USCH-Information-ModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 306
id-USCH-InformationResponse	ProtocolIE-ID ::= 309
id-USCH-Information	ProtocolTE-TD := 310
id-Active-Pattern-Sequence-Information	ProtocolIE-ID ::= 315
id-AICH-ParametersListIE-CTCH-ReconfRastFDD	ProtocolIE-ID ::= 316
TA HIGH LATAMOUGEDDIDUED GIGH NGOUNINGDUEDD	

id-AdjustmentRatio	ProtocolIE-ID ::= 317
id-AP-AICH-Information	ProtocolIE-ID ::= 320
id-AP-AICH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 322
id-FACH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 323
id-CauseLevel-PSCH-ReconfFailureTDD	ProtocolIE-ID ::= 324
id-CauseLevel-RL-AdditionFailureFDD	ProtocolIE-ID ::= 325
id-CauseLevel-RL-AdditionFailureTDD	ProtocolIE-ID ::= 326
id-CauseLevel-RL-ReconfFailure	ProtocolIE-ID ::= 327
id-CauseLevel-RL-SetupFailureFDD	ProtocolIE-ID ::= 328
id-CauseLevel-RL-SetupFailureTDD	ProtocolIE-ID ::= 329
id-CDCA-ICH-Information	ProtocolIE-ID ::= 330
id-CDCA-ICH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 332
id-Closed-Loop-Timing-Adjustment-Mode	ProtocolIE-ID ::= 333
id-CommonPhysicalChannelType-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 334
id-Compressed-Mode-Deactivation-Flag	ProtocolIE-ID ::= 335
id-CPCH-Information	ProtocolIE-ID ::= 336
id-CPCH-Parameters-CTCH-SetupRsp	ProtocolIE-ID ::= 342
id-CPCH-ParametersListIE-CTCH-ReconfRqstFDD	ProtocolIE-ID ::= 343
id-DL-CCTrCH-InformationAddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 346
id-DL-CCTrCH-InformationDeleteItem-RL-ReconfRgstTDD	ProtocolIE-ID ::= 347
id-DL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 348
id-DL-CCTrCH-InformationDeleteList-RL-ReconfRgstTDD	ProtocolIE-ID ::= 349
id-DL-CCTrCH-InformationModifyItem-RL-ReconfRgstTDD	ProtocolIE-ID ::= 350
id-DL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 351
id-DL-CCTrCH-InformationModifyList-RL-ReconfrastTDD	ProtocolIE-ID ::= 352
id-DL-DPCH-InformationAddListIE-RL-ReconfPrepTDD	ProtocolIE-ID ::= 353
id-DL-DPCH-InformationModify-AddListIE-RL-ReconfPrenTDD	ProtocolIE-ID ::= 355
id_DL_DDCH_InformationModify_AddBibels_KB_ReconfDrepTDD	ProtocoliE ID ::= 356
id-DL-DDCH-InformationModify_Deletebistic KL ReconfrepTDD	ProtocoliE-ID ··- 350
id-DL-TDC-Dattern01Count	ProtocolIE-ID ··- 358
id_DDC_Mode	ProtocoliE-ID ··- 450
id-DPC-Mode	ProtocoliE-ID ··- 450
id_DCClu_EDD_Common_Information	ProtocollE-ID ::= 94
id EnhangedDSGUDG	ProtocollE-ID ··- 94
	ProtocollE-ID ··= II0
id ENGU Deveneteralist (EGU CeturDer	Protocolle-ID ··= III
id Fach-ParametersList-Cich-Setuprsp	Protocolle-ID ··= 362
id DOW Deverations of the set of	Protocolle-ID ··= 369
id PCH Parameters-CICH-SetupRsp	Protocolle-ID ··= 3/4
id-PCH-Parametersitem-CiCH-ReconingstFDD	Protocolle-ID ··= 3/5
1d-PCPCH-Information	ProtocollE-ID ::= 3/6
1d-PICH-Parametersitem-CTCH-ReconingstrDD	ProtocollE-ID ::= 380
1d-PRACHCOnstant	ProtocollE-ID ::= 381
1d-PRACH-ParametersListIE-CTCH-RecontRqstFDD	ProtocolIE-ID ::= 383
1d-PUSCHConstant	ProtocolIE-ID ::= 384
id-RACH-Parameters-CTCH-SetupRsp	ProtocolIE-ID ::= 385
id-SSDT-CellIDforEDSCHPC	ProtocolIE-ID ::= 443
id-Synchronisation-Configuration-Cell-ReconfRqst	ProtocolIE-ID ::= 393
id-Synchronisation-Configuration-Cell-SetupRqst	ProtocolIE-ID ::= 394
id-Transmission-Gap-Pattern-Sequence-Information	ProtocolIE-ID ::= 395
id-UL-CCTrCH-InformationAddList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 396
id-UL-CCTrCH-InformationDeleteItem-RL-ReconfRqstTDD	ProtocolIE-ID ::= 397
id-UL-CCTrCH-InformationDeleteList-RL-ReconfPrepTDD	ProtocolIE-ID ::= 398
id-UL-CCTrCH-InformationDeleteList-RL-ReconfRqstTDD	ProtocolIE-ID ::= 399

id-UL-CCTrCH-InformationModifyItem-RL-ReconfRqstTDD	ProtocolIE-ID :	:= 40	0
id-UL-CCTrCH-InformationModifyList-RL-ReconfPrepTDD	ProtocolIE-ID :	:= 40	1
id-UL-CCTrCH-InformationModifyList-RL-ReconfRqstTDD	ProtocolIE-ID :	:= 402	2
id-UL-DPCH-InformationAddListIE-RL-ReconfPrepTDD	ProtocolIE-ID :	:= 40	3
id-UL-DPCH-InformationModify-AddListIE-RL-ReconfPrepTDD	ProtocolIE-ID :	:= 40	5
id-UL-DPCH-InformationModify-DeleteListIE-RL-ReconfPrepTDD	ProtocolIE-ID :	:= 40	б
id-UL-DPCH-InformationModify-ModifyListIE-RL-ReconfPrepTDD	ProtocolIE-ID :	:= 40	7
id-Unsuccessful-PDSCHSetItem-PSCH-ReconfFailureTDD	ProtocolIE-ID :	:= 408	8
id-Unsuccessful-PUSCHSetItem-PSCH-ReconfFailureTDD	ProtocolIE-ID :	:= 409	9
id-CommunicationContextInfoItem-Reset	ProtocolIE-ID :	:= 412	2
id-CommunicationControlPortInfoItem-Reset	ProtocolIE-ID :	:= 414	4
id-ResetIndicator	ProtocolIE-ID :	:= 410	б
id-TFC12-Bearer-Information-RL-SetupRgstFDD	ProtocolIE-ID :	:= 41	7
id-TFC12-BearerSpecificInformation-RL-ReconfPrepFDD	ProtocolIE-ID :	:= 413	8
id-TEC12-BearerInformationResponse	ProtocolIE-ID :	:= 41	9
id-TimingAdvanceApplied	ProtocolIE-ID :	:= 28	7
id-CENReportingIndicator	ProtocolIE-ID :	:= 6	
id-SFNReportingIndicator	ProtocolIE-ID :	:= 11	
id-InnerLoonDLPCStatus	ProtocolIE-ID :	:= 12	
id-TimeslotISCDInfo	ProtocolIE-ID :	:= 28	z
id-DICH-DarametersItem-CTCH-SetupRestTDD	ProtocolIE-ID :	:= 16	7
id_DDACH_DarametersTiem_CTCH_SetupDastTDD	ProtocolIE-ID :	·- 20	<i>'</i>
id CCTrCU Information Element of Language December 201	ProtocoliE-ID :	·- 20	
id CCTrCH InformationItem RI PartareInd	ProtocoliE-ID :	·- 10	
	ProtocoliE-ID :	·- 47	Λ
	Protocolle-ID :	·= 420	1
id Collement There sylicad Justimited Stills	Protocolle-ID :	·= 42.	т С
id-CellSyncBurstIransInit-CellSyncInitiationRegStrDD	Protocolle-ID ·	•= 42.	2
id cellors provide a serie intercent synchronic tellors of Deseries	Protocolle-ID ·	•= 42.	3
id-CellSyncBurstfranskeconiguration-CellSynckeconikgstibb	Protocolle-ID ·	•= 424	ч г
id-CellSyncBurstMeaskeconfiguration-CellSynckeconfigstTDD	ProtocollE-ID :	•= 42	5
id-CellsyncBurstTransInfoList-CellsyncReconfreqstTDD	ProtocollE-ID :	:= 420	э
id-CellSyncBurstMeasInfoList-CellSyncReconfkqstTDD	ProtocollE-ID :	:= 42	/
1d-CellSyncBurstTranskeconfInto-CellSyncReconfRqstTDD	ProtocollE-ID :	:= 423	8
id-CellSyncInto-CellSyncReprtTDD	ProtocolIE-ID :	:= 42	9
1d-CSBTransmissionID	ProtocollE-ID :	:= 430	0
id-CSBMeasurementID	ProtocolIE-ID :	:= 43	1
id-IntStdPhCellSyncIntoItem-CellSyncReprtTDD	ProtocolIE-ID :	:= 43	2
id-NCyclesPerSFNperiod	ProtocolIE-ID :	:= 43	3
id-NRepetitionsPerCyclePeriod	ProtocolIE-ID :	:= 43	4
id-SyncFrameNumber	ProtocolIE-ID :	:= 43	7
id-SynchronisationReportType	ProtocolIE-ID :	:= 43	8
id-SynchronisationReportCharacteristics	ProtocolIE-ID :	:= 43	9
id-Unsuccessful-cell-InformationRespItem-SyncAdjustmntFailureTDD	ProtocolIE-ID :	:= 44	0
id-LateEntranceCellSyncInfoItem-CellSyncReprtTDD	ProtocolIE-ID :	:= 119	9
id-ReferenceClockAvailability	ProtocolIE-ID :	:= 43	5
id-ReferenceSFNoffset	ProtocolIE-ID :	:= 43	б
id-InformationExchangeID	ProtocolIE-ID :	:= 44	4
id-InformationExchangeObjectType-InfEx-Rqst	ProtocolIE-ID :	:= 44	5
id-InformationType	ProtocolIE-ID :	:= 44	б
id-InformationReportCharacteristics	ProtocolIE-ID :	:= 44	7
id-InformationExchangeObjectType-InfEx-Rsp	ProtocolIE-ID :	:= 448	8
id-InformationExchangeObjectType-InfEx-Rprt	ProtocolIE-ID :	:= 449	9
id-IPDLParameter-Information-Cell-ReconfRqstFDD	ProtocolIE-ID :	:= 45	1

	-	. – .
id-IPDLParameter-Information-Cell-SetupRqstFDD	ProtocolIE-ID :	:= 452
id-IPDLParameter-Information-Cell-ReconfRqstTDD	ProtocolIE-ID :	:= 453
id-IPDLParameter-Information-Cell-SetupRqstTDD	ProtocolIE-ID :	:= 454
id-DL-DPCH-LCR-Information-RL-SetupRqstTDD	ProtocolIE-ID :	:= 74
id-DL-DPCH-LCR-InformationList-RL-SetupRqstTDD	ProtocolIE-ID :	:= 75
id-DwPCH-LCR-Information	ProtocolIE-ID :	:= 78
id-DwPCH-LCR-Information-AuditRsp	ProtocolIE-ID :	:= 80
id-DwPCH-LCR-InformationList-AuditRsp	ProtocolIE-ID :	:= 90
id-DwPCH-LCR-Information-Cell-SetupRqstTDD	ProtocolIE-ID :	:= 97
id-DwPCH-LCR-Information-Cell-ReconfRqstTDD	ProtocolIE-ID :	:= 99
id-DwPCH-LCR-InformationList-ResourceStatusInd	ProtocolIE-ID :	:= 101
id-maxFACH-Power-LCR-CTCH-SetupRqstTDD	ProtocolIE-ID :	:= 154
id-maxFACH-Power-LCR-CTCH-ReconfRqstTDD	ProtocolIE-ID :	:= 174
id-FPACH-LCR-Information	ProtocolIE-ID :	:= 290
id-FPACH-LCR-Information-AuditRsp	ProtocolIE-ID :	:= 292
id-FPACH-LCR-InformationList-AuditRsp	ProtocolIE-ID :	:= 310
id-FPACH-LCR-InformationList-ResourceStatusInd	ProtocolIE-ID :	:= 311
id-FPACH-LCR-Parameters-CTCH-SetupRqstTDD	ProtocolIE-ID :	:= 312
id-FPACH-LCR-ParametersItem-CTCH-SetupRqstTDD	ProtocolIE-ID :	:= 313
id-FPACH-LCR-Parameters-CTCH-ReconfRqstTDD	ProtocolIE-ID :	:= 314
id-PCCPCH-LCR-Information-Cell-SetupRqstTDD	ProtocolIE-ID :	:= 456
id-PCH-Power-LCR-CTCH-SetupRqstTDD	ProtocolIE-ID :	:= 457
id-PCH-Power-LCR-CTCH-ReconfRqstTDD	ProtocolIE-ID :	:= 458
id-PICH-LCR-Parameters-CTCH-SetupRgstTDD	ProtocolIE-ID :	:= 459
id-PICH-LCR-ParametersItem-CTCH-SetupRgstTDD	ProtocolIE-ID :	:= 460
id-PRACH-LCR-ParametersList-CTCH-SetupRostTDD	ProtocolIE-ID :	:= 461
id-PRACH-LCR-ParametersListIE-CTCH-SetupRgstTDD	ProtocolIE-ID :	:= 462
id-RL-InformationResponse-LCR-RL-SetupRspTDD	ProtocolIE-ID :	:= 463
id-Secondary-CCPCH-LCR-parameterListIE-CTCH-SetupRgstTDD	ProtocolIE-ID :	:= 464
id-Secondary-CCPCH-LCR-parameterList-CTCH-SetupRostTDD	ProtocolIE-ID :	:= 465
id-TimeSlotConfigurationList-LCR-Cell-ReconfRestTDD	ProtocolIE-ID :	:= 466
id-TimeSlotConfigurationList-LCR-Cell-SetupRqstTDD	ProtocolIE-ID :	:= 467
id-TimeslotISCP-LCR-InfoList-RL-SetupRastTDD	ProtocolIE-ID :	:= 468
id-TimeSlotLCR-CM-Rast	ProtocolIE-ID :	:= 469
id-IIIDPCH-I.CR-Information-RL-SetupRestTDD	ProtocolIE-ID :	:= 470
id-IIIDPCH-I.CR-InformationList-RL.SetupRastTDD	ProtocolIE-ID :	:= 471
id-DL-DPCH-InformationItem-LCR-RL-AdditionRestTDD	ProtocolIE-ID :	:= 472
id-IIIDPCH-InformationItem-LCR-RL-AdditionRgstTDD	ProtocolIE-ID :	:= 473
id-TimeslotISCP-InformationList-LCR-RL-AdditionRgsTDD	ProtocolIE-ID :	:= 474
id_DL_DDCH_LCP_InformationIddList_PL_PeconfDrenTDD	ProtocolIE-ID :	:= 475
id_DL_DDCH_LCR_InformationAddListIF_RL_ReconforenTDD	ProtocolIE-ID :	:= 476
id_DL_DECH_ICP_INFormationModifyCladdList_PL_PegonfPrepTD	ProtocolIE-ID :	·- 477
id_DL_DECH_LCP_InformationModify_AddList N=DL_PegonfPrepTDD	ProtocolIE-ID :	·- 178
id-Di-Timoslot-InformationModify-Addistre-Ri-Reconferent	ProtocoliE-ID :	·- 470
id TimeslotISCDIRfolist ICD DL DC PastTDD	ProtocollE-ID :	·- 4/9
id III DDGU ISCENICOLISCELICKEDI PC-RGSCIDD	ProtocollE-ID :	·= 400
id III DDCI ICE Informationiddictie AL Accontepidd	ProtocollE-ID :	·= 401
id UL DDCH-LCR-IIIOIMationAddistict	Protocolle-ID :	·= 402
Id-UL-DPCH-LCR-INIOTMALIONMODILY-ADDLISC	Protocolle-ID ·	·= 483
id UL TimoglotICE Information DL DeserforsTED	ProtocollE-ID :	·= 484
id DDGGU Addinformation LCD DGGU Discrift	ProtocollE-ID :	•= 485
IG-PDSCH-AddInformation_LCR-PSCH-ReconfRqst	ProtocollE-ID :	•= 486
10-PDSCH-Addiniormation-LCK-AddistiE-PSCH-RecontRest	ProtocollE-ID :	•= 487
1d-PDSCH-ModifyInformation-LCR-PSCH-ReconfRqst	ProtocollE-ID :	:= 488

id-PDSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst	ProtocolIE-ID ::=	489
id-PUSCH-AddInformation-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::=	490
id-PUSCH-AddInformation-LCR-AddListIE-PSCH-ReconfRqst	ProtocolIE-ID ::=	491
id-PUSCH-ModifyInformation-LCR-PSCH-ReconfRqst	ProtocolIE-ID ::=	492
id-PUSCH-ModifyInformation-LCR-ModifyListIE-PSCH-ReconfRqst	ProtocolIE-ID ::=	493

END

<u>Annex B (informative)</u> Guidelines for Usage of the Criticality Diagnostics IE

B.1 EXAMPLE MESSAGE Layout

Assume the following message format:

IE/Group Name	Presence	<u>Range</u>	IE type	Semantics	Criticality	Assigned
			and	description		Criticality
			<u>referenc</u>			
			<u>e</u>			
Message Type	M				YES	reject
Transaction ID	M				Ξ	
A	M				YES	reject
B	M				YES	<u>reject</u>
<u>>E</u>		<u>1<maxe></maxe></u>			EACH	ignore
<u>>>F</u>		<u>1<maxf></maxf></u>			-	
<u>>>>G</u>		<u>03,</u>			<u>EACH</u>	ignore
<u>>>H</u>		<u>1<maxh></maxh></u>			<u>EACH</u>	ignore
>>>G		<u>03,</u>			<u>EACH</u>	ignore and
						notify
<u>>>G</u>	M				YES	<u>reject</u>
<u>>>J</u>		<u>1<maxj></maxj></u>			-	
<u>>>>G</u>		<u>03,</u>			<u>EACH</u>	<u>reject</u>
<u>C</u>	M				YES	reject
<u>>K</u>		1 <maxk></maxk>			EACH	ignore and
						notify
<u>>>L</u>		1 <maxl></maxl>			-	
<u>>>>M</u>	0				<u>-</u>	
<u>D</u>	M				<u>YES</u>	<u>reject</u>

Note 1.The IEs F, J, and L do not have assigned criticality. The IEs F, J, and L are consequently realised as the
ASN.1 type SEQUENCE OF of "ordinary" ASN.1 type, e.g. INTEGER. On the other hand, the repeatable
IEs with assigned criticality are realised as the ASN.1 type SEQUENCE OF of an IE object, e.g.
ProtocolIE-Single-Container.

For the corresponding ASN.1 layout, see subclause B.4.

B.2 Example on a Received EXAMPLE MESSAGE

Assume further more that a received message based on the above tabular format is according to the figure below.



B.3 Content of Criticality Diagnostics



Figure B.2: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE J shown in the figure B.2 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 4.
<u>IE ID</u>	id-G	IE ID from the reported level, i.e. level 4.
Repetition	<u>11</u>	Repetition number on the reported level, i.e. level 4.
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE this is
		the eleventh occurrence of IE G within the IE E (level 2).
Type of Error	not	
	<u>underst</u>	
	<u>ood</u>	
Message Structur	e, first repe	etition
<u>>IE ID</u>	id-B	IE ID from level 1.
Message Structur	e, second	repetition
<u>>IE ID</u>	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.
Number		

Note 2. The IE J on level 3 cannot be included in the *Message Structure* IE since they have no criticality of their <u>own.</u>

Note 3. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).



Included in the *Information Element Criticality Diagnostics* IE: a) *IE ID* IE

b) Repetition Number IE

Figure B.3: Example of a received NBAP message containing a not comprehended IE

If there is an error within the second instance (marked as grey) in the sequence (IE L in the tabular format) on level 3 below IE K in the structure shown in the figure B.3 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	<u>ignore</u>	Criticality for IE on the reported level, i.e. level 2.
	and	
	notify	
IE ID	<u>id-K</u>	IE ID from the reported level, i.e. level 2.
Repetition	3	Repetition number on the reported level, i.e. level 2.
Number		
Type of Error	not	
	underst	
	ood	
Message Structur	e, first rep	etition
>IE ID	id-C	IE ID from the lowest level above the reported level, i.e. level 1.

Note 4. The IE L on level 3 cannot be reported individually included in the *Message Structure* IE since it has no criticality of its own.



Included in the Information Element Criticality Diagnostics IE: a) IE ID IE

b) Repetition Number IE

Figure B.4: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE H shown in the figure B.4 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 4.
IE ID	id-G	IE ID from the reported level, i.e. level 4.
Repetition	<u>2</u>	Repetition number on the reported level, i.e. level 4.
Number		
Type of Error	<u>not</u>	
	<u>underst</u>	
	<u>ood</u>	
Message Structur	<u>e, first repe</u>	etition
<u>>IE ID</u>	<u>id-B</u>	IE ID from level 1.
Message Structur	e, second	<u>repetition</u>
<u>>IE ID</u>	id-E	IE ID from level 2.
>Repetition	<u>3</u>	Repetition number from level 2.
Number		
Message Structur	e, third rep	<u>betition</u>
>IE ID	id-H	IE ID from the lowest level above the reported level, i.e. level 3.
>Repetition	1	Repetition number from the lowest level above the reported level, i.e. level 3.
Number		

Note 5. The repetition number of level 4 indicates the number of repetitions of IE G received up to the detected erroneous repetition, counted below the same instance of the previous level with assigned criticality (instance 1 of IE H on level 3).



Included in the Information Element Criticality Diagnostics IE: a) IE ID IE

b) Repetition Number IE

Figure B.5: Example of a received NBAP message containing a not comprehended IE

If there is an error within the instance marked as grey in the IE G in the IE E shown in the figure B.5 above, this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	Comment
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.
IE ID	id-G	IE ID from the reported level, i.e. level 3.
Repetition	<u>5</u>	Repetition number on the reported level, i.e. level 3.
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE this is
		the fifth occurrence of IE G within the IE E (level 2).
Type of Error	not	
	<u>underst</u>	
	ood	
Message Structur	e, first repe	etition
<u>>IE ID</u>	id-B	IE ID from level 1.
Message Structur	e, second	repetition_
>IE ID	id-E	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.
Number		

Note 6. The repetition number of the reported IE indicates the number of repetitions of IE G received up to the detected erroneous repetition, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).



Included in the Information Element Criticality Diagnostics IE: a) IE ID IE

b) Repetition Number IE

Figure B.6: Example of a received NBAP message with a missing IE

If the instance marked as grey in the IE G in the IE E shown in the figure B.6 above, is missing this will be reported within the *Information Element Criticality Diagnostics* IE within the *Criticality Diagnostics* IE as follows:

IE name	Value	<u>Comment</u>
IE Criticality	reject	Criticality for IE on the reported level, i.e. level 3.
<u>IE ID</u>	id-G	IE ID from the reported level, i.e. level 3.
Repetition	<u>4</u>	Repetition number up to the missing IE on the reported level, i.e. level 3.
Number		(Since the IE E (level 2) is the lowest level included in the Message Structure IE there
		have been four occurrences of IE G within the IE E (level 2) up to the missing
		occurrence.
Type of Error	missing	
Message Structur	e, first repe	etition
<u>>IE ID</u>	id-B	IE ID from level 1.
Message Structur	e, second	repetition
<u>>IE ID</u>	<u>id-E</u>	IE ID from the lowest level above the reported level, i.e. level 2.
>Repetition	3	Repetition number from the lowest level above the reported level, i.e. level 2.
Number		

Note 7. The repetition number of the reported IE indicates the number of repetitions of IE G received up to but not including the missing occurrence, counting all occurrences of the IE G below the same instance of the previous level with assigned criticality (instance 3 of IE E on level 2).

B.4 ASN.1 of EXAMPLE MESSAGE

ExampleMessage ::= SEQUENCE {	
ProtocolIEs ProtocolIE-Container	{{ExampleMessage-IEs}},
<u>}</u>	
ExampleMessage-IEs NBAP-PROTOCOL-IES ::= {	
{ ID id-A CRITICALITY reject TYPE A PRESENCE	mandatory}
{ ID id-B CRITICALITY reject TYPE B PRESENCE	mandatory}
{ ID id-C CRITICALITY reject TYPE C PRESENCE { ID id-D CRITICALITY reject TYPE D PRESENCE	mandatory}
B ::= SEOUENCE {	
e E-List,	
iE-Extensions ProtocolExtensionContainer { {B-	<pre>ExtIEs } } OPTIONAL,</pre>
<u>}</u>	
B-ExtIES NBAP-PROTOCOL-EXTENSION ::= {	
E-LIST ::= SEQUENCE (SIZE (1maxe)) OF Protocolle-S	lingle-Container { {E-IES} }
E-IES NBAP-PROTOCOL-IES ::= {	
{ ID id-E CRITICALITY ignore TYPE E PRESENCE	mandatory }
E ::= SEQUENCE {	
<u>f</u> F-List,	
g G-Listl,	
j J-List,	
iE-Extensions ProtocolExtensionContainer { {E-	ExtIEs} } OPTIONAL,
$\frac{1}{2}$	
$E-EXCIES NBAP-PROIOCOL-EXTENSION \cdots = \{$	
<u>}</u>	
F-List := SFOURNOR (SIZE (1 mave)) OF F	
<u>F</u> ::= SEQUENCE {	
gG-List2 OPTIONAL, iE-Extensions ProtocolExtensionContainer { {E-	ExtIEs} } OPTIONAL.
<u>}</u>	
F-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {	
<u>}</u>	
G-List2 ::= SEQUENCE (SIZE (13,)) OF ProtocolI	E-Single-Container { {G2-IEs} }
<u>G2-LES NBAP-PROTOCOL-LES ::= {</u> { ID id-G CRITICALITY ignore TYPE G PRESENCE	mandatory }
]	
U. List :- CEOUENCE (STZE (1 morel)) OF Protocolle	lingle Container ([II IEa])
H-LIST= SEQUENCE (SIZE (IMAXH)) OF Protocolle-S	ingle-container { {H-IES} }
H-IES NBAP-PROTOCOL-IES ::= {	
<pre>{ ID id-H CRITICALITY ignore TYPE H PRESENCE }</pre>	mandatory }
<i>L</i>	
H ::= SEQUENCE {	
g G-LIST3 OPTIONAL, iE-Extensions ProtocolExtensio	nContainer { {H-ExtIEs} } OPTIONAL.
Ł	
H-ExtIEs NBAP-PROTOCOL-EXTENSION ::= {	
<u></u>	
<u>}</u>	

546

G-List3 ::= SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { G3-IEs} } G3-IES NBAP-PROTOCOL-IES ::= { { ID id-G CRITICALITY notify TYPE G PRESENCE mandatory } G-List1 ::= ProtocolIE-Single-Container { {G1-IEs} } G1-IES NBAP-PROTOCOL-IES ::= { { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory } J-List ::= SEQUENCE (SIZE (1..maxJ)) OF J J ::= SEQUENCE { g G-List4 OPTIONAL, iE-Extensions ProtocolExtensionContainer { {J-ExtIEs} } OPTIONAL, g } NBAP-PROTOCOL-EXTENSION ::= { J-ExtIEs ... } G-List4 := SEQUENCE (SIZE (1..3, ...)) OF ProtocolIE-Single-Container { [G4-IEs} } G4-IES NBAP-PROTOCOL-IES ::= { { ID id-G CRITICALITY reject TYPE G PRESENCE mandatory } } $C ::= SEQUENCE \{$ k K-List, iE-Extensions ProtocolExtensionContainer { {C-ExtIEs} } OPTIONAL, . . . } C-ExtIEs NBAP-PROTOCOL-EXTENSION ::= { • • • } K-List ::= SEQUENCE (SIZE (1..maxK)) OF ProtocolIE-Single-Container { {K-IEs} } K-IES NBAP-PROTOCOL-IES ::= { { ID id-K CRITICALITY notify TYPE K PRESENCE mandatory } } K ::= SEQUENCE { L-List, ٦ iE-Extensions ProtocolExtensionContainer { {K-ExtIEs} } OPTIONAL, . . . } K-ExtIEs NBAP-PROTOCOL-EXTENSION ::= { • • • } L-List ::= SEQUENCE (SIZE (1..maxL)) OF L L ::= SEQUENCE {
 m
 M
 OPTIONAL,

 iE-Extensions
 ProtocolExtensionContainer { {L-ExtIEs} }
 OPTIONAL,
 m • • • } L-ExtIEs NBAP-PROTOCOL-EXTENSION ::= { ... } ExampleMessage-Extensions NBAP-PROTOCOL-EXTENSION ::= { . . . }

3GPP TSG-RAN WG3 Meeting #20 Beijing, China, April 2nd – April 6th, 2001

CR-Form-v3 CHANGE REQUEST ж 25.433 CR 391 ж rev ж Current version: ж 3.5.0For **HELP** on using this form, see bottom of this page or look at the pop-up text over the **#** symbols. ME/UE Radio Access Network X Core Network Proposed change affects: # (U)SIM Title: **#** Error Indication for reporting of logical error Source: 第 R-WG3 Work item code: # TEI Date: # 2001-04-23 Category: жF Release: # R99 Use one of the following categories: Use one of the following releases: F (essential correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (Addition of feature), R97 (Release 1997) **C** (Functional modification of feature) R98 (Release 1998) D (Editorial modification) (Release 1999) R99 Detailed explanations of the above categories can REL-4 (Release 4) be found in 3GPP TR 21.900. REL-5 (Release 5) In clause 10.4 it is not clear that when reporting a logical error with the ERROR Reason for change: # INDICATION message, the Procedure ID IE, the Triggering Message IE and the Transaction ID IE within the Criticality Diagnostics IE must be included in order to identify the message containing the logical error. Summary of change: # Text in clause 10.4 is updated in order to clarify that the *Procedure ID* IE, the Triggering Message IE and the Transaction ID IE within the Criticality Diagnostics IE must be included in order to identify the message containing the logical error. It will not be clear which information to include in ERROR INDICATION when **Consequences** if ж reporting a logical error, which may lead to different implementations. not approved: Additional information: The proposed change is backwards compatible. **#** 9.2.1.17, 10.4 Clauses affected: Other specs **X** Other core specifications # 25.433 CR392 REL-4 Test specifications affected: **O&M** Specifications

How to create CRs using this form:

ж

Other comments:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.
9.2.1.17 Criticality Diagnostics

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Procedure ID		01		Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error
>Procedure Code	М		INTEGER (0255)	
>Ddmode	M		ENUMERAT ED (FDD, TDD, Common)	Common = common to FDD and TDD.
Triggering Message	0		ENUMERAT ED(initiating message, successful outcome, unsuccessful outcome, outcome)	The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication.
Procedure Criticality	0		ENUMERAT ED(reject, ignore, notify)	This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure). The value 'ignore' shall never be used.
Transaction ID	0		Transaction ID 9.2.1.62	
Information Element Criticality Diagnostics		0 to <maxnoof errors></maxnoof 		
>IE Criticality	М		ENUMERAT ED(reject, ignore, notify)	The IE Criticality is used for reporting the criticality of the triggering IE. The value 'ignore' shall never be used.
>IE ID	М		INTEGER (065535)	The IE ID of the not understood or missing IE
>Repetition Number	0		ÎNTEGER (1256)	The repetition number of the not understood IE within the bottom most repetition level identified by the message structure IE, if applicable
>Message Structure	0		9.2.1.45A	

Explanation
Maximum no. of IE errors allowed to be reported with a single message.

10.4 Logical Error

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

Class 1:

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

Typical cause values are:

- Protocol Causes:
 - 1. Semantic Error
 - 2. Message not compatible with receiver state

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

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

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. <u>The *Procedure ID* IE</u>, the *Triggering* <u>Message IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.</u>

3GPP TSG-RAN WG3 Meeting #20 Beijing, China, April 2nd – April 6th, 2001

CR-Form-v3 CHANGE REQUEST ж 25.433 CR 392 ж rev ж Current version: ж 4.0.0 For **HELP** on using this form, see bottom of this page or look at the pop-up text over the **#** symbols. ME/UE Radio Access Network X Core Network Proposed change affects: # (U)SIM Title: **#** Error Indication for reporting of logical error Source: 第 R-WG3 Work item code: # TEI Date: # 2001-04-23 Category: ЖА Release: # REL-4 Use one of the following categories: Use one of the following releases: F (essential correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) **B** (Addition of feature), R97 (Release 1997) **C** (Functional modification of feature) R98 (Release 1998) D (Editorial modification) (Release 1999) R99 Detailed explanations of the above categories can REL-4 (Release 4) be found in 3GPP TR 21.900. REL-5 (Release 5) In clause 10.4 it is not clear that when reporting a logical error with the ERROR Reason for change: # INDICATION message, the Procedure ID IE, the Triggering Message IE and the Transaction ID IE within the Criticality Diagnostics IE must be included in order to identify the message containing the logical error. Summary of change: # Text in clause 10.4 is updated in order to clarify that the *Procedure ID* IE, the Triggering Message IE and the Transaction ID IE within the Criticality Diagnostics IE must be included in order to identify the message containing the logical error. It will not be clear which information to include in ERROR INDICATION when **Consequences** if ж reporting a logical error, which may lead to different implementations. not approved: Additional information: The proposed change is backwards compatible. **#** 9.2.1.17, 10.4 Clauses affected: Other specs **X** Other core specifications # 25.433 CR391 R99 Test specifications affected: **O&M** Specifications

How to create CRs using this form:

ж

Other comments:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.

9.2.1.17 Criticality Diagnostics

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

IE/Group Name	Presence	Range	IE type and reference	Semantics description
Procedure ID		01		Procedure ID is to be used if Criticality Diagnostics is part of Error Indication procedure, and not within the response message of the same procedure that caused the error
>Procedure Code	М		INTEGER (0255)	
>Ddmode	M		ENUMÉRAT ED (FDD, TDD, Common)	Common = common to FDD and TDD.
Triggering Message	0		ENUMERAT ED(initiating message, successful outcome, unsuccessful outcome, outcome,	The Triggering Message is used only if the Criticality Diagnostics is part of Error Indication.
Procedure Criticality	0		ENUMERAT ED(reject, ignore, notify)	This Procedure Criticality is used for reporting the Criticality of the Triggering message (Procedure). The value 'ignore' shall never be used.
Transaction ID	0		Transaction ID 9.2.1.62	
Information Element Criticality Diagnostics		0 to <maxnoof errors></maxnoof 		
>IE Criticality	M		ENUMERAT ED(reject, ignore, notify)	The IE Criticality is used for reporting the criticality of the triggering IE. The value 'ignore' shall never be used.
>IE ID	М		INTEGER (065535)	The IE ID of the not understood or missing IE
>Repetition Number	0		INTEGER (1256)	The repetition number of the not understood IE within the bottom most repetition level identified by the message structure IE, if applicable
>Message Structure	0		9.2.1.45A	

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

10.4 Logical Error

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

Class 1:

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

Typical cause values are:

- Protocol Causes:
 - 1. Semantic Error
 - 2. Message not compatible with receiver state

Where the logical error is contained in a request message of a class 1 procedure, and the procedure does not have a failure message, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. The *Procedure ID* IE, the *Triggering Message* IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.

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

Class 2:

Where the logical error occurs in a message of a class 2 procedure, the procedure shall be terminated and the ERROR INDICATION procedure shall be initiated with an appropriate cause value. <u>The *Procedure ID* IE</u>, the *Triggering* <u>Message IE and the *Transaction ID* IE within the *Criticality Diagnostics* IE shall then be included in order to identify the message containing the logical error.</u>

3GPP TSG-RAN WG3 Meeting #21 Busan, Korea, May 21st – 25th, 2001

CR-Form-v3 CHANGE REQUEST ж Current version: 25.433 CR 393 ₩ rev ж ж 3.5.0For **HELP** on using this form, see bottom of this page or look at the pop-up text over the **#** symbols. ME/UE Radio Access Network X Core Network Proposed change affects: # (U)SIM **%** Clarification IEs order rule Title: Source: R-WG3 æ Date: # May 2001 Work item code: # TEI Category: жF Release: # R99 Use one of the following categories: Use one of the following releases: F (essential correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (Addition of feature), R97 (Release 1997) **C** (Functional modification of feature) R98 (Release 1998) D (Editorial modification) R99 (Release 1999) Detailed explanations of the above categories can REL-4 (Release 4) be found in 3GPP TR 21.900. REL-5 (Release 5) Reason for change: # Introduction of new IEs in the extension containers results in different message contents in different specification versions. To ensure interoperability the receiving node shall be able to interprete correctly messages coming from nodes of higher specification versions. Therefore when determining the right order of the IEs the receiving node shall ignore IEs specified only in the higher specification version and consider only IEs of it's own specification version. Summary of change: # A clarification to consider only IEs specified in the specification version of the receiving node when determining the right order of the IEs has been added into chapter 'Handling of Unknown, Unforeseen and Erroneous Protocol Data'. # In case this CR is not approved there might be interoperability problems between Consequences if nodes of different specification versions. not approved: This change is backward compatible. Clauses affected: **# 10.3.6** Other specs **X** Other core specifications # CR280 R99 TS 25.413, CR281 Rel4 TS 25.413, CR039 R99 TS 25.419,

CR040 Rel4 TS 25.419,

CR344 R99 TS 25.423,

CR345 Rel4 TS 25.423,

CR394 Rel4 TS 25.433.

affected:	Test specifications O&M Specifications
Other comments:	ж

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.

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

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

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing IEs or IE groups in wrong order or with too many occurrences, the receiving node shall terminate the procedure and initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".
- If a *response* message is received containing IEs or IE groups in wrong order or with too many occurrences, the receiving node shall initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

3GPP TSG-RAN WG3 Meeting #21 Busan, Korea, May 21st – 25th, 2001

CR-Form-v3 CHANGE REQUEST ж 25.433 CR 394 ₩ rev ж Current version: ж 4.0.0 For **HELP** on using this form, see bottom of this page or look at the pop-up text over the **#** symbols. Radio Access Network X Core Network Proposed change affects: # (U)SIM ME/UE Clarification IEs order rule Title: Source: R-WG3 æ Work item code: ₩ May 2001 TEI Date: X Category: ж A Release: # REL-4 Use one of the following categories: Use one of the following releases: F (essential correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (Addition of feature), R97 (Release 1997) **C** (Functional modification of feature) R98 (Release 1998) D (Editorial modification) R99 (Release 1999) Detailed explanations of the above categories can REL-4 (Release 4) be found in 3GPP TR 21.900. REL-5 (Release 5) Reason for change: # Introduction of new IEs in the extension containers results in different message contents in different specification versions. To ensure interoperability the receiving node shall be able to interprete correctly messages coming from nodes of higher specification versions. Therefore when determining the right order of the IEs the receiving node shall ignore IEs specified only in the higher specification version and consider only IEs of it's own specification version. Summary of change: # A clarification to consider only IEs specified in the specification version of the receiving node when determining the right order of the IEs has been added into chapter 'Handling of Unknown, Unforeseen and Erroneous Protocol Data'. # In case this CR is not approved there might be interoperability problems between Consequences if nodes of different specification versions. not approved: This change is backward compatible. Clauses affected: **# 10.3.6**

		V		
Other specs	ж	Х	Other core specifications #	CR280 R99 TS 25.413,
				CR281 Rel4 TS 25.413,
				CR039 R99 TS 25.419,
				CR040 Rel4 TS 25.419,
				CR344 R99 TS 25.423,
				CR345 Rel4 TS 25.423,
				CR393 R99 TS 25.433.

affected:	Test specifications O&M Specifications
Other comments: #	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.

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

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

- If a message *initiating* a procedure is received containing IEs or IE groups in wrong order or with too many occurrences, none of the functional requests of the message shall be executed. The receiving node shall reject the procedure and report the cause value "Abstract Syntax Error (Falsely Constructed Message)" using the message normally used to report unsuccessful outcome of the procedure. In case the information received in the initiating message was insufficient to determine a value for all IEs that are required to be present in the message used to report the unsuccessful outcome of the procedure, the receiving node shall instead terminate the procedure and initiate the Error Indication procedure.
- If a message *initiating* a procedure that does not have a message to report unsuccessful outcome is received containing IEs or IE groups in wrong order or with too many occurrences, the receiving node shall terminate the procedure and initiate the Error Indication procedure, and use cause value "Abstract Syntax Error (Falsely Constructed Message)".
- If a *response* message is received containing IEs or IE groups in wrong order or with too many occurrences, the receiving node shall initiate local error handling.

When determining the correct order only the IEs specified in the specification version used by the receiver shall be considered.

3GPP TSG-RAN3 Meeting #21 Busan, South Korea, 21st – 25th May, 2001

R3-011368

											CR-Form-v3
			CH	ANGE	RE	QUE	EST	-			
ж	25.	. <mark>433</mark>	CR <mark>395</mark>	5	೫ re∖	-	ж	Current ve	ersion:	3.5.0	ж
For <u>HELP</u> on u	ısing t	his for	m, see botte	om of this	page (or look	at th	e pop-up te	xt over	the X sy	mbols.
Proposed change	affect	ts: #	(U)SIM	ME/	UE	Ra	dio A	ccess Netwo	ork X	Core N	etwork
Title: #	Mo	dificatio	on of Radio	Link Setu	p and	Radio	Link	Addition pro	ocedure	text	
Source: ೫	R-V	VG3									
Work item code: Ж								Date:	ж <mark>Ма</mark>	y 2001	
Category: ж	F							Release:	ж <mark> R9</mark>	9	
	Use of the formation of	<u>one</u> of t F (esse A (corr B (Ada C (Fun D (Edit iled exp und in :	the following ential correct responds to a lition of featu actional modifica olanations of 3GPP TR 21	categories: ion) a correction re), fication of fe ation) the above o .900.	<i>in an e</i> eature) categor	earlier i ies car	<i>releas</i> า	Use <u>one</u> 2 e) R96 R97 R98 R99 REL-4 REL-5	of the fo (GSM (Rele (Rele (Rele (Rele (Rele 5 (Rele	llowing rel 1 Phase 2) ase 1996) ase 1997) ase 1998) ase 1999) ase 4) ase 5)	eases:
Reason for change	e: #	As an Radio impro	outcome o Link Setur oved by usir	of the RNS o and Rad ng subhea	SAP re io Link dings.	view c Addit It was	luring ion p agree	RAN3 #18 rocedure te ed that this	it was xt need applies	agreed th s to have to 25.433	hat the its layout 3 as well.
Summary of chang	уе: Ж	The F modificer	Radio Link S fied by usin octions are a	Setup and g subheac applied to t	Radio dings. the cor	Link While ntent.	Additi the la	on procedu ayout is re-o	re text l rganize	ayouts ar d, no act	e ual
Consequences if not approved:	ж	NBAI Back previo	P would not ward compa ous version	benefit fro atibility: thi of NBAP.	om this is CR i	s layou s bacl	ut imp kwarc	provement. I compatible	e with re	espect to	the
Clauses affected:	ж	8.2.1	7, 8.3.1								
Other specs affected:	ж	X Ot Te O{	her core sp est specifica &M Specific	ecification tions ations	S	ж <u>2</u> С	5.423 R 396	CR 346 R9 5 R4	9 and 0	CR 347 R	4, 25.433
Other comments:	Ħ	This introc	CR was agr duced that v	eed in prin	nciple ere bei	at RA fore. T	N3 #2 This m	20, however histake is no	a sente w remo	ence was oved.	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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.
- 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 <u>ftp://www.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.

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

8.2.17 Radio Link Setup

8.2.17.1 General

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

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

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

8.2.17.2 Successful Operation



Figure 24: Radio Link Setup procedure: Successful Operation

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

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

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

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

Transport Channels Handling:

DCH(s):

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

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

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

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

4

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

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

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

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

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

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

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

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

DSCH(s):

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

[FDD – If the RADIO LINK SETUP REQUEST message includes the *TFC12 Bearer Information* IE then the Node B shall support the establishment of a transport bearer on which the DSCH TFCI Signaling control frames shall be received. The Node B shall manage the time of arrival of these frames according to the values of ToAWS and ToAWE specified in the IE's. The *Binding ID* IE and *Transport Layer Address* IE for the new bearer to be set up for this purpose shall be returned in the RADIO LINK SETUP RESPONSE message.]

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

[TDD – USCH(s)]:

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

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

Physical Channels Handling:

[FDD - Compressed Mode]:

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

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

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence* Information IE and the Active Pattern Sequence Information IE, the Node B shall immediately activate the indicated Transmission Gap Pattern Sequences. For each sequence the *TGCFN* refers to the latest passed <u>CFN with that value.]</u>

[FDD - DL Code Information]:

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

General:

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

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

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

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

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

Radio Link Handling:

[FDD - Transmit Diversity]:

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

DL Power Control:

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

<u>[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 on the Uu is</u>

achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3), but shall always be kept within the maximum and minimum limit specified in the RL SETUP REQUEST message.]

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

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

General:

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

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

[FDD - Radio Link Set Handling]:

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

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

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

[FDD –The UL out-of-sync algorithm defined in [10] shall, for each of the established RL Set(s), use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

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

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

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

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

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 FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

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

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

[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 on the Uu is achieved for the RLS or a DL POWER CONTROL REQUEST message is received. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) with DPC MODE=0 and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.].

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

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

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

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

[FDD If the *TFCI Signalling Mode* IE within the RADIO LINK SETUP message indicates that there shall be a hard split on the TFCI and the *TFCI2 Bearer Information* IE is included in the message then the Node B shall transmit the

TFCI2 field with zero power until Synchronization is achieved on the TFCI2 transport bearer and the first valid DSCH TFCI Signalling control frame is received on this bearer (see ref.[24]).]

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

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

[FDD If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the Node B shall immediately activate the indicated Transmission Gap Pattern Sequences. For each sequence the *TGCFN* refers to the latest passed CFN with that value.]

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

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

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

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

Response Message:

If the RLs are successfully establish<u>edment</u>, the Node B shall start reception on the new RL(s) and respond with a RADIO LINK SETUP RESPONSE message.

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

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

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

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

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

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

[FDD – When *Diversity Mode* IE is "*STTD*", "*Closedloop mode1*", or "*Closedloop mode2*", the DRNC shall activate/deactivate the Transmit Diversity to each Radio Link in accordance with *Transmit Diversity Indication* IE][FDD – Irrespective of SSDT activation, the Node B shall include in the RADIO LINK SETUP RESPONSE message an indication concerning the capability to support SSDT on this RL. Only if the RADIO LINK SETUP

REQUEST message requested SSDT activation and the RADIO LINK SETUP RESPONSE message indicates that the SSDT capability is supported for this RL, SSDT is activated in the Node B.]

[FDD The UL out of sync algorithm defined in [10] shall for each of the established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

8.3.1 Radio Link Addition

8.3.1.1 General

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

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

8.3.1.2 Successful Operation



Figure: 28 Radio Link Addition procedure, Successful Operation

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

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

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

Physical Channels Handling:

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

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

[FDD - Compressed Mode]:

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

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

[FDD - DL Code Information]:

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

[TDD - CCTrCH Handling]:

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

11

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

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

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

Radio Link Handling:

Diversity Combination Control:

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

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

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

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

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

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

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

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

[FDD - Transmit Diversity]:

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

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

DL Power Control:

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

12

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

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

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

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

General:

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

[FDD - Radio Link Set Handling]:

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

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

[FDD – After addition of the new RL(s), the UL out-of-sync algorithm defined in [10] shall for each of the previously existing and newly established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

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

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

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

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

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

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

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

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

Response message:

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

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

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

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

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

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

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

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

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

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

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

[FDD—After addition of the new RL(s), the UL out of sync algorithm defined in [10] shall for each of the previously existing and newly established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

3GPP TSG-RAN3 Meeting #21 Busan, South Korea, 21st – 25th May, 2001

R3-011369

CHANGE REQUEST									CR-Form-v3	
¥	25	. <mark>433</mark>	CR <mark>396</mark>		ж re	-	ж	Current vers	sion: 4.0.0	ж
For <u>HELP</u> on t	using	this for	m, see botto	om of this	page	or loo	k at th	e pop-up tex	t over the X syr	nbols.
Proposed change	affec	ts: ¥	(U)SIM	ME/	UE	Ra	adio A	ccess Networ	k 🗙 Core Ne	etwork
Title: #	B Mo	dificati	on of Radio	Link Setu	p and	Radio	o Link	Addition proc	edure text	
Source: #	R-N	VG3								
Work item code: ₩	S							Date: #	May 2001	
Category: #	B A							Release: #	REL-4	
	Use Deta be fo	one of a F (ess A (con B (Add C (Fur D (Edi iled exp ound in t	the following of ential correcti responds to a dition of featur nctional modifica torial modifica blanations of t 3GPP TR 21.	categories: ion) correction re), iication of fe ation) the above o 900.	<i>in an e</i> eature) categoi	earlier ies ca	<i>releas</i> In	Use <u>one</u> of 2 e) R96 R97 R98 R99 REL-4 REL-5	the following rele (GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5)	eases:
Reason for chang	e: #	As an Radio impro As th modi	n outcome o o Link Setup oved by usin he modification fication appl	f the RNS and Rad og subhea on was ag lied for the	SAP re io Link dings. greed f e sake	view Add It was or R9 of co	during ition p s agre 99, NB onsiste	RAN3 #18, i rocedure text ed that this a AP 4.0.0 nee ncy.	t was agreed th needs to have oplies to 25.433 ds to have the s	at the its layout as well. same
Summary of chan	ge:	The modi corre	Radio Link S fied by using ections are a	Setup and g subhead pplied to t	Radic lings. the co	Link While ntent.	Additi the la	on procedure ayout is re-org	text layouts are ganized, no actu	e Ial
Consequences if not approved:	ж	NBA misa Back previ	P 4.0.0 wou ligned w.r.t. ward compa ous version	ld not ben to NBAP atibility: thi of NBAP.	efit fro 3.5.0 a is CR i	m thi and fo s bac	s layo bllowin kwarc	ut improveme g R99 versio I compatible v	ent and would b ns of the specifi with respect to t	e cation. he
Clauses affected:	ж	8.2.1	7, 8.3.1							
Other specs affected:	ж	X Ot	ther core specification	ecification tions	S	ж 2 С	25.423 CR 398	CR 346 R99 5 R99	and CR 347 R4	4, 25.433
Other comments:	ж	This howe now	M Specification wodification ever a sente removed.	ations was agre nce was in	ed in ntrodu	princi ced tl	ple at hat wa	RAN3 #20 fo	r TS 25.433 V3 efore. This mist	.5.0, ake is

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> For the latest version, look for the directory name with the latest date e.g. 2000-09 contains the specifications resulting from the September 2000 TSG meetings.
- 3) With "track changes" disabled, paste the entire CR form (use CTRL-A to select it) into the specification just in front of the clause containing the first piece of changed text. Delete those parts of the specification which are not relevant to the change request.

8.2.17 Radio Link Setup

8.2.17.1 General

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

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

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

8.2.17.2 Successful Operation



Figure 24: Radio Link Setup procedure, Successful Operation

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

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

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

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

Transport Channels Handling:

DCH(s):

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

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

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

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

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

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

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

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

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

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

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

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

DSCH(s):

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

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

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

[TDD – USCH(s)]:

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

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

Physical Channels Handling:

[FDD – Compressed Mode]:

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

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

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence* Information IE and the Active Pattern Sequence Information IE, the Node B shall immediately activate the indicated Transmission Gap Pattern Sequences. For each sequence the *TGCFN* refers to the latest passed <u>CFN with that value.]</u>

[FDD – DL Code Information]:

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

General:

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

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

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

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

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

Radio Link Handling:

[FDD – Transmit Diversity]:

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

DL Power Control:

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

[FDD - If the *DPC Mode* IE is present in the RADIO LINK SETUP REQUEST message, the Node B shall apply the DPC mode indicated in the message, and be prepared that the DPC mode may be changed during

the life time of the RL. If the *DPC Mode* IE is not present in the RADIO LINK SETUP REQUEST message, DPC mode 0 shall be applied (see ref. [10]).]]

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

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

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

General:

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

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

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

[FDD – Radio Link Set Handling]:

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

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

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

[FDD – The UL out-of-sync algorithm defined in [10] shall for each of the established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set]

Response Message:

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

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

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

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

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 FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

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

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

[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 on the Uu is achieved for the RLS or a DL POWER CONTROL REQUEST message is received. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.].

[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 on the Uu is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3), but shall always be kept within the maximum and minimum limit specified in the RL SETUP REQUEST message.]

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

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

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

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

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

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

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

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

[FDD If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the Node B shall immediately activate the indicated Transmission Gap Pattern Sequences. For each sequence the *TGCFN* refers to the latest passed CFN with that value.]

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

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

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

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

If the RLs are successfully establish<u>edment</u>, the Node B shall start reception on the new RL(s) and respond with a RADIO LINK SETUP RESPONSE message.

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

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

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

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

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

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

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

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

[FDD—The UL out of sync algorithm defined in [10] shall for each of the established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set]

8.3.1 Radio Link Addition

8.3.1.1 General

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

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

8.3.1.2 Successful Operation



Figure: 28 Radio Link Addition procedure, Successful Operation

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

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

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

Physical Channels Handling:

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

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

[FDD – Compressed Mode]:

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

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

[FDD – DL Code Information]:

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

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

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

Radio Link Handling:

Diversity Combination Control:

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

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

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

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

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

[FDD – Transmit Diversity]:

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

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

DL Power Control:

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

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

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

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

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

General:

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

[FDD – Radio Link Set Handling]:

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

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

[FDD – After addition of the new RL(s), the UL out-of-sync algorithm defined in [10] shall for each of the previously existing and newly established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

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

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

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

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

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

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

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

Release 4

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

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

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

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

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

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

Response Message:

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

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

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

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

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

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

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

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

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

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

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

[FDD—After addition of the new RL(s), the UL out of sync algorithm defined in [10] shall for each of the previously existing and newly established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

CHANGE REQUEST					
æ	25.433 CR 397 * rev - * Current version: 3.5.0 *				
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the <i>x</i> symbols.					
Proposed change affects: # (U)SIM ME/UE Radio Access Network X Core Network					
Title: ೫	Clarification of Sentence on Procedure Parallelism for RL Failure and RL Restoration				
Source: ೫	R-WG3				
Work item code: %	TEI Date: # May, 2001				
Category: ж	F Release: # R99				
Reason for change	Jse one of the following categories: Use one of the following releases: F (essential correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) 896 (Release 1996) B (Addition of feature), R97 (Release 1997) C (Functional modification of feature) R98 (Release 1998) D (Editorial modification) R99 (Release 1999) Detailed explanations of the above categories can REL-4 (Release 4) De found in 3GPP TR 21.900. REL-5 (Release 5) ** In the current NBAP specification the sentence specifying that no restrictions apply to procedure parallelism are missing for the RI Failure and RI Restoration				
	procedures. This makes RNSAP and NBAP un-aligned. Changes compared to the agreed CR at RAN3 #20: - The "at any time" is added according to the comment received at the meeting.				
Summary of chang	: # This CR corrects the above-described error.				
Consequences if not approved:	If this CR is not approved the above described error will remain in the specification.				
	Backward compatibility: This CR is backward compatible with the previous version of NBAP.				
Clauses affected:	# 8.3.12.1 and 8.3.13.1				
Other specs affected:	X Other core specifications X 25.433 CR398 Rel-4 Test specifications 0&M Specifications				

How to create CRs using this form:

ж

Other comments:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.

8.3.12.1 General

This procedure is used by Node B to indicate a failure in one or more Radio Links [FDD - or Radio Link Sets][TDD or CCTrCHs within a Radio Link].

3

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

8.3.13.1 General

This procedure is used by the Node B to notify the achievement and re-achievement of uplink synchronisation of one or more [FDD - Radio Link Sets][TDD – Radio Links or CCTrCHs within a Radio Link] on the Uu.

4

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

CHANGE REQUEST					
æ	25.433 CR 398 # rev - # Current version: 4.0.0 #				
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: भ	Clarification of Sentence on Procedure Parallelism for RL Failure and RL Restoration				
Source: ೫	R-WG3				
Work item code: अ	TEI Date: # May, 2001				
Category: ж	A Release: # Rel-4				
Use one of the following categories: Use one of the following releases: F (essential correction) 2 A (corresponds to a correction in an earlier release) R96 (Release 1996) B (Addition of feature), R97 (Release 1997) C (Functional modification of feature) R98 (Release 1998) D (Editorial modification) R99 (Release 1999) Detailed explanations of the above categories can be found in 3GPP TR 21.900. REL-4 (Release 4) Reason for change: In the current NBAP specification the sentence specifying that no restrictions apply to procedure parallelism are missing for the RL Failure and RL Restoration procedures. This makes RNSAP and NBAP un-aligned. Changes compared to the agreed CR at RAN3 #20:					
	- The "at any time" is added according to the comment received at the meeting.				
Summary of chang	re: 郑 This CR corrects the above-described error.				
Consequences if not approved:	If this CR is not approved the above described error will remain in the specification.				
	Backward compatibility: This CR is backward compatible with the previous version of NBAP.				
Clauses affected:	策 8.3.12.1 and 8.3.13.1				
Other specs affected:	# X Other core specifications # 25.433 CR397 R99 Test specifications 0&M Specifications				

How to create CRs using this form:

ж

Other comments:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.

8.3.12.1 General

This procedure is used by Node B to indicate a failure in one or more Radio Links [FDD - or Radio Link Sets][TDD or CCTrCHs within a Radio Link].

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

8.3.13.1 General

This procedure is used by the Node B to notify the achievement and re-achievement of uplink synchronisation of one or more [FDD - Radio Link Sets][TDD – Radio Links or CCTrCHs within a Radio Link] on the Uu.

4

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

3GPP TSG-RAN WG3 Meeting #21 Busan, Korea, May 21st – 25th, 2001

CR-Form-v3 **CHANGE REQUEST** ж 25.433 CR 399 ₩ rev ж Current version: ж 3.5.0 For **HELP** on using this form, see bottom of this page or look at the pop-up text over the **#** symbols. (U)SIM ME/UE Radio Access Network X Core Network Proposed change affects: # Title: **#** Measurement reporting clarification Source: 第 R-WG3 Work item code: # TEI Date: # May 2001 Category: ж F Release: # R99 Use one of the following categories: Use one of the following releases: F (essential correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (Addition of feature), R97 (Release 1997) **C** (Functional modification of feature) R98 (Release 1998) D (Editorial modification) (Release 1999) R99 Detailed explanations of the above categories can REL-4 (Release 4) be found in 3GPP TR 21.900. REL-5 (Release 5) Reason for change: # The triggering of the measurement reporting is described in the procedure text of measurement initiation procedure. To further clarify the reporting triggering of the different measurement events this CR proposes to include additional pictures where f.ex. repeated events are shown. Summary of change: # A new annex has been added to further clarify the measurement reporting triggering. Updates according to the comments of RAN3 #20: The Report A and Report B and periodic reports have been indicated in the Event E and Event F reporting figures. R1: For events E and F, 'conditions are met' was replaced by 'conditions have been met' and quotation marks were added. R2: a clarification was added in the procedure text regarding the reporting for events C and D. # The current description may cause misinterpretations and problems in multivendor Consequences if not approved: networks. This change is backward compatible. Clauses affected: # 8.2.8.2, 8.3.8.2, Annex B **X** Other core specifications # CR350 (25.423) R99 Other specs CR351 (25.423) Rel4

CR400 (25.433) Rel4

affected:	Test specifications O&M Specifications	
Other comments:	ж	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.

8.2.8 Common Measurement Initiation

8.2.8.1 General

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

8.2.8.2 Successful Operation



Figure 11: Common Measurement Initiation procedure, Successful Operation

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Node B control port.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

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

[FDD - If the Spreading Factor Information is provided in the *Common Measurement Object Type* IE, measurement request shall apply to the PCPCHs whose minimum allowed spreading factor (Min UL Channelisation Code Length) is equal to the value of Spreading Factor Information.

If the *SFN Reporting Indicator* IE is set to "FN Reporting Required", the *SFN* IE shall be included in the measurement report or in the measurement response, the latter only in the case the *Report Characteristics* IE is set to 'On-Demand'. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *SFN* IE is provided, it indicates the frame for which the first measurement shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

Report characteristics

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

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

If the *Report Characteristics* IE is set to 'Periodic', the Node B shall periodically initiate a Measurement Reporting procedure for this measurement, with the requested report frequency.

If the *Report Characteristics* IE is set to 'Event A', the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event B', the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

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

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

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

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

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

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Common Measurement Reporting procedure immediately, and then continue with the measurements as specified in the COMMON MEASUREMENT INITIATION REQUEST message.

8.3.8 Dedicated Measurement Initiation

8.3.8.1 General

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

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

8.3.8.2 Successful Operation



Figure 38: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the communication control port assigned to the Node B communication context.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the request. Unless specified below the meaning of the parameters are given in other specifications.

If the *Node B Communication Context ID* IE equals the reserved value 'All NBCC', this measurement request shall apply for all current and future Node B Communication Contexts controlled via the Communication Control Port on which the DEDICATED MEASUREMENT INITIATION REQUEST message was received. Otherwise, this measurement request shall apply for the requested Node B Communication Context ID only.

If the *Node B Communication Context ID* IE equals the reserved value 'All NBCC', the measurement request shall be treated as a single measurement, despite applying to multiple contexts. This means that it may only be terminated or failed on 'All NBCC'.

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

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

If the *Dedicated Measurement Object Type* IE is set to "ALL RL", measurement results shall be reported for all current and future Radio Links within the Node B Communication Context.

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

[TDD – If DPCH ID is provided within the RL Information the measurement request shall apply for the requested physical channel individually.]

If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the measurement report or in the measurement response, the latter only in the case the *Report Characteristics* IE is set to 'On-Demand'. The reported CFN shall be the CFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *CFN* IE is provided, it indicates the frame for which the first measurement shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

Report characteristics

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

If the *Report Characteristics* IE is set to 'On-Demand', the Node B shall return the result of the measurement immediately.

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

If the *Report Characteristics* IE is set to 'Event A', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event B', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

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

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

If the *Report Characteristics* IE is set to 'Event E', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If 'Measurement Threshold 2' is not present, the Node B shall use 'Measurement Threshold 2' is provided, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

If the *Report Characteristics* IE is set to 'Event F', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If 'Measurement Threshold 2' is not present, the Node B shall use 'Measurement Threshold 2' is provided, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

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

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

<u>Annex B (informative):</u> Measurement reporting

When the *Report Characteristics* IE is set to 'Event A' (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.



When the *Report Characteristics* IE is set to 'Event B' (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the

hysteresis time.







When the *Report Characteristics* IE is set to 'Event F' (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (T1 in figure B.6). If *Report Periodicity* IE is provided Node B shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the 'Measurement Threshold 1' and is terminated by the Report B.

<u>When the Report A conditions have been met</u> and the measured entity rises above the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (T1) Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.



3GPP TSG-RAN WG3 Meeting #21 Busan, Korea, May 21st – 25th, 2001

CR-Form-v3 **CHANGE REQUEST** ж CR 400 25.433 ₩ rev ж Current version: ж 4.0.0 For **HELP** on using this form, see bottom of this page or look at the pop-up text over the **#** symbols. (U)SIM ME/UE Radio Access Network X Core Network Proposed change affects: # Title: **#** Measurement reporting clarification Source: 第 R-WG3 Work item code: # TEI Date: # May 2001 Category: ж A Release: # REL-4 Use one of the following categories: Use one of the following releases: F (essential correction) 2 (GSM Phase 2) A (corresponds to a correction in an earlier release) R96 (Release 1996) B (Addition of feature), R97 (Release 1997) **C** (Functional modification of feature) R98 (Release 1998) D (Editorial modification) (Release 1999) R99 Detailed explanations of the above categories can REL-4 (Release 4) be found in 3GPP TR 21.900. REL-5 (Release 5) Reason for change: # The triggering of the measurement reporting is described in the procedure text of measurement initiation procedure. To further clarify the reporting triggering of the different measurement events this CR proposes to include additional pictures where f.ex. repeated events are shown. Summary of change: # A new annex has been added to further clarify the measurement reporting triggering. Updates according to the comments of RAN3 #20: The Report A and Report B and periodic reports have been indicated in the Event E and Event F reporting figures. R1: For events E and F, 'conditions are met' was replaced by 'conditions have been met' and quotation marks were added. R2: a clarification was added in the procedure text regarding the reporting for events C and D. # The current description may cause misinterpretations and problems in multivendor Consequences if not approved: networks. This change is backward compatible. Clauses affected: # 8.2.8.2, 8.3.8.2, Annex B **X** Other core specifications # CR350 (25.423) R99 Other specs CR351 (25.423) Rel4 CR399 (25.433) R99

affected:	Test specifications O&M Specifications	
Other comments:	ж	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.

8.2.8 Common Measurement Initiation

8.2.8.1 General

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

8.2.8.2 Successful Operation



Figure 11: Common Measurement Initiation procedure, Successful Operation

The procedure is initiated with a COMMON MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the Node B control port.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the request. Unless specified below, the meaning of the parameters are given in other specifications.

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

[FDD - If the Spreading Factor Information is provided in the *Common Measurement Object Type* IE, measurement request shall apply to the PCPCHs whose minimum allowed spreading factor (Min UL Channelisation Code Length) is equal to the value of Spreading Factor Information.

If the *Common Measurement Type* IE is not set to 'SFN-SFN Observed Time Difference' and the *SFN Reporting Indicator* IE is set to "FN Reporting Required", the *SFN* IE shall be included in the measurement report or in the measurement response, the latter only in the case the *Report Characteristics* IE is set to 'On-Demand'. The reported SFN shall be the SFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25]. If the *Common Measurement Type* IE is set to 'SFN-SFN Observed Time Difference' and the *SFN Reporting Indicator* IE is ignored.

If the *SFN* IE is provided, it indicates the frame for which the first measurement shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

Common measurement type

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

Report characteristics

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

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

If the *Report Characteristics* IE is set to 'Periodic', the Node B shall periodically initiate a Measurement Reporting procedure for this measurement, with the requested report frequency. If the *Common Measurement Type* IE is set to 'SFN-SFN Observed Time Difference', all the available measurement results shall be reported in the *Successful Neighbouring cell SFN-SFN Observed Time Difference Measurement Information* IE in the *SFN-SFN Measurement Value Information* IE and the Node B shall indicate in the *Unsuccessful Neighbouring cell SFN-SFN Observed Time Difference Measurement Neighbouring cell SFN-SFN Observed Time Difference Measurement* no measurement result available in the Common Measurement Reporting procedure.

If the *Report Characteristics* IE is set to 'Event A', the Node B shall initiate the Common Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event B', the Node B shall initiate the Common Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

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

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

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

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

8.3.8 Dedicated Measurement Initiation

8.3.8.1 General

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

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

8.3.8.2 Successful Operation



Figure 38: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the communication control port assigned to the Node B communication context.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the request. Unless specified below the meaning of the parameters are given in other specifications.

If the *Node B Communication Context ID* IE equals the reserved value 'All NBCC', this measurement request shall apply for all current and future Node B Communication Contexts controlled via the Communication Control Port on which the DEDICATED MEASUREMENT INITIATION REQUEST message was received. Otherwise, this measurement request shall apply for the requested Node B Communication Context ID only.

If the *Node B Communication Context ID* IE equals the reserved value 'All NBCC', the measurement request shall be treated as a single measurement, despite applying to multiple contexts. This means that it may only be terminated or failed on 'All NBCC'.

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

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

If the *Dedicated Measurement Object Type* IE is set to "ALL RL", measurement results shall be reported for all current and future Radio Links within the Node B Communication Context.

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

[TDD – If DPCH ID is provided within the RL Information the measurement request shall apply for the requested physical channel individually.]

If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the measurement report or in the measurement response, the latter only in the case the *Report Characteristics* IE is set to 'On-Demand'. The reported CFN shall be the CFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *CFN* IE is provided, it indicates the frame for which the first measurement shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

Report characteristics

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

Release 4

6

If the *Report Characteristics* IE is set to 'On-Demand', the Node B shall return the result of the measurement immediately.

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

If the *Report Characteristics* IE is set to 'Event A', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event B', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

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

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

If the *Report Characteristics* IE is set to 'Event E', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (Report A). When the conditions for Report A are met and the *Report Periodicity* IE is provided the Node B shall also initiate the Dedicated Measurement Reporting procedure periodically. If the conditions for Report A have been met and the measured entity falls below the 'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time', the Node B shall initiate the Dedicated Measurement Reporting procedure (Report B) as well as terminating any corresponding periodic reporting. If 'Measurement Threshold 2' is not present, the Node B shall use 'Measurement Threshold 2' is provided, the Node B shall use the value zero as hysteresis times for both Report A and Report B.

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

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

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

<u>Annex B (informative):</u> Measurement reporting

When the *Report Characteristics* IE is set to 'Event A' (figure B.1), the Measurement Reporting procedure is initiated when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.



Figure B.1: Event A reporting with Hysteresis Time specified

When the *Report Characteristics* IE is set to 'Event B' (figure B.2), the Measurement Reporting procedure is initiated when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the value zero shall be used for the hysteresis time.







When the *Report Characteristics* IE is set to 'Event F' (figure B.6), the Measurement Reporting procedure (Report A) is initiated always when the measured entity falls below the 'Measurement Threshold 1' and stays there for the 'Measurement Hysteresis Time' (T1 in figure B.6). If *Report Periodicity* IE is provided Node B shall also initiate Measurement Reporting procedure periodically. The periodic reporting continues although the measured entity rises above the 'Measurement Threshold 1' and is terminated by the Report B.

<u>When the Report A conditions have been met</u> and the measured entity rises above the <u>'Measurement Threshold 2' and stays there for the 'Measurement Hysteresis Time' (T1)</u> Measurement Reporting procedure (Report B) is initiated and the periodic reporting is terminated.



CHANGE REQUEST				
ж	25.433 CR 401 * rev - *	Current version: 3.5.0 [#]		
For <u>HELP</u> on us	ing this form, see bottom of this page or look at	the pop-up text over the 策 symbols.		
Proposed change a	ffects: ¥ (U)SIM ME/UE Radio	Access Network X Core Network		
Title: ¥	Clarification of Handling of the CM Configuration	on Change CFN IE		
Source: ೫	R-WG3			
Work item code: ₩		Date: # May, 2001		
Category: ж	F	Release: # R99		
	Use <u>one</u> of the following categories: F (essential correction) A (corresponds to a correction in an earlier relead 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 <u>one</u> of the following releases: 2 (GSM Phase 2) ase) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)		
Reason for change:	* # In the current NBAP specification the hand	dling of the IEs TGCFN in RL Setup		
	and RL Addition effectively block manager period when compressed mode is being a sequences are restarted. This is due to the passed CFNs. Further more, this requirem signalling delay variation.	ment of the active set (RLs) during the ctivated, deactivated, or pattern e requirement on all the TGCFNs being pent effectively reduce the tolerance on		
Summary of change	 # This CR corrects the Compressed Mode C Configuration Change CFN IE shall be a p CFNs following within one CFN cycle of th the following messages: RADIO LINK SETUP REQUEST 	Control function such that the CM bassed CFN and the TGCFNs shall be be CM Configuration Change CFN IE in		
	 Changes since R3 #20: The semantics of the CM Configuration has been removed completely to avoid Configuration Change CFN IE may refiguration only, b) stopping old patterns and stopping old patterns at the "same" 	on Change CFN IE in chapter 9.2.2.A d confusion. This since the CM fer to the time for a) starting new only, or c) both starting new patterns e time".		
Consequences if not approved:	If this CR is not approved the above-descr specification.	ribed error will remain in the		
	Backward compatibility: This CR is backward compatible for all fun Mode Control Function (which is corrected Further more, no backward compatible sol have been identified.	actions of NBAP but the Compressed a) with the previous version of NBAP. Iution to the above-described error		

Clauses affected: # 8.2.17.2 and 9.2.2.A.

Other specs	Ħ	X Other core specifications	Ħ	TS 25.423 CR352 (Rel. '99) TS 25.423 CR353 (Rel. 4) TS 25.433 CR402 (Rel. 4)
affected:	-	Test specifications O&M Specifications		
Other comments:	ж	If CR395 is approved, the changed/new paragraphs in 8.2.17.2 shall be placed under the sub-beading Compressed Mode in accordance with CR395		

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.
8.2.17.2 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 establish 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 establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

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

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

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

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

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

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 FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

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

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

[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 on the Uu is achieved for the RLS or a DL POWER CONTROL REQUEST message is received. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) with DPC MODE=0 and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.].

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

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

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

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

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

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE, the Node B shall store the information about the Transmission Gap Pattern Sequences to be used in the Compressed Mode Configuration. This Compressed Mode Configuration shall be valid in the Node B until the next Compressed Mode Configuration is configured in the Node B or Node B Communication Context is deleted.] [FDD – If the *Downlink compressed mode method* IE in one or more Transmission Gap Pattern Sequence is set to 'SF/2' in the RADIO LINK SETUP REQUEST message, the Node B shall use or not the alternate scrambling code as indicated for each DL Channelisation Code in the *Transmission Gap Pattern Sequence Code Information* IE.]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6

[FDD – The UL out-of-sync algorithm defined in [10] shall for each of the established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

9.2.2.A Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [18].

7

IE/Group Name	Presence	Range	IE type and reference	Semantics description					
CM Configuration Change CFN	М		CFN 9.2.1.7	Defines when the old Active pattern sequences, if active, shall be terminated. From this moment on, the new sequences are activated at the given TGCFN.					
Transmission Gap Pattern Sequence Status		0 to <maxtgps></maxtgps>							
>TGPSI Identifier	M		Integer(1< MaxTGPS>)	If the group is not present, none of the pattern sequences are activated. References an already defined sequence.					
>TGPRC	М		Integer (063)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence. 0=Infinity					
>TGCFN	М		CFN 9.2.1.7	Connection Frame Number of the first frame of the first pattern within the Transmission Gap Pattern Sequence.					

Range bound	Explanation						
MaxTGPS	Maximum number of active pattern sequences. Value 6.						

CHANGE REQUEST											
ж	25.433 CR 402 * rev - *	Current version: 4.0.0 [#]									
For <u>HELP</u> on us	ing this form, see bottom of this page or look at the	e pop-up text over the ິສ symbols.									
Proposed change affects: # (U)SIM ME/UE Radio Access Network X Core Network											
Title: ೫	Clarification of Handling of the CM Configuration	Change CFN IE									
Source: ೫	R-WG3										
Work item code: ℜ		Date:									
Category: ೫	Α	Release: ೫ REL-4									
	 Use <u>one</u> of the following categories: <i>F</i> (essential correction) <i>A</i> (corresponds to a correction in an earlier release <i>B</i> (Addition of feature), <i>C</i> (Functional modification of feature) <i>D</i> (Editorial modification) Detailed explanations of the above categories can be found in 3GPP TR 21.900. 	Use <u>one</u> of the following releases: 2 (GSM Phase 2) 9) R96 (Release 1996) R97 (Release 1997) R98 (Release 1998) R99 (Release 1999) REL-4 (Release 4) REL-5 (Release 5)									
Reason for change:	* # In the current NBAP specification the handlin	ng of the IEs TGCFN in RL Setup									
	and RL Addition effectively block manageme period when compressed mode is being active sequences are restarted. This is due to the re passed CFNs. Further more, this requirement signalling delay variation.	nt of the active set (RLs) during the vated, deactivated, or pattern equirement on all the TGCFNs being at effectively reduce the tolerance on									
Summary of change	 # This CR corrects the Compressed Mode Cor Configuration Change CFN IE shall be a pas CFNs following within one CFN cycle of the o the following messages: RADIO LINK SETUP REQUEST 	ntrol function such that the CM sed CFN and the TGCFNs shall be CM Configuration Change CFN IE in									
	 Changes since R3 #20: The semantics of the CM Configuration of has been removed completely to avoid c Configuration Change CFN IE may refer patterns only, b) stopping old patterns or and stopping old patterns at the "same time" 	Change CFN IE in chapter 9.2.2.A confusion. This since the CM to the time for a) starting new hly, or c) both starting new patterns me".									
Consequences if not approved:	If this CR is not approved the above-describe specification.	ed error will remain in the									
	Backward compatibility: This CR is backward compatible for all functi Mode Control Function (which is corrected) w Further more, no backward compatible soluti have been identified.	ons of NBAP but the Compressed with the previous version of NBAP. ion to the above-described error									

Clauses affected: # 8.2.17.2 and 9.2.2.A.

Other specs	Ħ	X Other core specifications #	TS 25.423 CR352 (Rel. '99) TS 25.423 CR353 (Rel. 4) TS 25.433 CR401 (Rel. '99)								
affected:		Test specifications O&M Specifications									
Other comments:	ж	If CR396 is approved, the changed	/new paragraphs in 8,2,17,2 shall be placed								
		under the sub-heading Compressed Mode in accordance with CR396.									

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.

8.2.17.2 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 establish 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 establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

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

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

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

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

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

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 FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

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

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

[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 on the Uu is achieved for the RLS or a DL POWER CONTROL REQUEST message is received. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.].

[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 on the Uu is achieved for the RL. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3), but shall always be kept within the maximum and minimum limit specified in the RL SETUP REQUEST message.]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

[FDD – The UL out-of-sync algorithm defined in [10] shall for each of the established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

9.2.2.A Active Pattern Sequence Information

Defines the parameters for the compressed mode gap pattern sequence activation. For details see ref. [18].

IE/Group Name	Presence	Range	IE type and reference	Semantics description
CM Configuration Change CFN	М		CFN 9.2.1.7	Defines when the old Active pattern sequences, if active, shall be terminated. From this moment on, the new sequences are activated at the given TGCFN.
Transmission Gap Pattern Sequence Status		0 to <maxtgps></maxtgps>		
>TGPSI Identifier	M		Integer(1< MaxTGPS>)	If the group is not present, none of the pattern sequences are activated. References an already defined sequence.
>TGPRC	М		Integer (063)	The number of transmission gap patterns within the Transmission Gap Pattern Sequence. 0=Infinity
>TGCFN	М		CFN 9.2.1.7	Connection Frame Number of the first frame of the first pattern within the Transmission Gap Pattern Sequence.

Range bound	Explanation						
MaxTGPS	Maximum number of active pattern sequences. Value 6.						

															CR-Form-v3
CHANGE REQUEST															
¥	25	.433	CR	403		ж	rev	1	Ħ	Currer	nt vers	sion:	3.	5.0	ж
For HELP on using this form, see bottom of this page or look at the pop-up text over the \Re symbols.															
Proposed change affects: # (U)SIM ME/UE Radio Access Network X Core Network															
Title: ដ	Cla	rificati	on of D	<mark>L Powe</mark>	er Appl	icab	ility								
Source: ೫	R-V	VG3													
₩ork item code: ₩	TE									Da	ate: ೫	15	May	2001	
0	-														
Category: #	F									Relea	ise: #	R R S	9		
A (corresponds to a correction in an earlier release)R96(Release 1996)B (Addition of feature),R97(Release 1997)C (Functional modification of feature)R98(Release 1998)D (Editorial modification)R99(Release 1999)Detailed explanations of the above categories canREL-4(Release 4)be found in 3GPP TR 21.900.REL-5(Release 5)															
Reason for change	ə: ¥	Curro be a PDS	ently th oplied CH. Th	te speci to all ch his contr	ficatior annelis adicts	n tex satic the	t stat on coo inten	tes th des o tion a	at the of the and th	e initial RL. Th he IE de	, max iis incl efinitic	and i ludes ons in	min p both the	Dower DPC tabula	s shall H and ar format.
Summary of chang	уе: Ж	The the in code	specific nitial/m	cation te ax/min	ext in th power	he re app	eleva lies to	nt pro	bcedu h DF	ures is i PCH rat	modifi her th	ied to an ea	mak ach c	ke it cl hann	ear that elisation
		The	change	e is bac	kwards	cor	npati	ble w	vith th	ne inten	tion o	f the	previ	ious te	ext.
Consequences if not approved:	ж	This poss	<mark>contra</mark> ible.	diction	will rem	nain	, and	cons	isten	t powe	r man	agem	nent v	will no	ot be
Clauses affected:	ж	8.2.1	7.2, 8.	<mark>3.1.2, 8</mark>	.3.5.2										
Other specs affected:	ж	01 Te	ther co est spe &M Sp	re spec cificatio ecificati	ificatio ns ons	ns	ж	25	.433	CR404	lr1				

How to create CRs using this form:

ж

Other comments:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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 establish 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 establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

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

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

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

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

[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.

Release 99

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

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 FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

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

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

[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 codeDPCH of the RL until either UL synchronisation on the Uu is achieved for the RLS or a DL POWER CONTROL REQUEST message is received. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) with DPC MODE=0 and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.].

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

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

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

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

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

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

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

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the Node B shall immediately activate the indicated Transmission Gap Pattern Sequences. For each sequence the *TGCFN* refers to the latest passed CFN with that value.]

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

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

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

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

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

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

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

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

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

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

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

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

[FDD – Irrespective of SSDT activation, the Node B shall include in the RADIO LINK SETUP RESPONSE message an indication concerning the capability to support SSDT on this RL. Only if the RADIO LINK SETUP REQUEST

message requested SSDT activation and the RADIO LINK SETUP RESPONSE message indicates that the SSDT capability is supported for this RL, SSDT is activated in the Node B.]

[FDD – The UL out-of-sync algorithm defined in [10] shall for each of the established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

8.3.1 Radio Link Addition

8.3.1.1 General

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

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

8.3.1.2 Successful Operation



Figure: 28 Radio Link Addition procedure, Successful Operation

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

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

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

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

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

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

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

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

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

[TDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL <u>Channelisation CodeDPCH</u> and on each Time Slot of the RL when starting transmission until the UL synchronisation on the Uu is achieved for the RL. If no *Initial DL Transmission power* IE is included, the Node B shall use any transmission power level currently used on already

existing RL's for this UE. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

9

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

[FDD – After addition of the new RL(s), the UL out-of-sync algorithm defined in [10] shall for each of the previously existing and newly established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

8.3.5 Unsynchronised Radio Link Reconfiguration

8.3.5.1 General

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

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

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

8.3.5.2 Successful Operation



Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation

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

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

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

DCH Modification:

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

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

- If the *DCHs to Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Downlink of this DCH in the new configuration.]
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Addition:

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

- If a *DCHs to Add* IE includes multiple *DCH Specific Info* IEs for a DCH to be added, the Node B shall treat the DCHs in the *DCHs to Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- [FDD For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Node B shall use the Transport channel BER from that DCHas the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If the QE-Selector is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]
- For a set of co-ordinated DCHs, the Node B shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" as the QE in the UL data frames [16]. [FDD If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If all DCHs have *QE-Selector* IE set to "non-selected" the Physical channel BER shall be used for the QE [16].]
- The Node B should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new configuration has been activated.
- The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the downlink of this DCH in the new configuration.]
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Deletion:

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

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

[FDD - Physical Channel Modification:]

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

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

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

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

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

[TDD – UL/DL CCTrCH Modification]

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

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

[TDD – UL/DL CCTrCH Deletion]

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

RL Information:

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

- If the *RL Information* IE includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a higher power on any Downlink Channelisation Code DPCH 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 CodeDPCH of the Radio Link once the new configuration is being used.
- [FDD If the *RL Information* IE contains the *DL Code Information* IE 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 Codes, the Node B shall apply the alternate scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]

General

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

13

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 Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

In case of a 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.

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

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

															CR-Form-v3
CHANGE REQUEST															
¥	25	.433	CR	<mark>404</mark>		ж	rev	1	ж	Curre	nt vers	sion:	4.(0.0	ж
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: ೫	Cla	rificatio	on of D	L Powe	<mark>r Appli</mark>	cabi	lity								
Source: ೫	R-V	VG3													
Work item code: %	TE									Di	ate: ೫	15	May	2001	
Category: #	Δ									Relea	se [,] #	Re	el-4		
F (essential correction)2(GSM Phase 2)A (corresponds to a correction in an earlier release)R96(Release 1996)B (Addition of feature),R97(Release 1997)C (Functional modification of feature)R98(Release 1998)D (Editorial modification)R99(Release 1999)Detailed explanations of the above categories canREL-4(Release 4)be found in 3GPP TR 21.900.REL-5(Release 5)															
Reason for change Summary of chang	э: Ж ge:Ж	Curre be ap PDS The s the in code	ently th oplied t CH. Th specific nitial/m	e specifico all cha is contr cation te ax/min p	fication annelis adicts f ext in th power a	tex atio the i ne re appl	t stat n coo intent elevar lies to	es th des o tion a nt pro	at the f the and th ocedu	e initial RL. Th ne IE de ures is CH rat	, max his incl efinitic modifi her th	and r ludes ons in ied to an ea	min p both the t mak	owers DPC tabula e it cle hanne	s shall H and Ir format. ear that elisation
		The	change	e is back	wards	con	npatil	ole w	ith th	e inten	tion o	f the	previ	ous te	ext.
Consequences if not approved:	ж	This poss	contra ible.	diction v	vill rem	ain,	and	cons	isten	t powe	r man	agem	nent v	will no	t be
Clauses affected:	ж	8.2.1	7.2, 8.	3 <mark>.1.2, 8</mark> .	.3.5.2										
Other specs affected:	ж	01 Te	ther co est spe &M Sp	re speci cificatio	ficatior ns ons	าร	ж	25	.423	CR403	Br1				

How to create CRs using this form:

ж

Other comments:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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 establish 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 establish one radio link including one or more transport channels. The transport channels can be a mix of DCHs, DSCHs, and USCHs, including also combinations where one or more transport channel types are not present.]

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

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

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

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

[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.

Release 4

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

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 FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the configuration.

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

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

[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 codeDPCH of the RL until either UL synchronisation on the Uu is achieved for the RLS or a DL POWER CONTROL REQUEST message is received. No inner loop power control or balancing shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[10], subclause 5.2.1.2) and the power control procedure (see subclause 8.3.7), but shall always be kept within the maximum and minimum limit specified in the RADIO LINK SETUP REQUEST message.].

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

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

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

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

3GPP

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

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

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

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

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

[FDD – If the RADIO LINK SETUP REQUEST message includes the *Transmission Gap Pattern Sequence Information* IE and the *Active Pattern Sequence Information* IE, the Node B shall immediately activate the indicated Transmission Gap Pattern Sequences. For each sequence the *TGCFN* refers to the latest passed CFN with that value.]

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

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

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

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

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

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

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

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

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

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

Release 4

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

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

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

[FDD – The UL out-of-sync algorithm defined in [10] shall for each of the established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set].

8.3.1 Radio Link Addition

8.3.1.1 General

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

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

8.3.1.2 Successful Operation



Figure: 28 Radio Link Addition procedure, Successful Operation

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

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

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

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

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

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

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

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

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

[TDD – If the RADIO LINK ADDITION REQUEST message includes the *Initial DL Transmission Power* IE, the Node B shall apply the given power to the transmission on each DL <u>Channelisation Code and on each Time SlotDPCH</u> of

7

the RL when starting transmission until the UL synchronisation on the Uu is achieved for the RL. If no *Initial DL Transmission power* IE is included, the Node B shall use any transmission power level currently used on already existing RL's for this UE. No inner loop power control shall be performed during this period. The DL power shall then vary according to the inner loop power control (see ref.[22], subclause 4.2.3.3).]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

After sending of the RADIO LINK ADDITION RESPONSE message the Node B shall continuously attempt to obtain UL synchronisation on the Uu and start reception on the new RL. [FDD – The Node B shall start transmission on the

new RL after synchronisation is achieved in the DL user plane as specified in [16].] [TDD – The Node B shall start transmission on the new RL immediately as specified in [16].]

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

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

[FDD – After addition of the new RL(s), the UL out-of-sync algorithm defined in [10] shall for each of the previously existing and newly established RL Set(s) use the maximum value of the parameters N_OUTSYNC_IND and T_RLFAILURE, and the minimum value of the parameters N_INSYNC_IND, that are configured in the cells supporting the radio links of the RL Set.]

8.3.5 Unsynchronised Radio Link Reconfiguration

8.3.5.1 General

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

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

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

8.3.5.2 Successful Operation



Figure 34: Unsynchronised Radio Link Reconfiguration Procedure, Successful Operation

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

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

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

DCH Modification:

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

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

- If the *DCHs to Modify* IE includes the *ToAWE* IE for a DCH or a set of co-ordinated DCHs, the Node B shall apply the new ToAWE in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Downlink of this DCH in the new configuration.]
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Addition:

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

- If a *DCHs to Add* IE includes multiple *DCH Specific Info* IEs for a DCH to be added, the Node B shall treat the DCHs in the *DCHs to Add* IE as a set of co-ordinated DCHs. The Node B shall include these DCHs in the new configuration only if it can include all of them in the new configuration.
- [FDD For DCHs which do not belong to a set of co-ordinated DCHs with the *QE-Selector* IE set to "selected", the Node B shall use the Transport channel BER from that DCHas the base for the QE in the UL data frames. If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If the QE-Selector is set to "non-selected", the Physical channel BER shall be used for the QE in the UL data frames, ref. [16].]
- For a set of co-ordinated DCHs, the Node B shall use the Transport channel BER from the DCH with the *QE-Selector* IE set to "selected" as the QE in the UL data frames [16]. [FDD If no Transport channel BER is available for the selected DCH, the Physical channel BER shall be used for the QE [16]. If all DCHs have *QE-Selector* IE set to "non-selected" the Physical channel BER shall be used for the QE [16].]
- The Node B should store the *Frame Handling Priority* IE received for a DCH to be added in the new configuration. The received Frame Handling Priority should be used when prioritising between different frames in the downlink on the radio interface in congestion situations within the Node B once the new configuration has been activated.
- The Node B shall use the included *UL FP Mode* IE for a DCH or a set of co-ordinated DCHs to be added as the new FP Mode in the Uplink of the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWS* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window Start Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- The Node B shall use the included *ToAWE* IE for a DCH or a set of co-ordinated DCHs to be added as the new Time of Arrival Window End Point in the user plane for the DCH or the set of co-ordinated DCHs in the new configuration.
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the DL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the downlink of this DCH in the new configuration.]
- [TDD If the RADIO LINK RECONFIGURATION REQUEST message includes the *CCTrCH ID* IE for the UL of a DCH to be modified, the Node B shall apply the new CCTrCH ID in the Uplink of this DCH in the new configuration.]

DCH Deletion:

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

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

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

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

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

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

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

[TDD – UL/DL CCTrCH Modification]

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

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

[TDD – UL/DL CCTrCH Deletion]

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

RL Information:

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

- If the *RL Information* IE includes the *Maximum DL Power* IE, the Node B shall apply this value to the new configuration and never transmit with a higher power on any Downlink Channelisation CodeDPCH 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 CodeDPCH of the Radio Link once the new configuration is being used.
- [FDD If the *RL Information* IE contains the *DL Code Information* IE 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 Codes, the Node B shall apply the alternate scrambling code as indicated whenever the downlink compressed mode method SF/2 is active in the new configuration.]

General

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

13

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 Channel being added, or any Transport Channel being modified for which a new transport bearer was requested with the *Transport Bearer Request Indicator* IE.

In case of a 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.

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

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

3GPP TSG-RAN WG3 Meeting #21 Busan, Korea, May 21th – 25th, 2001

CHANGE REQUEST										CR-Form-v3
ж Н	25.4	433	CR	405	ж rev	-	ж (Current vers	ion: 3.	5.0 [#]
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the $#$ symbols.										
Proposed cl	Proposed change affects: # (U)SIM ME/UE Radio Access Network X Core Network									
Title:	ж	Ambiguit	<mark>y in mean</mark>	ing of DL p	ower IE					
Source:	ж	R-WG3								
Work item c	ode: #	TEI						<i>Date:</i>	May 200	01
Category:	ж	F						Release: ೫	R99	
		F (ess A (cou B (Ad C (Fu D (Ed Detailed ex be found in	sential corresponds a dition of fe- nctional mod itorial mod planations 3GPP TR	ng categorie ection) to a correctio ature), odification of ification) of the above 21.900.	s. on in an e f feature) e categori	arlier re	elease)	050 <u>0110</u> 2 R96 R97 R98 R99 REL-4 REL-5	(GSM Pha (Release (Release (Release (Release (Release (Release	ig releases. se 2) 1996) 1997) 1998) 1999) 4) 5)
Reason for	change:	: ೫ Give the I	n certain DL power	questions a	asked on dered un	the Racilear.	AN3 e	exploder, the	current d	escription of
Summary of	f change	e: ೫ A cla	arification	is added in	<mark>i line wit</mark> h	the cu	urrent	WG1 under	standing.	
Consequence	ces if	쁆 The	CR is bad	ckward con	npatible v	vith the	e inter	nded behavio	our of the	specification.
not approve	d:	Unc	larity in th	e specifica	tion can	ead to	multi	-vendor inter	roperabilit	y problems.
Clauses affe	ected:	¥ 9.2.′	1.21							
Other specs affected:	3	ж <mark>Х</mark> О Т О	ther core est specif &M Speci	specificatic ications ifications	ons S	€ Re	I 4 CF	R: 25.433 CR	406	
Other comm	nents:	¥								

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.

9.2.1.21 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 <u>transmitted DPDCH</u> symbols].

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

3GPP TSG-RAN WG3 Meeting #21 Busan, Korea, May 21th – 25th, 2001

CHANGE REQUEST										
#	25.433	CR	406 ^ж	rev	- *	Current vers	^{ion:} 4.0.0 [#]			
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:	¥ An	<mark>nbiguity in mea</mark>	ning of DL powe	er IE						
Source:	<mark>೫ R-</mark> \	WG3								
Work item c	ode: ೫ TE	I				Date: ೫	May 2001			
Category:	ж <mark>А</mark>					Release: ೫	Rel-4			
	Deta be fo	<i>F</i> (essential col <i>A</i> (corresponds <i>B</i> (Addition of f <i>C</i> (Functional m <i>D</i> (Editorial mon build explanation bund in 3GPP TF	rrection) to a correction in eature), nodification of fea dification) s of the above ca R 21.900.	n an earli hture) tegories	er releaso can	e) R96 R97 R98 R99 REL-4 REL-5	(GSM Phase 2) (Release 1996) (Release 1997) (Release 1998) (Release 1999) (Release 4) (Release 5)	».		
Reason for	change: Ж	Given certain the DL powe	r questions ask r IE is consider	<mark>ed on th</mark> ed uncle	e RAN3 ar.	exploder, the	current description	of		
Summary of	f change: ೫	A clarification	<mark>n is added in lin</mark>	<mark>e with th</mark>	e currer	nt WG1 under	standing.			
Consequent not approve	cesif	The CR is ba Unclarity in t	ackward compa	tible with can lea	n the inte	ended behavi	our of the specificat roperability problem	tion. ns.		
0100000000		0.0.1.01								
Clauses affe	ectea: #	9.2.1.21								
Other specs affected:	; ¥	X Other core Test spec O&M Spe	e specifications ifications cifications	æ	R99 CF	R: 25.433 CR4	405			
Other comm	nents: ೫									

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.

9.2.1.21 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 <u>transmitted</u> DPDCH symbols].

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

3GPP TSG-RAN3 Meeting #21 Busan, South Korea, 21st –25th May, 2001

R3-011402

		·v3
*	25.433 CR 407 * rev - * Current version: 3.5.0 *	
For <u>HELP</u> on u	sing this form, see bottom of this page or look at the pop-up text over the \Re symbols.	
Proposed change a	affects: # (U)SIM ME/UE Radio Access Network X Core Network	
Title: ೫	Clarification between ddMode and ALLNBCC measurements	
Source: अ	R-WG3	
Work item code: %	Date:	
Category: ж	F Release: # R99	
	Use one of the following categories:Use one of the following releases:F (essential correction)2(GSM Phase 2)A (corresponds to a correction in an earlier release)R96(Release 1996)B (Addition of feature),R97(Release 1997)C (Functional modification of feature)R98(Release 1998)D (Editorial modification)R99(Release 1999)Detailed explanations of the above categories can be found in 3GPP TR 21.900.REL-4(Release 4) REL-5	
Reason for change	2: # The current NBAP specification is unclear w.r.t. the behaviour the Node B shoul have when a measurement has the identifier set to 'ALLNBCC' but the communication contexts belong to different ddModes, not all supporting that measurement.	d
Summary of chang	(A sentence is added to clarify that when a measurement is initiated with the (ALLNBCC' id, then it shall be started only for radio links related to communication contexts of a ddmode which supports the indicated measurement	nt
Consequences if not approved:	 * NBAP would be ambiguous w.r.t. this matter. Backward compatibility: this CR is backward compatible with the intended behaviour of the previous version of TS 25.433. 	
Clauses affected:	¥ 8.3.8	
Other specs affected:	X Other core specifications X 25.433 CR 408 R4 Test specifications O&M Specifications	
Other comments:	# This CR was agreed in principle at RAN3 #20	

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.

8.3.8 Dedicated Measurement Initiation

8.3.8.1 General

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

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

8.3.8.2 Successful Operation

CRNC Node B

Figure 38: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the communication control port assigned to the Node B communication context.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the request. Unless specified below the meaning of the parameters are given in other specifications.

If the *Node B Communication Context ID* IE equals the reserved value 'All NBCC', this measurement request shall apply for all current and future Node B Communication Contexts controlled via the Communication Control Port on which the DEDICATED MEASUREMENT INITIATION REQUEST message was received. Otherwise, this measurement request shall apply for the requested Node B Communication Context ID only.

If the *Node B Communication Context ID* IE equals the reserved value 'All NBCC', the measurement request shall be treated as a single measurement, despite applying to multiple contexts. This means that it may only be terminated or failed on 'All NBCC'.

If the *Node B Communication Context ID* IE equals the reserved value 'All NBCC', the measurement shall be initiated only for those Node B Communication Contexts handling a mode (FDD or TDD) for which the concerned measurement is specified in [4] and [5].

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

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

If the *Dedicated Measurement Object Type* IE is set to "ALL RL", measurement results shall be reported for all current and future Radio Links within the Node B Communication Context.

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

[TDD – If DPCH ID is provided within the RL Information the measurement request shall apply for the requested physical channel individually.]

If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the measurement report or in the measurement response, the latter only in the case the *Report Characteristics* IE is set to 'On-Demand'. The reported CFN shall be the CFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *CFN* IE is provided, it indicates the frame for which the first measurement shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

Report characteristics

The Report Characteristics IE is set to how the reporting of the measurement shall be performed.

If the *Report Characteristics* IE is set to 'On-Demand', the Node B shall return the result of the measurement immediately.

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

If the *Report Characteristics* IE is set to 'Event A', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event B', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event C', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time.

If the *Report Characteristics* IE is set to 'Event D', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time.

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

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

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

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

Higher layer filtering

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows

 F_n is the updated filtered measurement result

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

 M_n is the latest received measurement result from physical layer measurements

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

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

Response message

If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message using the communication control port assigned to the Node B communication context. The message shall include the same Measurement ID that was used in the measurement request.

Only in the case when *Report Characteristics* IE is set to "On-Demand", the DEDICATED MEASUREMENT INITIATION RESPONSE message shall contain the measurement result. In this case also the *Dedicated Measurement Object* IE shall be included if it was included in the request message.

In the case that the *Node B Communication Context ID* IE is set to 'All NBCC', the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE shall be set to the value 'All CRNCCC', which is reserved for this purpose.

Interaction with Reset Procedure

If a measurement has been requested with the *Node B Communication Context ID* IE set to 'All NBCC', the Node B shall terminate the measurement locally if either the CRNC or the Node B initiates the Reset procedure for the relevant Communication Control Port or the entire Node B.

3GPP TSG-RAN3 Meeting #21 Busan, South Korea, 21st –25th May, 2001

R3-011403

									CR-Form-v3
CHANGE REQUEST									
¥	25	.433	CR 40	<mark>8</mark> ж	rev	- *	Current vers	sion: 4.0 .	. 0 [#]
For <u>HELP</u> on using this form, see bottom of this page or look at the pop-up text over the \Re symbols.									
Proposed change affects: # (U)SIM ME/UE Radio Access Network X Core Network									Network
Title: ೫	Cla	rificatio	on betweer	n ddMode and	ALLN	IBCC me	easurements		
Source: #	R-V	VG3							
Work item code: %							Date: ೫	May 2001	
Category: Ж	Α						Release: ೫	REL-4	
F (essential correction)2(GSM Phase 2)A (corresponds to a correction in an earlier release)R96(Release 1996)B (Addition of feature),R97(Release 1997)C (Functional modification of feature)R98(Release 1998)D (Editorial modification)R99(Release 1999)Detailed explanations of the above categories can be found in 3GPP TR 21.900.REL-4(Release 4) REL-5									
Reason for change: * NBAP V.3.5.0 was corrected for what regards the initiation of measurement with the identifier set to 'ALLNBCC'. This change is therefore needed also in Release 4.								ement with in Release	
Summary of chang	A ser 'ALLI comr	Intence is added to clarify that when a measurement is initiated with the NBCC' id, then it shall be started only for radio links related to munication contexts of a ddmode which supports the indicated measurement							
Consequences if not approved:	Ħ	NBA Back beha	P would be ward comp viour of the	ambiguous v patibility: this e previous ve	v.r.t. th CR is t rsion o	is matte packward f TS 25.4	r. d compatible y 433.	with the inte	nded
Clauses affected:	ж	8.3.8							
Other specs affected:	ж	X Ot Te Od	her core sp est specifica &M Specific	pecifications ations cations	ж	25.433	CR 407 R99		

Other comments: # This modification was agreed in principle at RAN3 #20 for TS 25.433 V3.5.0.

How to create CRs using this form:

Comprehensive information and tips about how to create CRs can be found at: <u>http://www.3gpp.org/3G_Specs/CRs.htm</u>. 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 <u>ftp://www.3gpp.org/specs/</u> 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.

8.3.8 Dedicated Measurement Initiation

8.3.8.1 General

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

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

8.3.8.2 Successful Operation



Figure 38: Dedicated Measurement Initiation procedure, Successful Operation

The procedure is initiated with a DEDICATED MEASUREMENT INITIATION REQUEST message sent from the CRNC to the Node B using the communication control port assigned to the Node B communication context.

Upon reception, the Node B shall initiate the requested measurement according to the parameters given in the request. Unless specified below the meaning of the parameters are given in other specifications.

If the *Node B Communication Context ID* IE equals the reserved value 'All NBCC', this measurement request shall apply for all current and future Node B Communication Contexts controlled via the Communication Control Port on which the DEDICATED MEASUREMENT INITIATION REQUEST message was received. Otherwise, this measurement request shall apply for the requested Node B Communication Context ID only.

If the *Node B Communication Context ID* IE equals the reserved value 'All NBCC', the measurement request shall be treated as a single measurement, despite applying to multiple contexts. This means that it may only be terminated or failed on 'All NBCC'.

If the Node B Communication Context ID IE equals the reserved value 'All NBCC', the measurement shall be initiated only for those Node B Communication Contexts handling a mode (FDD, 3.84Mcps TDD or 1.28Mcps TDD) for which the concerned measurement is specified in [4] and [5].

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

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

If the *Dedicated Measurement Object Type* IE is set to "ALL RL", measurement results shall be reported for all current and future Radio Links within the Node B Communication Context.

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

[TDD – If DPCH ID is provided within the RL Information the measurement request shall apply for the requested physical channel individually.]

If the *CFN Reporting Indicator* IE is set to "FN Reporting Required", the *CFN* IE shall be included in the measurement report or in the measurement response, the latter only in the case the *Report Characteristics* IE is set to 'On-Demand'. The reported CFN shall be the CFN at the time when the measurement value was reported by the layer 3 filter, referred to as point C in the measurement model [25].

If the *CFN* IE is provided, it indicates the frame for which the first measurement shall be provided. The provided measurement value shall be the one reported by the layer 3 filter, referred to as point C in the measurement model [25].

Report characteristics

The Report Characteristics IE is set to how the reporting of the measurement shall be performed.

If the *Report Characteristics* IE is set to 'On-Demand', the Node B shall return the result of the measurement immediately.

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

If the *Report Characteristics* IE is set to 'Event A', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises above the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event B', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls below the requested threshold and stays there for the requested hysteresis time. If no hysteresis time is given, the Node B shall use the value zero for the hysteresis time.

If the *Report Characteristics* IE is set to 'Event C', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity rises by an amount greater than the requested threshold within the requested time.

If the *Report Characteristics* IE is set to 'Event D', the Node B shall initiate the Dedicated Measurement Reporting procedure when the measured entity falls by an amount greater than the requested threshold within the requested time.

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

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

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

If at the start of the measurement, the reporting criteria are fulfilled for any of Event A, Event B, Event E or Event F, the Node B shall initiate the Dedicated Measurement Reporting procedure immediately, and then continue with the measurements as specified in the DEDICATED MEASUREMENT INITIATION REQUEST message.

Higher layer filtering

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

The averaging shall be performed according to the following formula.

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

The variables in the formula are defined as follows

 F_n is the updated filtered measurement result

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

 M_n is the latest received measurement result from physical layer measurements

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

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

Response message

If the Node B was able to initiate the measurement requested by the CRNC, it shall respond with the DEDICATED MEASUREMENT INITIATION RESPONSE message using the communication control port assigned to the Node B communication context. The message shall include the same Measurement ID that was used in the measurement request.

Only in the case when *Report Characteristics* IE is set to "On-Demand", the DEDICATED MEASUREMENT INITIATION RESPONSE message shall contain the measurement result. In this case also the *Dedicated Measurement Object* IE shall be included if it was included in the request message.

In the case that the *Node B Communication Context ID* IE is set to 'All NBCC', the *CRNC Communication Context ID* IE in the DEDICATED MEASUREMENT INITIATION RESPONSE shall be set to the value 'All CRNCCC', which is reserved for this purpose.

Interaction with Reset Procedure

If a measurement has been requested with the *Node B Communication Context ID* IE set to 'All NBCC', the Node B shall terminate the measurement locally if either the CRNC or the Node B initiates the Reset procedure for the relevant Communication Control Port or the entire Node B.